City Service Delivery Assessment

for

Citywide Inclusive Sanitation

User Guide

April 2020

Contents

Annexes

Abbreviations

CSDA ....City Service Delivery Assessment (for include urban sanitation)
CWIS...........Citywide Inclusive Sanitation
Eawag......... Swiss Federal Institute of Aquatic Science and Technology
FSM ....Faecal Sludge Management
L..................Local level
N ....National level
NGO............Non-Governmental Organisation
Sandec........Department for Sanitation in Developing countries at Eawag
SFD.............Faecal Waste Flow diagram
WSUP ....Water and Sanitation for the Urban Poor

Acknowledgements

1 Introduction

1.1 Purpose of this guide

This User Guide describes and provides recommendations on how to use the City Service Delivery Assessment (CSDA) for Citywide Inclusive Sanitation.

The CSDA tool needs to be adapted for every situation and context, so this is not a prescriptive step-by-step guide. Just as with a saw or a chisel, it is the skill of the user which determines the result.

1.2 Objective of the CSDA tool

A Faecal Waste Flow Diagram (SFD) illustrates the sanitation situation in a city, but not the underlying reasons for that situation. The CSDA is a complementary tool to assess *why* the situation is as it is. It supports a systematic process for working with stakeholders to assess the enabling environment for Citywide Inclusive Sanitation (CWIS). It is accompanied by an Action Checklist to help stakeholders identify and prioritise immediate and follow-up actions to improve the enabling environment to facilitate the delivery and sustained operation of sanitation services.

The tool is not designed to undertake in-depth detailed reviews on, for example, sanitation legislation or monitoring systems. Such detailed reports *may* be required later when the situation is understood by the stakeholders and they have agreed on the priority next steps.

1.3 Components of the CSDA tool

The CSDA is similar to other tools for reviewing the urban sanitation enabling environment. In particular, it has similarities to the sanitation aspect of WSUP's Evaluative framework for urban WASH sector functionality although the WSUP framework is designed to be applied at national, rather than city level. There are also parallels with IWA's Sanitation 21; Eawag's institutional 'flower diagram' and Pippa Scott's Sanitation Cityscape Conceptual Framework.

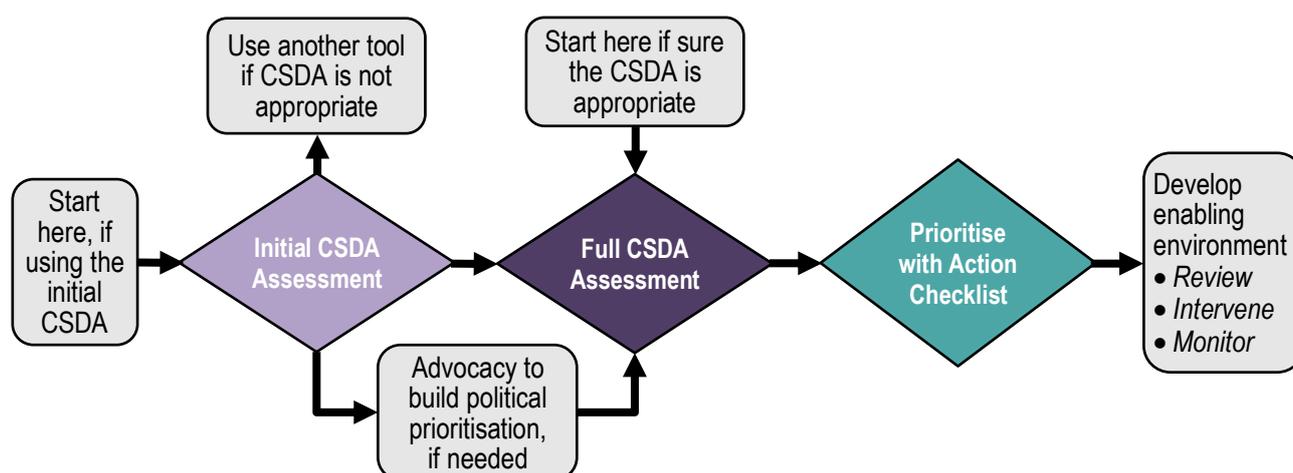*Figure 1 Sequence of CSDA components*

The CSDA tool has three main components:

1) An Initial Assessment, which gives a rapid high-level overview;
2) A Full Assessment, which analyses the enabling environment in more detail; and
3) An Action Checklist, which sets out for consideration a number of interventions which have been found useful in improving sanitation services.

The CSDA can be started at the Initial Assessment stage or with the Full Assessment, as shown in Figure 1. However, a full CSDA assessment is needed to enable to the Action Checklist to be usefully applied.

1.4 Who should use the CSDA, and how?

The CSDA tool will generally be used by consultants, facilitators or in-house specialists as a means of **working with stakeholders** at city or town level to produce the CSDA graphics with their traffic-light scoring of the various components of the enabling environment.

The CSDA graphics are intended to support a process of discussion and decision-making on sanitation, with government decision-makers, utilities, municipal authorities, service providers, sanitation users, development partners and any other key stakeholders.

They are best used as follows:

- **CSDA tool:** Evidence-based project design work is often outsourced to consultants but may also be carried out in-house by staff of city-level or national institutions, development partners or financing institutions. Whatever the case, they will need appropriate expertise, sufficient capacity and the **means to apply it in a participatory manner with stakeholders**. The evidence and recommendations prepared by these specialists must be discussed, modified where necessary and validated with the various stakeholders.

