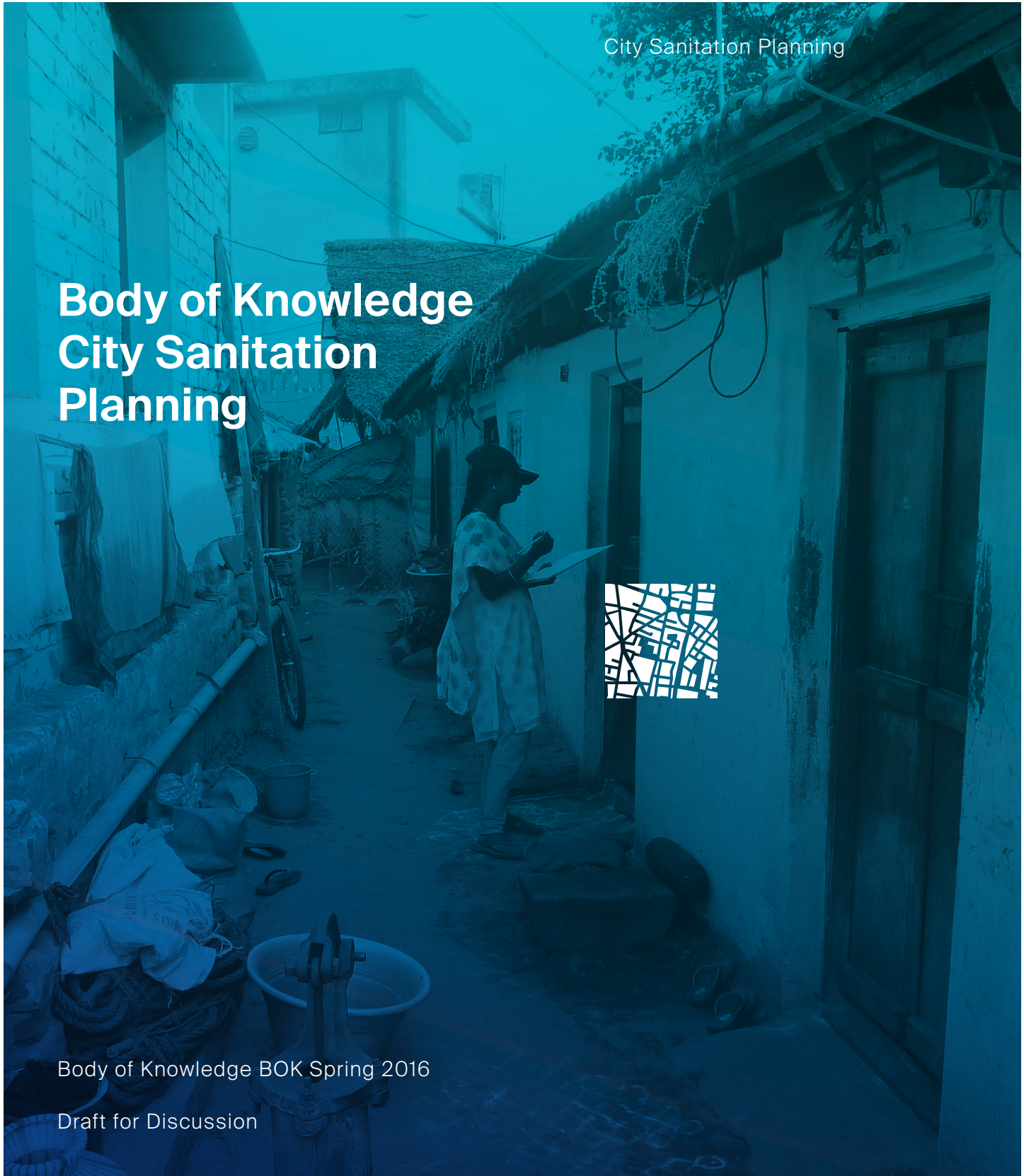


**Body of Knowledge  
City Sanitation  
Planning**



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# 1. The role of City Sanitation Planning at BORDA

## 1.1 CSP: A means of realizing progressive implementation

Traditional patterns of infrastructure development are usually hardware driven through provision of water supply, sewerage networks, flood control, etc.. Experience from developing countries and elsewhere shows that there is a need for a more inclusive and strategic approach to sanitation provision that makes best use of the resources available by combining them into a coordinated whole. Such a strategic approach must aim to take a town or city-wide perspective while ensuring that services are equitable and are institutionally and environmentally sustainable. Therefore, it is necessary for the approach to become an integral part of cross-sectoral planning and development processes that considers a wider range of aspects of sanitation that are not specifically related to infrastructure. These relate to issues of poverty, inequity, land ownership, environmental concerns, or the wider political economy. Such processes require a multi-stakeholder involvement across social, technical, economic, and ecological spheres, which aims to result in a co-management between government, business and communities. A CSP approach acknowledges that many developing countries still require adequate time to adjust administrative processes to such a holistic approach and therefore incorporates a step-wise or phased approach. <sup>1</sup>

<sup>1</sup> IWA Water and Development Congress and Exhibition (18-22 October) 2015 Jordan.

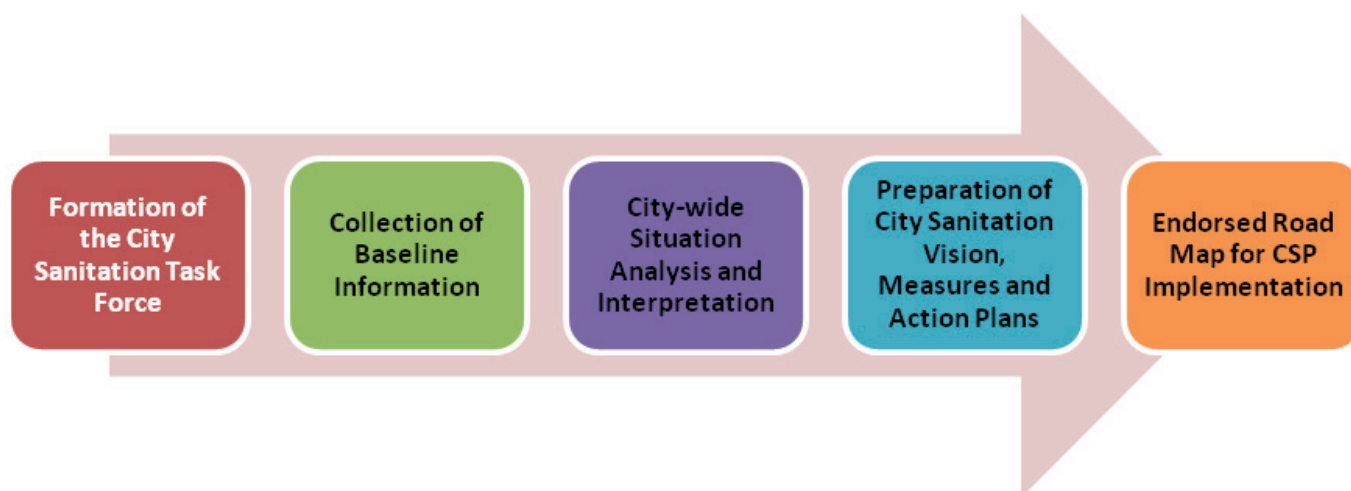
## 1.2 What comes after decentralized sanitation (DEWATS, DESWAM) - Need for a holistic approach

BORDA, in its mission of dissemination of demand oriented Basic-Needs-Services in the fields of decentralized sanitation solutions, started with DEWATS. But after successful demonstration of DEWATS effectiveness, broader issues arose, such as - developing DEWATS as a scalable (not just replicable) sanitation option to meet the total sanitation principles.

The demand arose for DEWATS to be incorporated into the context of wider strategic sanitation plans which map and prioritize areas where decentralized systems fit into the overall city sanitation improvement strategy. In particular CSP's provide important information on;

- areas to be integrated into evolving centralized sewer systems, where these exist or are planned, and within what time frames, and
- areas which are likely to remain reliant on decentralized systems in the long term.<sup>2</sup>

<sup>2</sup> Progressive Implementation' - a way forward to livable and inclusive cities. Towards a holistic approach of used water management as integral part of urban development - Alex Miller. BORDA Regional Director Middle East and Central Asia.



### 1.3 CSP approach

CSP is a strategic planning process for city-wide sanitation sector development. A CSP includes the vision, missions and goals of sanitation development as well as strategies and tools for a stage-wise implementation of sanitation solutions, which are appropriate to the target city and within the human and financial resources available to the municipalities.

A CSP provides a sound data/fact-base for practical decision-making on city sanitation and allows for a prioritisation of action, e.g. for sanitation stress areas, where health risks are highest etc..

- It guides actions to improve city sanitation through concrete implementation plans and targets.
- The CSP development process creates ownership of sanitation development among the actors in sanitation development, including municipal authorities, the private sector, NGOs, and the local population, and explores synergies between their stakes.

- Through the CSP's integrated approach which includes sewerage, solid waste management and storm water management, planning inconsistencies are reduced and negative cross-sectorial impacts mitigated.
- It allows for a systematic, localised interpretation of national and local sanitation policies.

A CSP, however, does not substitute detailed investment planning, technical design studies, operation plans or legal instruments. It rather forms a planning umbrella that supports the coordinated development of the all these elements.

<sup>3</sup> Liza Oberkircher (GIZ) Manual for the development of City Sanitation Plans (CSPs). Page 6 – The benefits of CSPs.

## 1.4 Body of Knowledge (BOK) -

### Rationale, aims, methodology

#### Rationale

- CSP is a recent addition to BORDA's portfolio and there is a need for developing organisational knowledge on the topic through a consolidation of experiences and learnings from CSP projects implemented within the organisation to date. The primary target group is BORDA's country staff and partners.

#### Aims

- Collect experiences gained from BORDA regions' CSP projects,
- Consolidate CSP approaches and lessons learned from different regions.

#### Methodology

The task involved two parts - 1. Collecting the regional CSP experiences and 2. Systematic collection and storage of CSP key documents from all regions.<sup>4</sup>

1. A questionnaire which covers the relevant aspects of CSP was prepared at HQ and sent out to all regions where CSP is a priority topic. After the initial input was received from the regions, several rounds of interviews were conducted to make the regional inputs precise and comparable with one another. The results are compiled in Chapter 2. 'regional experience'.
2. A systematic filing structure (see Annex) was created in Protonet, along with a detailed set of instructions on how to follow the same. The regions were instructed to follow these guidelines and upload the key CSP documents on protonet.

<sup>4</sup> For the purpose of this documents no interpretation or analysis was done regarding the information received from the regions.

## 1.5 Regional experiences collected across 8 thematic areas

The regional CSP experiences have been analyzed and separated into the following 8 thematic areas.

- a Participatory planning and stakeholder mapping
- b Data collection and Sanitation mapping
- c Governance and institutional framework
- d Capacity building and awareness generation
- e Financial sustainability
- f Inclusiveness
- g Technology options
- h Post CSP / Implementation and beyond

This section explains each of these aspects in the context of CSP, as well as what key interest areas this BOK\_CSP seeks to explore, through the questionnaire.