- **CSDA graphics:** The CSDA graphics, and recommendations based on the dialogue which they support, will typically be used in stakeholder meetings and project or program concept, preparation and design documents. The CSDA graphics therefore need to be easily comprehensible and accessible to decision-makers with both technical and non-technical backgrounds, in government, utilities, municipal authorities, development partners and financing institutions.

The CSDA applies to the local/city level, because sanitation services are provided at this level. However, there is also usually a role for national government stakeholders, through their overall responsibility for policy, legislation, transfers to local budgets and monitoring progress and compliance.

To be effective, the CSDA needs a creative facilitator who can work well with the stakeholders. The CSDA may be used as a checklist or discussion starter with stakeholders on an individual basis, or in a group setting or workshop, to discuss and agree on the ratings, based on evidence. As sanitation interventions usually include technical assistance, resources are often available for such facilitation. However, care is needed in selecting the right person, with sufficient experience, insight and credibility with the stakeholders.

> The CSDA is **not** designed for consultants, donors or NGOs to assess or report on a city sanitation situation 'externally'. The CSDA graphic should not be presented to stakeholders as a *fait accompli*. This is especially true when the sanitation situation is poor, and the traffic lights are mostly red. Such a use of it may be counterproductive as the stakeholders may not understand the ratings, nor appreciate being publicly shamed because they are not performing well. Where most of the traffic lights are red, greater tact, sensitivity and facilitation skills are needed.

Prior discussion of ratings with the local personnel working in each specific area is a good starting point to support subsequent buy-in by the decision-makers.

Once the stakeholders agree and understand the CSDA, and are motivated to continue, the next step is to identify and agree on which specific actions to prioritise. This is discussed below in Section 6 on the Action Checklist.

1.5 Where to use the CSDA and its limitations

The CSDA has been especially useful in situations where:

- An SFD has been completed, but the stakeholders and decision-makers do not yet have a clear idea of what is required to improve the sanitation situation – but are motivated to improve it;
- Citywide inclusive sanitation is a new or emerging concept, and stakeholders have not yet worked together;
- Sanitation development has not previously been addressed in a systematic way, but there is some stakeholder interest in doing so.

However, the CSDA is not necessarily suitable everywhere. Some situations where it may be difficult or unsuitable are summarized in Table 1.

Table 1 Less Suitable Circumstances for Applying the CSDA

Circumstances	Explanations and suggestions
Where decision makers are not yet motivated and willing to prioritize actions to improve sanitation.	An SFD and initial CSDA could be undertaken to make a joint decision whether the full CSDA would be useful. A programme of advocacy using the SFD and other tools (such as estimates of the social and economic impacts of poor sanitation) may be useful to trigger a discussion among the stakeholders.
Where many reports on the enabling environment for sanitation have already been produced.	Stakeholders may be well aware of what the situation is and will not be interested to discuss it again. Perhaps acting on the previous reports is more useful than another assessment. However, if there has been no action, it may be appropriate to recruit a champion and advocate with decision-makers for improved sanitation.
Where a more specifically relevant local tool exists.	For example, India has various FSM and CWIS tools, and more under development. There may be one available which is more nuanced and suitable for the local context.
Where no facilitator or consultant is available to facilitate the process.	This situation is rare and usually someone with sanitation knowledge and facilitation skills can be hired or brought in from nearby. It may also be possible for the initial CSDA to be undertaken by local officials without an external facilitator.

2 Stakeholder engagement

The CSDA tool is used together with sanitation stakeholders. This requires identifying them, and analysing who are the essential participants for developing citywide inclusive sanitation services. This process will be familiar to most users and in many situations the stakeholders will be well known. Section 2.1 "Identifying stakeholders" and 2.2 "Stakeholder mapping and analysis" below outline common standard practices.

2.1 Identifying stakeholders

A stakeholder can be defined as: *"Any organisation or individual with an interest in or influence on sanitation".* Interests may be (for example) financial, moral, legal, personal, community-based, direct or indirect, active or passive.

First identify the stakeholders and list them in a stakeholder analysis table.[1] Annex 1 provides a reference list of typical stakeholders for sewered and non sewered sanitation to help check everyone has been included.

The decision-makers are important stakeholders, but in larger cities, they may be too busy to attend the CSDA meetings. However, in smaller towns, or where they are especially motivated, they may choose to attend meetings in person. Where the decision-makers do not attend, their staff are likely to represent their institution(s) in the 'stakeholder working group'. The decision-makers then become the 'target' for the CSDA graphics as described in Section 1.4 above.

2.2 Stakeholder mapping and analysis

There is likely to be a long list of stakeholders, but it is not necessary or realistic to involve them all. A mapping process will identify which are the important stakeholders for a specific topic, such as "developing the enabling environment for citywide sanitation in X City".