#### a Participatory planning and stakeholder mapping (CSTF – City Sanitation Task Force)

Participatory planning is one of the core guiding forces of a CSP. The participatory aspect is ensured by establishing a sanitation task force (CSTF), a multi-stakeholder platform comprising of representatives from different sectors of society, including local government and agencies responsible for sanitation. The aim of the CSTF is to increase awareness of sanitation issues, among municipal and other government agencies and to include the spectrum of stakeholders involved in the sanitation sector. The key responsibilities of the CSTF include but are not limited to; 1) awareness generation among the target cities citizens; 2) approval and endorsement of the CSP and; 3) supervision of the programme implementation; 4) the coordinated and consensual assignment of institutional responsibilities among the actors involved in sanitation; 5) communication to media and state government about progress.<sup>5</sup>

<sup>5</sup> DUBE, R. (2012): City Sanitation Plans: Experiences and Perspectives of State and ULBs in India. National Workshop on Improving Services in Urban Water Supply and Sanitation New Delhi, July 9-10, 2012. Eschborn: Deutsche Gesellschaft fuer Internationale Zusammenarbeit (GIZ). Accessed 20/04/2016

**b Data collection and Sanitation mapping**

The starting point for developing better sanitation services is the analysis of the current sanitation situation in the city. The collection of baseline information on sanitation and sanitation related services is required for the creation of a solid information base, including improved maps and records. This information base is a requirement for the assessment of existing sanitation practices and the types of infrastructure within the target city. It is often the case in developing cities that data is deficient, unconsolidated or outdated and therefore innovative techniques may be required to obtain the data required in an efficient manner.

**c Governance and institutional framework**

To gain enough political momentum and ensure a conducive environment for its implementation, it is essential that effort is made to develop the CSP in congruence with existing strategies and policies. Furthermore, it is important that CSP strategies are developed in harmony with other on-going planning instruments, both at state and national level, such as City Development Plans and Strategies, City Master Plans, etc. to ensure a more widely accepted, integrated and sustainable city-wide infrastructure plan and avoid costly U-turns.

**d Capacity building and awareness generation**

With respect to sanitation, conventional master planning caters to only the hard infrastructure development such as sewage lines. In contrast, the holistic approach of CSP, takes into account the equal role played by soft measures such as capacity building, behaviour change and awareness generation, which are necessary to achieve long-term goals in improving the sanitation situation of a city.

**e Financial sustainability**

CSP includes strategies to ensure financial sustainability and enhanced service delivery of the existing/planned infrastructure. The financial measures must account for capital

investments along with long-term operation and maintenance costs. The CSP will include a sector-wide financial sustainability model addressing costs and tariffs for service provision, to ensure accountability as well as financial sustainability. Special emphasis has to be given to the financial implications of improving current and future service levels, particularly on how to recover or fund the costs of operation and maintenance.

**f Inclusiveness**

Inclusiveness is an important principal of CSP that ensures that all people and their needs are valued equally, including the most marginalised and assuring that they have a representative voice in the sanitation plan of the city. Sanitation services and infrastructure in low-income settlements are often drastically different from the more developed areas. Often the people living in low-income neighbourhoods are excluded from city development planning often due to the informal nature of the settlement and the lack of land tenure. In general, there is little data on these informal settlements unless national policies or programmes have been developed to specifically target these areas.

**g Intervention options**

The assessment of the sanitation situation of a city, is followed by identification and prioritization of 'sanitation stress' areas and appropriate technical solutions. There should be a set of context-specific parameters for prioritising what interventions are deemed appropriate where.

**h Post CSP / Implementation and beyond**

The CSP should contain a clear implementation plan, a delivery mechanism and a financial plan for each of the strategies proposed. This applies to both hard and soft interventions. The strategies should also include clear a monitoring and evaluation plan for the implementations. A city-wide perspective is needed when planning for operation and maintenance including not only the new infrastructure, but the already existing systems in all the different formal and informal sectors.

## 2. REGIONAL EXPERIENCES

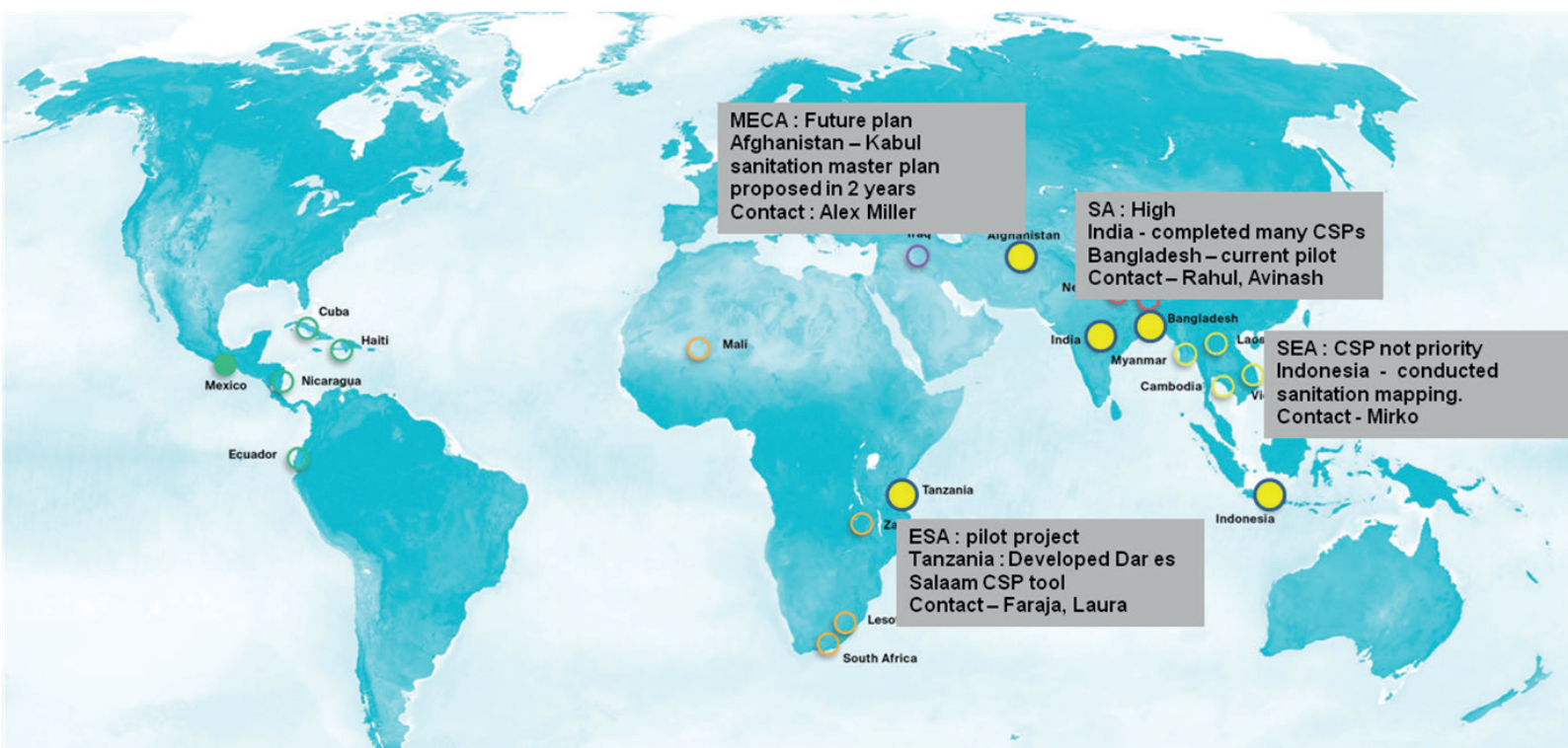
### (Spring 2016)