There are many tools available for stakeholder analysis, and a stakeholder analysis map might look like the one shown in Figure 2 prepared for Dhaka, Bangladesh.[2]
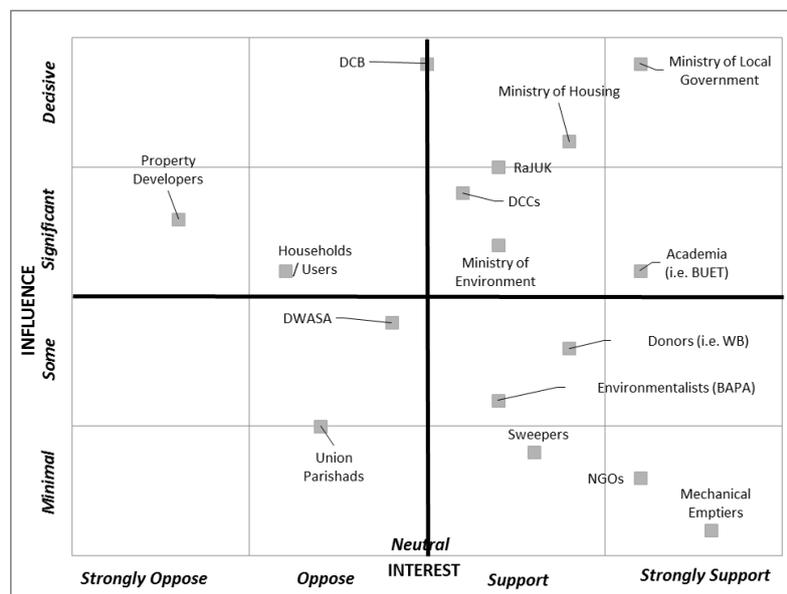
Figure 2: Stakeholder Analysis

When considering service delivery options, it is essential to consider how stakeholders might respond, bearing in mind what they stand to gain or lose from any change. Combining information about stakeholders' interests with an analysis of their relative influence enables the identification of the most important stakeholders to partner with, and also those who could potentially frustrate progress and need to be brought onside.

2.3 Terminology and geographical scope

Every city has its own terminology, acronyms and definitions and many countries do not work in English. The CSDA has been developed using (as far as possible) generic, commonly used global terms. CSDA users will need to use local terms which the stakeholders understand and use local definitions. And if translating the CSDA, beware of the different nuances.

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[1] For example, using a Stakeholder Analysis Template, accessed on 25 July 2019. Also, see Annex 1
[2] For example https://www.wordtemplatesonline.net/stakeholder-analysis-template/, accessed on 13 August 2019

Annex 3 includes a description of how some key terms have been used in the CSDA as presented here, but this does not mean that users will necessarily apply the same words, or with the same meanings. To enable meaningful and productive discussions in each city, stakeholders need to agree the meaning of key words. In many cases, accepted definitions will be available and useful. In other situations, terms may be less clear (or even vary between departments and Ministries) and the stakeholders will need to discuss and agree compromises and working definitions.

Agreement on the geographical scope of the town or city is also important. See Annex 3 for a further discussion.

A discussion with the stakeholders of the key terms outlined in Annex 3 will help not only to establish a common basis for dialogue, but may also trigger substantive consideration of how to deal with potentially difficult issues such as inclusion and informal settlements.

2.4   Working with stakeholders

Some of the advantages and reasons for taking a collaborative approach are:

- *Participation of stakeholders:* They need to understand the process, the questions which are relevant to them and to agree how the evidence translates into the indicator scores. Make sure everyone has a copy of the city SFD – to remind them why the CSDA is being undertaken.

- *A collaborative process*: of data-gathering and interviews will provide opportunities to explain the process, share the questions and discuss evidence and possible scoring. This will create mutual understanding and ownership between different departments and agencies of the findings, the CSDA graphic and subsequent decisions on sanitation.

- *Evidence and data:* The scoring should be based as far as possible on objective evidence, although judgement will also be needed on some issues. See 0 for some suggestions on data sources. The stakeholders are best placed to know and identify sources of evidence and know their credibility.

- *Key informant interviews:* These are an important way of obtaining evidence and involving stakeholders. Visiting people in their offices shows respect for their time, informs you about the institution, and may enable the interviewee to speak more freely than in a public setting.

- *Proposing some scores:* may be useful when the score is based on objective evidence (for example, official documents and data). However, the scores still need to be discussed and validated or changed by the stakeholders, so they understand the score, and especially any low scores.

- *Workshops:* are time consuming but useful for bringing stakeholders together; debating unclear or controversial scores and seeking consensus. This will enable the CSDA to be presented to decision-makers with the backing of a wide group of stakeholders.

3   The CSDA tool

The Full CSDA is structured around three pillars:

- Enabling: the policy, legal and institutional environment
- Delivering: the resources and mechanisms available to improve sanitation
- Sustaining: the operating environment, funding and personnel needed to provide ongoing and sustainable sanitation services

Each pillar is composed of three building blocks, of which one focuses on inclusion. Each building block, in turn, is composed of between one and four indicators, or specific questions,

which are each assigned a score during the assessment process. Separate assessments are made for each of the three steps in the service chain.

The tool calculates a mean value for each step of the service chain in each building block, and presents it in traffic light form – green for satisfactory, yellow for improving, and red for poor.

The Initial CSDA is similar, but simpler, with only a few indicators (questions), which are not aggregated into building blocks and the inclusion indicators are not disaggregated along the service chain.

Separate assessments are made for sewered and non-sewered sanitation, while inclusion is assessed independently of sanitation type.

The CSDA tool is presented as an MS-Excel spreadsheet, which can be downloaded from CSDA Tool. It has 7 tabs:

1. Index and introduction
2. Initial CSDA input
3. Initial CSDA graphic
4. Full CSDA input
5. Full CSDA graphic
6. CSDA linkage to the checklist
7. Action Checklist

Tabs 2 and 4 allow for the input of scores in answer to the questions set out in the worksheets, and tabs 3 and 5 contain the respective CSDA graphics produced from the scores. The scope of the initial and full CSDA is explained in the relevant sections below.

Tab 6 shows the main linkages between the CSDA building blocks and the Action Checklist thematic areas. These are also listed in Annex 4.

Tab 7 contains the Action Checklist, which lists actions that have often been found relevant to improving sanitation. Again, this is explained in more detail below.