This is a compilation of CSP key experiences and lessons learnt from different BORDA regions, collected by means of a questionnaire (see Annex 3.1). The answers provided by the regions have been edited to minimize repetition, full responses can be retrieved from protonet (see Annex 3.1).

**Note:** Throughout this section, the phrase ‘sector’ always refers to the following 5 CSP components, i.e. Access to toilets, Wastewater management, Storm water management, Water supply, Solid waste management

#### MAP – showing CSP experience of BORDA regions

Figure 2 Map of BORDA regions outlining CSP experience



## BORDA Regions

## Countries and projects analysed

Region	Country	Projects
East and South Africa (ESA)	Tanzania	Dar es salaam CSP (2012 - 2015) – pilot CSP
Southeast Asia (SEA)	Indonesia	<b>Summarized feedback on</b> Sanitation Mapping (SanMap) for cities of Malang, Medan, Padang, Surabaya (2006 - 2009)
South Asia (SA)	India	<b>Summarized feedback on all</b> CSP's conducted (2007–2015)
	Bangladesh	Sanitation Action Plan and Technology Demonstration for 31 Pourashavas (Municipalities) (2015)
Middle East and Central Asia (MECA) <sup>6</sup>	Afghanistan	Kabul Sanitation Master Plan (proposed pilot CSP project)

<sup>6</sup> In 2016, MECA was changed to WESCA West and Central Asia.



<p><b>A 1</b> Composition of the CSTF <sup>7</sup></p>	<p><b>ESA</b></p>	<p>No formal CSTF formation. Stakeholders:</p> <ul style="list-style-type: none"> <li>- BORDA,</li> <li>- Water and Sewerage Authorities,</li> <li>- Ministry of land, Housing and Human settlements development,</li> <li>- Ministry of Water,</li> <li>- Municipal councils,</li> <li>- Dar es salaam City council,</li> <li>- Others: Local Governments, urban planners and University experts, other NGOs from the sector.</li> </ul>
	<p><b>SEA</b></p>	<p>Main stakeholders:</p> <ul style="list-style-type: none"> <li>- BORDA</li> <li>- USAID -United States Agency for International Development (donor),</li> <li>- ESP (Environmental Service Program),</li> <li>- Local Governments (of the 4 Indonesian cities)</li> <li>- Others: Universities, donors,</li> </ul>
	<p><b>SA India</b></p>	<p>As followed during the first generation of CSPs created post NUSP (2008)<sup>8</sup>:</p> <ul style="list-style-type: none"> <li>- Mayor of the Urban Local Body (ULB), who should head the CSTF.</li> <li>- Municipal Commissioner, who will act as the Convener.</li> <li>- Representatives from divisions and departments of the ULBs directly responsible for sanitation including water supply ,on-site sanitation, sewerage, solid waste, drainage, etc.</li> <li>- Representatives from the civil society</li> <li>- Eminent and influential persons. One appointed as the City Sanitation Ambassador.</li> <li>- Representatives of other prominent institutions in the city (e.g. Cantonment Boards, Government of India or State Government Enterprise campuses, etc).</li> <li>- NGOs working on water and sanitation, urban development and slums, health and environment.</li> <li>- Representatives of unions of 'safai karamcharis', sewerage sanitary workers, recycling agents, kabaris, etc.</li> <li>- Representatives from private sector formally or informally working in the sanitation sector.</li> <li>- Any other significant or interested stakeholders</li> </ul>
	<p><b>SA Bangladesh</b></p>	<p>WATSAN (water and sanitation) committee, Town Level Coordination Committee (TLCC) and the Ward Level Coordination Committee (WLCC), both of which have a strong bearing on the local government's role in implementation and execution of projects, as they are constituted of elected representatives at the town and ward levels.</p>
	<p><b>MECA</b></p>	<p>Consortium consisting of Ministry of Urban Development, BORDA and private sector contractors.</p>