4 Initial CSDA

4.1 Objective

The objectives of the initial CSDA are a rapid assessment of:

- The **overall status** of sewered and non-sewered sanitation services, based on safe and unsafe faecal flows summarised in the citywide SFD, and the existence of legal and institutional frameworks for managing them; and

- **Inclusion**, based on political, institutional and legal commitment to including low-income communities and vulnerable groups, and the overall performance of the sanitation services delivered to them.

The initial assessment **process** enables stakeholders to decide whether:

Note: Inclusion is not assessed along the service chain

Figure 3: Example of an initial CSDA graphic

- Advocacy is needed to build more stakeholder engagement first; or
- The CSDA is a useful tool, and they wish to proceed directly to a full CSDA; or
- They wish to assess the enabling environment in a different way.

An initial CSDA output diagram is shown in Figure 3. The questions for sewered and non-sewered sanitation are different, as commonly found impediments to the provision of effective sewered and non-sewered sanitation services are also different. For example, lack of recurrent funding for operation and maintenance of sewerage systems is a common issue, while for non-sewered systems, lack of adequate legislation and regulation often means that they cannot be effectively managed.

4.2 Process for working with stakeholders

1. Identify the stakeholders (based on local knowledge and reviewing the checklist in 0). Map them to select the more important participants.[3] If you know the sanitation stakeholders well, you may not need to do this formally. However, do check that no important stakeholders have been omitted.

2. Review the Initial CSDA indicator questions and adapt the wording to be easily understood in the local context.

3. Hold a stakeholder meeting using the city SFD and introduce the CSDA tool. Decide whether to start with an initial assessment or the full CSDA.

4. Address the indicator questions, collecting the relevant data (see Annex 2 on data sources) and holding key informant interviews, identifying which informants can provide insight on which questions. For example, you could discuss:

   "Are there defined institutional mandates for managing non-sewered sanitation, and are they adequately structured, financed and staffed?" with the health, environmental
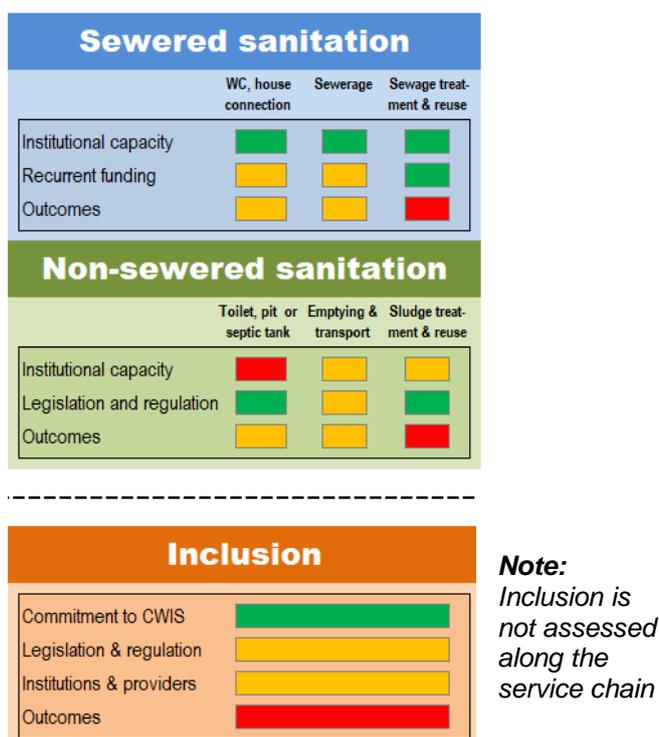
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[3] ibid

sanitation and finance departments in the City Council, active development partners, NGOs and maybe the water and sewerage utility.

"Are tariffs and transfers adequate for operation and maintenance (of the sewer network) and to expand the system to meet demand?" with the sewerage, customer relations and finance sections of the water and sewerage authority, the City Council and a few involved development partners.

"Is the local leadership committed to an inclusive approach aiming to deliver sanitation services to all urban dwellers?" in an indirect way, with politicians and senior officials from relevant departments – but also more directly with the staff of the utility and City Council, and with user focus groups. Do they see evidence that the leaders are making meaningful responses and putting them into action?

5. When you have draft scores and graphic with a degree of stakeholder agreement, call a meeting to discuss the draft findings. It may be better not to score all the indicators (especially where you received conflicting advice), as discussing them together can bring interesting perspectives into the open. For the scores you have assigned, if a majority disagree with your scoring and can provide evidence, be prepared to change the score. If there is a lot of red on the graphic, it may be useful to have another round of individual key informant interviews to review the scores before taking them to a stakeholder group meeting.

Use the SFD as a 'reality check'. If many ratings are good (green) but the SFD shows a high proportion of unsafely managed faecal waste, then the indicator scores will almost certainly need to be reviewed.

6. When you have a graphic acceptable to stakeholders, discuss the way forward. Some options are shown in Table 2:

Table 2: Initial CSDA and next steps

Characteristics of the initial CSDA and process	Suggested next steps
Red or yellow for sanitation legislation and mandates Red for leadership commitment to CWIS and other inclusion ratings. Limited engagement and interest in the initial CSDA process.	A period of advocacy to get more support for CWIS approaches. When leaders are committed, revisit the decision and consider undertaking a full CSDA or use another approach.
Red or yellow for sanitation legislation and mandates Yellow or green for leadership commitment to CWIS and other inclusion ratings. Strong stakeholder engagement in the initial CSDA process.	Undertake a full CSDA if stakeholders agree this would be an effective way to identify next steps and actions needed.
Red, yellow or green for sanitation legislation and mandates. Stakeholders do not find the CSDA process or graphic useful.	Use a different process for looking at what underlies the unsafe flows shown on the SFD.