<sup>7</sup> City Sanitation Task Force (CSTF)

<sup>8</sup> In 2008, the Government of India (Gol) sanctioned a policy paper prepared by the Ministry of Urban Development (MoUD) as the National Urban Sanitation Policy (NUSP)

## A

### Participatory Planning and Stakeholder Mapping Projects

	Awareness generation	Data collection support	Planning support	Consensus on plans	Additional tasks	
<b>A 2</b>	The CSTF fulfilled its role by attending meeting, workshops and training which were organized by BORDA.					
Did CSTF fulfill its tasks of: awareness generation, data collection support, planning support, consensus on plans? State the role in each task (fully/ partly/ other)	<b>SEA</b>	Fully	Fully	Fully	Partly	GIS mapping software training for Local Governments
	<b>SA India</b>	Not satisfactory. Mostly done by local NGO, very rarely by local councilors.	The CSTF had the responsibility of conducting inception workshops during which stakeholders are engaged to share available data with the CSTF.	The CSTF provided planning support such as validating findings e.g. existing sanitation requirements of the town.	This was limited because the CSTF has no statutory bearing.	From a legal/institutional responsibility point of view, CSTF had the role of raising awareness on environmental concerns surrounding inadequate sanitation. The extent to which this was done was not evaluated.
	<b>SA Bangladesh</b>	It is yet to be seen how the WATSAN committee can add greater value. The success of sanitation in Bangladesh (the country only has recorded 3% of open defecation in urban areas), at least from an awareness generation point of view, can be attributed to the bottom-most rungs of urban institutions. These were composed of individual stakeholders at the settlement level, organized by local NGOs or under the scope of a nationwide program for sanitation related projects. These local institutions helped communicate the required ideas to increase priority on sanitation, as well as generate greater ownership for sanitation based assets.				

## A

## Participatory Planning and Stakeholder Mapping Projects

<b>A 3</b>  Level of co-operation with CSTF (satisfactory/unsatisfactory). State reasons	<b>ESA</b>	The CSTF fulfilled their role to support the acquisition of necessary information, data and advice to ensure that the project runs smoothly.
	<b>SEA</b>	The CSTF maintained good co-operation to facilitate secondary data collection. <sup>9</sup>
	<b>SA</b>	There was limitations in support from the CSTF due to its non-statutory bearing.
<sup>9</sup> E.g. topography, demography, water supply, health information, sanitation infrastructure, public sanitation facilities etc..		
<b>A 4</b>  Stakeholders beneficial for BORDA	<b>ESA</b>	<ul style="list-style-type: none"> <li>- Water and Sewerage Authorities,</li> <li>- Municipalities,</li> <li>- Local Governments and communities at large,</li> <li>- Other relevant NGOs</li> </ul>
	<b>SA India</b>	<p>Stakeholder mapping needs to be as exhaustive as possible, because for different towns and cities, the levels of engagement and strategic leverage bought in by different stakeholders are unique. As such, all stakeholders must be considered. However, the following stakeholders are specifically important due to the leverage they generate to the planning process:</p> <ul style="list-style-type: none"> <li>- The elected stakeholders (councilors and especially the mayor) of the city are taken into confidence at the start of the CSP preparation and for validating the findings and solutions.</li> <li>- Informal stakeholders who are responsible for community level assets. If any earlier programmes or projects have been undertaken in the specific town in question, it is essential that stakeholders from previous project implementation units are incorporated into the exercise.</li> <li>- Generally, any of the stakeholders engaged in the model of CSTF.</li> </ul>
<b>A 5</b>  Key Findings	<b>SA India</b>	<p>It is essential to incorporate any stakeholders suggested by the implementing partner. With the CSTF model, the elected representatives question the credibility of having non-elected stakeholders of the CSTF to make important decisions on the sanitation related investments for the town. Theoretically, if an investment agenda is decided by the non-elected representatives of the CSTF, and if there is no concurrence with the councilors of a town, decisions will not be accepted. In practice, in most cases - "CSTF is participatory planning on paper, and not necessarily in spirit".</p>
	<b>SA Bangladesh</b>	<p>It is essential to incorporate the stakeholders suggested by the project implementing partner. The implementing partner DPHE (Department of Public Health Engineering) had specifically suggested to incorporate the TLCC<sup>10</sup>, WLCC<sup>11</sup>, WATSAN Committees, and also , proceed with the project only with an inception workshop which is conducted in the presence of the Mayor. This, to a great extent, helped in suggesting solutions which were in close congruence to the requirements of the town.</p>

<sup>10</sup> Town Level Coordination Committee

<sup>11</sup> Ward Level Coordination Committee

## B

## Data collection and Sanitation mapping

<b>B 1</b>  Level of co-operation with the local Government Body/ ULB	<b>ESA</b>	Conducting field surveys were easy because the local government was very co-operative. They ensured that the responsible leaders and the community members were well prepared and aware of the intentions of the organization in their respective areas. In each step, from building awareness of the project, up to the planning process, there was high acceptance of the plan from the local government.
	<b>SA</b>	An inception workshop (ref.a.2) needs to be conducted at the outset to clarify the rationale, objectives and needs of the project. When gathering baseline data, it is crucial to work closely with governmental technical staff like Executive Engineers etc.. Although support is promised by the elected stakeholders and the municipality as a whole, it is the engineering section involved in sanitation, who are the direct point of contact for data collection- based cooperation.
	<b>SA</b>	There was limitations in support from the CSTF due to its non-statutory bearing.
<b>B 2</b>  How was the data collection mobilised in the field - specify local partners involved	<b>ESA</b>	Data collection in the field was mobilized directly by BORDA, no local actors were involved.
	<b>SA India</b>	<p>It is necessary to have urban planning practitioners with substantive experience in the sector and within the region on the team, as their tacit knowledge is invaluable in generating a realistic set of solutions. Additionally, having clear protocols for data collection and analysis should be mandatory and not undervalued. It is important to generate a report for every field visit conducted, that captures all site specific characteristics to the maximum extent possible. From experience, the quality of the field visits will, to a great extent, define the quality of outputs.</p> <p>Depending on the size of the study area, it is often required to outsource the data collection to a professional survey agency. This must be done with caution assuring that the surveyors have enough technical know how an guidance to do the job well.</p>
	<b>SA Bangladesh</b>	It is suggested to partner with local NGOs or agencies to bring local understanding to the project. For instance, the partnership in Bangladesh between BORDA (technical counterpart) and Dushtha Shasthya Kendra ( DSK ) - who brought a lot of local understanding to aid the technical expertise of BORDA.

B 3	Specify sectors* for which (mention kind of data where applicable)	
<b>B 3.1</b>  Extraction of data was difficult. Why?	<b>ESA</b>	Procedures for obtaining secondary data from the responsible utilities were in most cases unclear and complicated. In particular, data relating to income was difficult to obtain.
	<b>SEA</b>	The data from local government was inconsistent with regards to topography (administrative border structure) and sanitation infrastructure, and also highly disjointed
	<b>SA</b>	Survey activities must be designed to collect information for each segment of the value chain (i.e. at the User Interface, Collection, Conveyance, Treatment and Disposal). Redesign questionnaires according to project context. Defining the sample size for a survey is also crucial to the effective situation assessment within a town.  Other data collection methods include conducting: Stakeholder consultations, Focus Group Discussions (FGDs) at the community level, municipality level surveys and rapid reconnaissance surveys. These can be conducted during different stages of the project as required. Sector-specific information must also be collected from local informal service providers, to draw an understanding on the backlogs of the formal service provisions.
<b>B 3.2</b>  Required data was non-existent	<b>ESA</b>	In some instances the required data for implementing CSP were unavailable, making it necessary to conduct field surveys and develop additional innovative strategies for indirectly obtaining data. The solid waste sector was most challenging for data collection due to lack of awareness and serious data deficiency, as it is not a current priority for local government.
	<b>SEA</b>	<ul style="list-style-type: none"> <li>- Health Conditions (spread of waterborne diseases) in local community structures- data in hospitals are not completely recorded and only calculated as average for all patients.</li> <li>- Public Sanitation Facilities (e.g. dumpsites, public toilets, markets, etc.) - most of these places are informal or in cases of dumpsites, also illegal, so there is no formal/legal record of these.</li> </ul>
	<b>SA</b>	Water supply data is particularly difficult in South Asian countries, as non-municipal water supply sources, like taps, constitute a large portion of water supply. Obtaining data on national budgets is often a challenge, this is primarily due to improper accounting parameters like insufficient budgeting heads.
<b>B 3.3</b>  Sources/ authorities were hesitant to give information	<b>ESA</b>	There is no defined path for obtaining data. Sources might have been initially hesitant, but once the objective was explained, and accompanied by a letter of authority (e.g. Approved request for data signed by the Municipal Executive Officer), this issue was overcome.
	<b>SA</b>	This is case specific, as different towns are receptive to varying degrees to the project team's data collection priorities.

## B

## Data collection and Sanitation mapping

<p><b>B 4</b></p> <p>Primary data collection conducted through random sample survey/ detailed household level surveys? (Yes/No)</p>	<p><b>ESA</b></p>	<p>Household level surveys were successfully conducted in some parts of Dar es salaam. They were mainly for mapping the community water schemes and existing water and sanitation situations in the peri-urban and urban areas of Dar es salaam city.</p>
	<p><b>SEA</b></p>	<p>Data collection methods used were:</p> <ul style="list-style-type: none"> <li>- Interviews - for topography, health classification, water supply condition, environmental health condition, sanitation infrastructure, public sanitation facilities, industry and sanitation.</li> <li>- Transect walks - for cross checking data by observation (especially for spatial parameter).</li> </ul> <p>The SanMap project was supported by USAid and ESP. It was not conducted in more cities (other than 4 mentioned above) as there was a lack of data, which had to be collected through household surveys. This requires a large workforce and resources, which were not available.</p>
	<p><b>SA</b></p>	<p>The data that was needed to be collected was;</p> <ul style="list-style-type: none"> <li>- Status quo of sanitation situation,</li> <li>- standards on adequate sanitation,</li> <li>- socio-economic-impacts of inadequate sanitation,</li> <li>- perceived issues regarding sanitation,</li> <li>- basic municipal profile (budget assessment),</li> <li>- organogram and staffing pattern,</li> <li>- sanitation related projects,</li> <li>- list of public sanitation facilities,</li> <li>- town level conveyance and treatment infrastructure,</li> <li>- detailed identification of stress areas,</li> <li>- verification of existing on-site sanitation facilities and support on formulation of strategies and solutions.</li> </ul>
<p><b>B 5</b></p> <p>Did results (of household survey) differ from preliminary field observations/ interviews/ group discussions?</p>	<p><b>ESA</b></p>	<p>Yes, data results were often differing. E.g. income categories as defined by municipal officials sometimes differed from the situation on the ground, as observed during site visits.</p>
	<p><b>SA</b></p>	<p>Preliminary field observations must never be considered as final assessments of the sanitation situation, without a full fledged survey of the town and consultations with the government functionaries (interviews). Household level assessments invariably yield vital information that cannot be captured in preliminary field observations. This must be considered as a minimum protocol for data base collection and assessment.</p>
<p><b>B 6</b></p> <p>Use of urban development plans (e.g. Master plan) for thematic data collection:</p>	<p><b>ESA</b></p>	<p>A draft master plan (2012- 2032) for Dar es salaam is the only current document but it is not yet approved. The current one is from 1976, and was partially used.</p>
	<p><b>SA</b></p>	<p>Information from master plans must be first validated through further consultations, rather than using them as they are. This is for various reasons for example;</p> <ul style="list-style-type: none"> <li>- Sub-standard of physical planning, which is not representative of the actual situation,</li> <li>- The master plan could be outdated.</li> </ul>
	<p><b>MECA</b></p>	<p>Multiple master plans were developed for Kabul by various agencies / donors. Most recent government approved edition was last updated in 2004.</p>