This process may take one to two weeks, depending on how long it takes to set up meetings and gain access to information.

The graphic could also be developed during an inception workshop and be included as part of an inception report. Alternatively, stakeholders could develop it on their own.

5 The full CSDA

5.1 CWIS – Sewered and non-sewered sanitation

A full CSDA is undertaken through a process similar to the initial CSDA. An example of a full CSDA diagram is shown in Figure 4. However, there are a few differences, including:

Figure 4: A Full CSDA output diagram

- Inclusion is integrated with the sewered and non-sewered services diagrams.
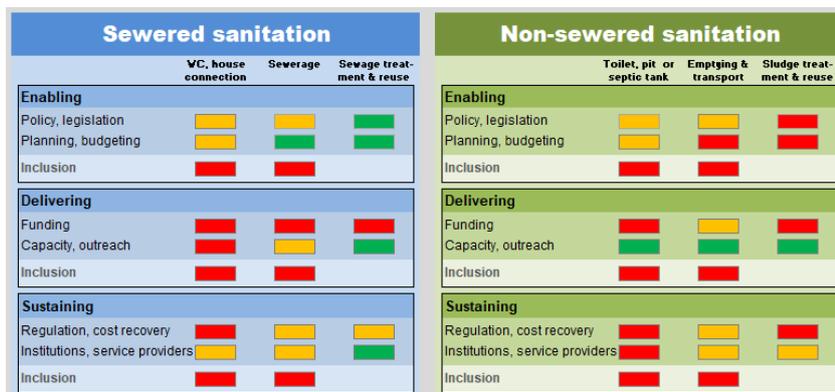- More data is needed, and the **involvement of stakeholders** in collecting data and evidence is even more important.
- Some of the questions are more difficult and stakeholders may need help to interpret them. Using local language and terminology may help. See Section 2.3 and Annex 3.
- The results should be discussed with the SFD visible to the group so the facilitator can refer to it.
- The final graphic should be discussed with decision-makers, and used to lead into a discussion about priority actions.

5.2 Cities with only non-sewered sanitation

Some cities and towns may have only non-sewered sanitation. The CSDA tool can still be used for assessing non-sewered sanitation only. The easiest way to do this is by 'hiding' the blue cells corresponding to sewerage.

Other cities may currently rely entirely on non-sewered sanitation but are also developing a sewerage system. In this case the CSDA ratings for sewerage can be used to raise broad awareness and stakeholder support for the range of actions needed for enabling, delivering and sustaining a sewerage system, well ahead of building and commissioning it.

6 What Next? Use the Action Checklist

6.1 Objective of the Action Checklist

The objective of the Action Checklist is to provide users with a checklist of possible 'next steps' arising from the CSDA to support the discussion on identifying and prioritising interventions. It aims to help users answer the question *"Now we know why sanitation services are working or not – what do we do next?"*

The overall goal of using the CSDA and Action Checklist together is to improve the institutional enabling environment to enable, deliver and sustain citywide sanitation services.

6.2 Reading the Action Checklist

Figure 5 shows of part of the Action Checklist. It lists a series of actions to improve sanitation services. It is not exhaustive and will need to be supplemented by other actions tailored to the specific local situation. However, it is based on substantial international field experience, and has been reviewed by many practitioners and applied academics. It can guide users to identify a series of possible priority actions to consider.

This sections below explain the main features of the Action Checklist.

6.2.1 Checklist Thematic areas

The left-hand column divides the actions into broad thematic areas. These categories overlap and could be arranged

Figure 5: The Action Checklist

in many ways. Tab 6 on the workbook provides a table which links these thematic areas with the building blocks of the CSDA.

6.2.2 Checklist Columns

The wider columns of the Action Checklist contain suggestions for actions, classified as:

- **Basic:** Actions corresponding to red building block scores from the CSDA, where there is little to build on, and it is necessary to start from a basic level;
- **Intermediate:** Actions corresponding to yellow building block scores from the CSDA, where there is at least something to build on, but much progress remains to be made;
- **Consolidating:** Actions corresponding to green building block scores from the CSDA, where functional sanitation is in place, but standards can be raised.

These columns are coded as red, yellow and green respectively, and link with the CSDA traffic light scores, which have the following meanings:

- Green: well managed
- Yellow: an emerging or partial enabling environment
- Red: poorly managed or non-existent sanitation services

Where sanitation is poorly managed, more needs to be done than where it is well managed. Therefore, the "Basic" column has a longer list of suggested actions than the "Intermediate" one, which is longer than the "Consolidating" one. The actions in the "Basic" column will generally have a higher priority than those in the "Intermediate" column, which in turn take priority over those in the "Consolidating" column

6.2.3 Checklist Cells

Suggested actions are set out in the Action Checklist, with the cells coloured as explained in Table 3.

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Colour of cells	Explanation
Foundations for citywide inclusive sanitation	The light orange cells apply in all cases and refer to sewered and non-sewered sanitation services alike. They could apply in all cities and towns where sanitation services are not yet available to everyone, and where the SFD shows any proportion of unsafely managed faecal waste.
Developing the enabling environment for non-sewered sanitation	The light green cells refer to developing non-sewered sanitation services, which include onsite facilities and FSM. These will also be relevant in all cities and towns, together with the light orange 'inclusive sanitation' cells.
Developing the enabling environment for sewered sanitation	The light blue cells refer to sewered sanitation services. In some cities and towns these actions may not be applicable if there is no sewerage system. In a city that is considering, planning or building its first sewerage system, it would be advisable to review all these cells to make sure that components of the enabling environment are not overlooked.
Actions for	In a situation where the CSDA contains many red traffic lights, the darker-shaded cells make suggestions on immediate actions to improve the sanitation situation in the short term. Many other actions will be necessary, but these may have an immediate benefit and could be considered first.
immediate	
sanitation impact	They may be foundational city-wide actions (orange) or actions on non-sewered (green) or sewered sanitation (blue).

6.2.4 Checklist rows

Most of the checklist suggestions follow a left to right sequence, proposing incremental changes as learned from real-life examples of sanitation development. This means the intermediate action will build on the basic action and the consolidating action on the intermediate one. An example is given below in Figure 6:

Figure 6: Left to right consolidation of actions

Some actions, such as establishing a monitoring system at the basic or intermediate level, may be separate for sewered and non-sewered sanitation, but at the consolidating level should become a citywide sanitation monitoring system, and hence the cells change from blue and green to light orange.

Some cities may move quickly from left to right for some actions, for historical or political reasons. This can be good, if the other essential activities on the left side of the Action Checklist table are not left far behind. For example, investing in a comprehensive system to regulate pollution to receiving waters is a good move, but if the domestic and neighbourhood environment is still plagued by widespread open defecation, overflowing pit latrines and indiscriminate disposal of faecal waste, it may not yield much benefit.

6.2.5 Level

As outlined in black in Figure 7, the narrow columns to the right of the action cells contain L (Local) or N (National) – or both – as outlined in the three black boxes below. These indicate the level to which the suggestion *may* apply. This will however vary from country to country. In some countries the State, Provincial or Regional Government may substitute for National Government or have an additional role.

Users of the Action Checklist at city level will mainly focus on local actions, though they may need to lobby national government to take complementary actions at national level. Conversely, national Action Checklist users (although they are not the main target audience, their involvement could often be valuable) will need to focus on the national actions, but will also need to promote, support, facilitate and build capacity in the cities to undertake their roles at local level. Once again, this will vary between countries.

Thematic area	Action focus	Basic actions	Level	Intermediate actions	Level	Consolidating actions	Level
Policy, Legislation, Regulation	Overall	Review and update national sanitation policies to ensure all aspects of CWIS are addressed	N, L	Disseminate and apply CWIS policies	N, L	Strengthen regulatory powers across whole CWIS service chain	N
		Review regulatory framework for the protection of public health and environment	N, L	Set norms / standards for public health and environmental protection	L	Regulate pollution of receiving waters	N, L
		Design programme to equip, train and motivate environmental health staff to enforce sanitation rules	N, L	Strengthen enforcement of environmental and public health regulations	L		
	Non-sewered sanitation	Review and establish or strengthen legal basis for regulation of FSM services	N	Introduce regulation of service providers	L		
		Review and establish or improve byelaws addressing on-site systems and FSM services	L	Strengthen FSM byelaws	L		
		Formally recognize existing informal FSM service providers in regulations and legislation	L	Develop "one-stop shop" licensing arrangements	L		
		Require and enable service providers to dispose of all faecal sludge safely	L	Incentivise faecal sludge disposal at recognized sites and introduce sanctions for illegal dumping	L		

Figure 7: 'Level' Columns in the Action Checklist

In any given situation, many more actions will be needed, and the Action Checklist only provides a limited checklist of possible priority actions. Each of them will need elaborating and unpacking to meet the needs of a specific city.

6.3 Applying the checklist suggestions

The suggested actions in the Action Checklist are based on lessons learned about appropriate and emerging practice from developing and operating sanitation systems in many countries.

The next step is to review and discuss which of the suggestions apply in the town or city of interest, and what the suggestions will mean in practice. They also need to be applied for the specific sanitation chain component that is being considered and in the light of local practicalities, politics, resources and capacity. Doing this requires knowledge and inputs from people with both local and wider sanitation experience, which can be supplemented by references, case studies and further study.

For example, the CSDA shows a red building block which links to the financing thematic area. Sewerage is not under consideration, so the overall (light orange) and non-sewered sanitation (light green) actions are relevant. Although the CSDA building block is red, corresponding to the Basic actions, it may also be useful to look across to the next column (Intermediate) as well, to see if it contains any appropriate actions. Suggested actions are therefore those

Thematic area	Action focus	Basic actions	Level	Intermediate actions	Level	Consolidating actions	Level
Financing	Overall	Identify the financing required to address service improvements to the poorest	L	Introduce specific pro-poor financial arrangements (such as targeted subsidies)	N, L	Identify opportunities for financial flows generated from the sale of treatment end-products	L
		Develop costing and tariff models for sanitation	N, L	Establish revenue streams (e.g. water bill surcharge, extra property tax)	L		
		Identify funds needed for inclusive sanitation services and introduce practical demand-led financing mechanisms					
	Non-sewered sanitation	Build awareness and agreement around the budgetary requirements for FSM services	N, L	Develop programs with inclusive FSM funding windows and incentives for cities	N	Mobilize finance for faceal sludge processing, re-use and disposal	N, L
	Sewered sanitation	Build awareness and agreement around the budgetary requirements for sewerage services	N, L	Develop and implement programs with sewerage funding windows and incentives for cities	N		
				Develop and implement improved financing model for sewer connections	N, L		

Figure 8 below. The suggested action for non-sewered sanitation is to *"Build awareness and agreement around the budgetary requirements for FSM services"*