## B

## Data collection and Sanitation mapping

<p><b>B 7</b></p> <p>Redundant data collection (overall/BORDA). If so, indicate kind of data.</p>	<p><b>ESA</b></p>	<p>Collecting data using traditional household surveys can be very time-consuming, labour intensive, and often inaccurate. Conditions on the ground are changing so rapidly, that the slow process of household surveys cannot keep up. Observations from others within the sector in Dar have experienced success with automated data collection technologies, for example; mobile phone apps - where phones are bought specifically for the purpose of data collection, locked so the user cannot misuse the phone, and data is uploaded to a database in real time – avoiding the time-consuming process of entering data from paper-surveys. GPS location tracking is also useful for monitoring accuracy of data collection, as well as setting controlled paths.</p>
	<p><b>SEA</b></p>	<p>There is overlap between secondary data from local government and primary data from interviews and transect walks, due to inconsistent data (ref. b.3) e.g. mapping communal borders, sanitation facilities etc.</p>
	<p><b>SA</b></p>	<p>Redundancy in data collection is governed by the timeline of the project. Across shorter time frames, the project team could depend on secondary sources of information for lesser priority data, while primary data could only be collected for the high priority sectors.</p>
<p><b>B 8</b></p> <p>Average time period for completing baseline data collection and most time-consuming stages</p>	<p><b>ESA</b></p>	<p>Average period for a city of about 60,000 residents is up to 3 months</p>
	<p><b>SA</b></p>	<p>In Bangladesh, 4 months were taken to complete the collection of 3,100 samples across 31 project towns spread across 1,00,000 km<sup>2</sup>. The time required for completing the survey depends on the proximity of the project towns from the project team office. The travel logistics and engagements with the municipality are extremely time consuming and cannot be exactly estimated, except from prior experience in the specific project region.</p> <p>However, as a rule of thumb, it would take 1 week to conduct a survey of 100 households within a small town (population ranging from 40,000 to 200,000). For towns larger than 200,000 the presumption is that greater time (1-2 extra days) might be required to collect representative samples across a larger area. The inception meeting alone would take a day apart from the above. 2-3 days of reconnaissance visits can also be allotted for each town that can be conducted on a need basis.</p>

<p><b>C 1</b></p> <p>Laws/regulations/plans which assist the drafting and implementation of CSP (enforced/not enforced):</p>	<p><b>ESA</b></p>	<p>CSP not yet part of national/state policy because of lack of budget availability.</p>
	<p><b>SEA</b></p>	<p>Since the implementation of the programme, laws and regulations for Sanitation in Indonesia changed fundamentally. Previously there was a lack of institutional responsibility and investment interest in sanitation. During/after the following policies, strategies and initiatives were developed.</p> <ul style="list-style-type: none"> <li>- 2008: National strategy for municipal wastewater management - sanitation</li> <li>- 2008: National spatial planning</li> <li>- 2010: Minimum performance standards for Public Works and Spatial Planning</li> <li>- 2011: National policy of water resource management</li> <li>- 2013: National development policy and strategy of water supply system</li> <li>- 2014: Acceleration program of water and sanitation</li> <li>- 2014: Hygiene and sanitation of drinking water depots</li> </ul> <p>Responsible ministry- Ministry of Public Works and Spatial Planning</p>
	<p><b>SA India</b></p>	<p>National policy:</p> <p>Urban areas – NUSP (National Urban Sanitation Policy, 2008)</p> <p>Rural areas - Nirmal Bharat Abhiyan (which is a program with a set of guidelines for implementation). However, since October 2014, the Nirmal Bharat Abhiyan was relaunched (but also for urban areas) under the Swachh Bharat Abhiyan (Clean India Mission).</p> <p>In addition, there are acts like the Water Act and The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act 2013, all of which have a bearing on the regulations concerning the sector. The various statutes of relevance to sanitation are as follows:</p> <ul style="list-style-type: none"> <li>- Central Government <ul style="list-style-type: none"> <li>· Water (Prevention and Control of Pollution) Act, 1974 (for discharge standards)</li> <li>· Water (Prevention and Control of Pollution) CESS Act, 1977</li> <li>· The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013</li> </ul> </li> <li>- State Government <ul style="list-style-type: none"> <li>· Karnataka Urban Water Supply and Drainage Board Act 1973</li> <li>· State Pollution Control Board (SPCB)</li> <li>· Bangalore Water Supply and Sewerage Act, 1964</li> </ul> </li> <li>- Urban Local Government <ul style="list-style-type: none"> <li>· Karnataka Municipal Corporations Act, 1977</li> <li>· Bangalore Metropolitan Region Development Act 1973</li> <li>· The Slum Areas (Improvement And Clearance) Act, 1956</li> </ul> </li> </ul>
	<p><b>SA Bangladesh</b></p>	<p>Bangladesh National Sanitation Strategy charts out the government's agenda in the sanitation sector. Sanitation projects conceptualized in the CSP should be in alignment with the policy guidelines and National priorities. For instance, in Bangladesh, the government is not aligned to investing in subsidizing toilet construction except for public toilets and community toilets (for economically weaker areas). The government's priorities clearly in the direction of investing in fecal sludge collection, conveyance and treatment facilities in the project towns therefore the project aligned with these priorities.</p>
	<p><b>MECA</b></p>	<p>Afghanistan has a nascent government, therefore laws and policies are still being developed. To date the wastewater policy is not yet published.</p>