Thematic area	Action focus	Basic actions	Level	Intermediate actions	Level	Consolidating actions	Level
Financing	Overall	Identify the financing required to address service improvements to the poorest	L	Introduce specific pro-poor financial arrangements (such as targeted subsidies)	N, L	Identify opportunities for financial flows generated from the sale of treatment end-products	L
		Develop costing and tariff models for sanitation	N, L	Establish revenue streams (e.g. water bill surcharge, extra property tax)	L		
		Identify funds needed for inclusive sanitation services and introduce practical demand-led financing mechanisms					
	Non-sewered sanitation	Build awareness and agreement around the budgetary requirements for FSM services	N, L	Develop programs with inclusive FSM funding windows and incentives for cities	N	Mobilize finance for faceal sludge processing, re-use and disposal	N, L
	Sewered sanitation	Build awareness and agreement around the budgetary requirements for sewerage services	N, L	Develop and implement programs with sewerage funding windows and incentives for cities	N		
				Develop and implement improved financing model for sewer connections	N, L		

Figure 8: Example of how to use the checklist suggestions along the sanitation chain

How this might be put into practice depends on which part of the sanitation chain has produced the red traffic light. If the red traffic light refers to the:

- ***Toilet, pit or septic tank stage*** it may mean, for example promoting awareness and facilitating agreement on budgets for:
  - Staff time to promote household construction of improved toilets
  - Campaigns and media to promote household construction of improve toilets
  - In some places, subsidies for latrine construction
  - Developing better, lower-cost latrine designs and training builders to build them.

- ***Emptying and transport stage***, it could mean promoting awareness and facilitating agreement on budgets for:
  - FSM management in the utility or city council (wherever the mandate is)
  - Building capacity and supporting the development of private sector service providers

- ***Sludge treatment and reuse stage***, it could include budgets to:
  - Build or upgrade an existing septage treatment works (if that is needed, based on the SFD report and other CSDA ratings), or
  - Add a sludge discharge/receiving chamber; solid-liquid separation and drying bed to a sewage treatment plant

The suggestions in the light orange "Overall" cells should be processed in a similar way.

The options identified should be considered by the consultant/facilitator/user and discussed with stakeholders. The agreed actions could then be prioritized taking account of the local circumstances, resources, capacity and political priorities. More information about how to develop these priority actions can be found in the bibliography below.

6.4 General considerations

- This tool aims to stimulate thinking and support professional judgement, not to substitute it.
- Aim for a balance between all the proposed actions and briefly review the actions to the left and right of the cells of focus.
- Don't mistake conducting a review, study or survey for actually improving the sanitation situation. Most well-planned and informed action will be *preceded* by a review or study, but until the action happens and is sustained, no changes will be possible.
- Likewise, building infrastructure alone is never going to deliver sanitation services. However, it is often a *part* of what is needed.

7   Bibliography

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Compendium of Sanitation Systems and Technologies Eawag/ Sandec, 2015 Tilley, E., et al. 2008, Compendium of Sanitation Systems and Technologies, Water Supply and Sanitation Collaborative Council, Dübendorf, Eawag/ Sandec and Geneva

SFD Promotion Initiative website

FSM Toolbox
The Sanitation Cityscape Conceptual Framework – understanding urban sanitation systems

Annexes

Annex 1: Typical stakeholder lists

The stakeholders will vary from city to city; these lists are no more than examples to consider.

Sewered sanitation stakeholders

Function	Interface Containment	Emptying Conveyance	Treatment Re-use
Policy and legislation	• National and Local Government officials and politicians • Mayor	• National and local Government officials and politicians • Mayor	• National Government officials and politicians • Environment agency • Environmental NGOs

Regulation	• National and Local Government departments
	  - Dept. of Health
	  - Dept. of Planning
	• Ministry of Housing
	• Local politicians
	• Mayor
		• Local Government
		• Regulator
		• Utilities and private sector service providers
		• National and local politicians
		• Mayor
			• Local Government
			• Environment agency
			• Environmental NGOs
			• Regulator
			• Private sector operators (if any)
			• National politicians

Funding and finance	• Householders • Landlords • Property developers • Ministry of Finance • Local Government • Development banks and development partners • NGOs	• Ministry of Finance • Local Government • Development banks and development partners • NGOs • Utilities and private sector service providers	• Ministry of Finance • Development banks and development partners • Utilities and private sector service providers
Service delivery	• Local Government • Householders • Landlords • Housing developers, contractors, plumbers, builders • Hardware stores and suppliers	• Water & sewerage utility or Local Government Department • Householders • Landlords • Housing developers	• Water & sewerage utility or Local Government Department • Private sector operators (if any) • Regulator
Technical assistance to service providers	• Local Government • Development banks and development partners • NGOs • Consultants	• National and Local Government • Development banks and development partners • NGOs • Consultants • Contractors	• National and Local Government • Development banks and development partners • NGOs • Consultants • Contractors

Non-sewered sanitation stakeholders

Function	Interface Containment	Emptying Conveyance	Treatment Re-use
Policy and legislation	• National and Local Government officials and politicians • NGOs and CBOs • Mayor	• National Ministries • Regional and Local Government officials and politicians • NGOs and CBOs • Mayor	• National Ministries • Regional Government officials and politicians • Environment agency • Environmental NGOs

Regulation	• National and Local Government departments
	   - Dept. of Health
	   - Dept. of Planning
	• Ministry of Housing
	• Standards Authorities
		• Local Government politicians and officials
		• Standards Authorities
		• Private sector emptying services – mechanical or manual (Associations)
		• Local business licencing authorities
			• National Government politicians and officials.
			• Environment agency
			• Environmental NGOs
			• Private sector operators (if any)

Funding and finance	• Householders • National and Local Government • Development banks and development partners • NGOs	• National and Local Government	• National and Local Government • Mayor
Service delivery	• Masons, plumbers, artisans, builders • CBOs/NGOs • Householders • Landlords • Property developers • Labour Unions	• Private sector emptying services – mechanical or manual (Associations) • Council or utility emptying services • Consultants • NGOs	• Water & sewerage utility or Local Government Department • Private sector operators (if any) • Regulator
Technical assistance to service providers	• Local Government • Development banks and development partners • NGOs	• National and Local Government • Development banks and development partners • NGOs • Consultants • Contractors	• National and Local Government • Development banks and development partners • NGOs • Consultants • Contractors
Advocacy & information	• Academia, Journalists,		

Annex 2: Data sources

Typical data sources include:

- Government policy documents, legislation, regulations, byelaws, etc.
- Recent census and household surveys
- Reports issued by the Ministry of Finance, including budget expenditure reports
- Regulator and audit reports
- Government and City annual and mid-term plans
- Key informant interviews and focus group discussions
- Utility annual reports, sewage and septage treatment plant operational reports
- Studies, workshop reports, assessments, reports and evaluations produced by development banks, development partners and NGOs

Annex 3: Terms used in the CSDA

Terminology and wording vary from place to place. The meanings of some key terms used in this User Guide and the CSDA spreadsheet tool are described below. However, alternative words or differently defined meanings may need to be used in specific situations.

Inclusive:
Inclusive of everyone, day and night, whether they are at home or away from home.

This means everyone in the town or city, and its peri-urban areas, whether formally or informally settled. It includes while people are at home and away from home – at school, at work, trading at the market, using public transport, shopping, tourists etc. It also includes daily migrant workers (commuters); all ethnic groups, genders, and people with physical and mental disabilities; babies, infants, youth and senior citizens, and people living in institutions such as hospitals, prisons, educational establishments. Deliberate efforts are needed to ensure that people who are poor, marginalized or vulnerable for other reasons are included.

Informal settlements:
Areas occupied in an unplanned manner, usually with limited or no legal land tenure

These may be called slums, favelas, barrios, low-income areas, shanty towns, peri-urban areas etc. They can be within the designated city limits or around the city outskirts. They are often low-income but not necessarily so, and may include a mix of housing types and income levels.

Typical characteristics include *limited or non-existent land tenure* and often a high proportion of rented rooms or houses. They have *poor infrastructure* such as unmade roads, little drainage, limited or no water and electricity supply, or illegal connections. They also *lack basic services* such as refuse collection, street lighting, public toilets, formal shopping areas, schools, hospitals and other institutions. Sanitation is likely to be non-existent or of poor quality, and self-supplied or provided by informal providers. Open defecation rates may be high. UN-Habitat uses poor sanitation as a criterion for defining a slum.[4]

In some countries, such informal settlements are being systematically formalized and tenure given to residents. In others, the Government maintains a position that the areas will be cleared, redeveloped and residents moved. In yet others, there is no formal position either way and the status quo continues, in a legal penumbra.

Sanitation:
The management of faecal waste flows from domestic, institutional and other premises

This is the most restrictive definition of sanitation, and the one used in the CSDA. It focuses on faecal waste flows, which represent the greatest public health hazard in residential areas and domestic environments. When used, the term environmental sanitation also includes solid waste and drainage management. In many languages, similar words (such as *saneamento* in Portuguese) may also include water supply.

City or Town:
A contiguously occupied area of medium to high population density

This is rarely the same as the formal boundary of the city or town. In some countries, municipalities include both urban areas and the rural areas around them, while in others, urban areas extend far beyond the officially defined city limits, often including significant areas of informal settlements. In some cases, a city may in functional terms comprise a mixture of metropolitan, urban and rural districts, with different powers and revenue potentials.

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[4] Some Slum definitions, UN Habitat, 2007
http://mirror.unhabitat.org/documents/media_centre/sowcr2006/SOWCR%205.pdf

From a sanitation perspective, the defining factor is density of occupation, which multiplies the probability of faecal contamination from one person to another. When analysing the sanitation situation, it is essential to consider all of the contiguously occupied area, even if the solutions will have to be managed by different entities. The faecal pathogens as the disease agents are not limited by formal boundaries.

All humans defecate, and in doing so, unless the sanitation system is safely managed, the pathogens they excrete can endanger all other residents. A citywide inclusive sanitation system must take account of all faecal waste irrespective of where and by whom it is produced.

A city or town may thus range from a large area under multiple jurisdictions to quite a small area forming only part of a single jurisdiction. It is therefore usually necessary to define and agree the area under study before starting an assessment. Where it does not fall neatly into administrative units, care will be needed in using official statistics.

Annex 4: Linkages between the CSDA and the Action Checklist

CSDA Building block	Action checklist thematic areas
Enabling	
Policy, legislation	- Policy, legislation, and regulation - Institutional arrangements
Planning, finance	- Planning - Financing
Inclusion	- Policy, legislation, and regulation - Planning - Financing
Delivering	
Finance	Financing
Capacity, outreach	- Institutions - Promotion and user engagement - Capacity, TA and technology
Inclusion	- Financing - Capacity, TA and technology
Sustaining	
Regulation, revenue	Policy, legislation, and regulation
Institutions, providers	- Institutional arrangements - Capacity, TA and technology
Inclusion	- Planning - Financing