## C

## Governance and institutional framework

<p><b>C 2</b></p> <p>Institutional powers of the ULB - support for developing and implementing CSP</p>	<p><b>SEA</b></p>	<ul style="list-style-type: none"> <li>- Regulated by National Laws</li> <li>- Implementation by state law/regulations of government bodies (e.g. Spatial Planning, Public Works, Health)</li> </ul>
	<p><b>SA India</b></p>	<p>Water and sanitation is a state matter, which means the State Government is the main authority for decisions on financial and institutional matters. As such, it's essential to have a partnership with the state sector agency as a project implementing partner rather than the ULB. However, ULBs have to execute the activities and as such ULBs have to be involved while the project team validates the project agenda and investment priorities in association with the state sector agency.</p>
	<p><b>SA Bangladesh</b></p>	<p>Such agendas were set in collaboration with the Local Government Engineering Division (LGED) and the Department of Public Health Engineering (DPHE), while workshops were conducted to validate the priorities set (as the LGED and DPHE are the apex authority to decide on the institutional and financial priorities for the sanitation sector).</p>
<p><b>C 3</b></p> <p>Conflict of interests between the ULB and the state/national government:</p>	<p><b>SA</b></p>	<p>There can be miscommunication in terms of the priorities set between the different tiers of government, but not conflict of interest. Institutional overlapping, at least in India, is a wrongly interpreted phenomenon. The functional space for every institution is established clearly in statutory terms</p>
	<p><b>MECA</b></p>	<p>Yes, many conflicts since ministries have a share at the local utility and mandates are unclear and often overlapping.</p>
<p><b>C 4</b></p> <p>ULB's co-operation in allocating land for CSP proposals</p>	<p><b>SA</b></p>	<p>This is without doubt the most defining element that marks the success of a plan. Land requirements within a town are always the key to see the CSP through to its rightful completion and implementation phase. In most cases, this is dependent on the town's already set priority. The cooperation can however gain impetus based on the involvement of the state level and national level sector agencies</p>
<p><b>C 5</b></p> <p>CSP stage, which experienced most interference/delay due to bureaucracy</p>	<p><b>SA</b></p>	<p>Generally, the data collection stage causes the most delay, which is intensive in terms of logistical considerations. Also, during this phase, there is a lot of engagement with government officials, to set the context of the project and the team's priorities.</p>

## C

## Governance and institutional framework

<p><b>C 6</b></p> <p>Effective/non-effective co-operations with sectoral government institutions</p>	<p><b>SA</b></p>	<p>The primary cooperation should always be with the project implementing agency, followed by partnership with other agencies for specific data/consultation need or for strategic leverage. However, no strategic leverage should compromise the partnership of the project team with the project implementing agency, who should always be the apex point of decision making (and contact) for the project.</p>
<p><b>C 7</b></p> <p>Likelihood to implement changes in institutional framework</p>	<p><b>SA</b></p>	<p>In most cases, such changes are unlikely. Changes to the institutional framework may be recommended in situations where a National sector agency is the project implementing partner, similar to our experience in Bangladesh. In other cases, the solutions in the CSP should be made in alignment with the existing institutional framework.</p>
<p><b>C 8</b></p> <p>Key Findings</p>	<p><b>SA India</b></p>	<p>NUSP set the policy background for developing CSP, but implementation aspects, such as what kind of projects to be executed and sources of funding are not clearly stated. CSP was conceived as a vision document providing guidelines for a city, not necessarily translating to implementation. Sanitation projects conceptualized in the CSP should be in alignment with the policy guidelines at the National Level. CSP is done in consultation with the ULB of the city, but later has to be approved by the state. Likelihood of implementation is reduced when CSP is anchored by a city government and not involving the state. When dealing solely with ULB, ULB is not accountable to higher levels and timelines are not binding. The irony is that projects are proposed at city level, but decision making and budget allotment lies in hands of state and national level. Efforts to include the state government in talks are very necessary.</p>
	<p><b>MECA</b></p>	<p>Afghanistan will have a city sanitation plan in about 2 years from now. Currently anything to do with CSP is in the initial planning stage. Policies and standards are not in place. There is interest from donors to cooperate and support CSP (KfW / Worldbank).</p>

## D

## Capacity building and awareness generation

<b>D 1</b>  Skills currently most lacking/ maximum demand	<b>ESA</b>	GIS training for municipal officers, general understanding surrounding the different sectors*
	<b>SEA</b>	Lack of open communication, strategic orientation, management of network, efficient knowledge management, awareness regarding softwares.
	<b>SA</b>	<ul style="list-style-type: none"> <li>- At the ULB Level: Lack of technical skills, as the engineers have an understanding of the outdated systems within the town, but not of other possible solutions. The soft skills are limited to certain towns, where international agencies have their PIUs, and through which they station their staff for community awareness based purposes.</li> <li>- At the Project Team level: Though technical skills are available in the area of wastewater and fecal sludge management, most CSPs are weak in terms of how the implementation roll out is phased. Moreover, the soft components are often not well aligned to generate the leverage required for successfully implementing a project. For that reason, soft skills would certainly have to take the local sensibility of the population into account. Substantive technical experience is required to design technical solutions that are at the right economies of scale. Technical knowledge in niche technologies like DEWATS, MBRs<sup>12</sup> and ASPs<sup>13</sup> also should be made available to the project team based on the project region. It is essential to build project teams based on the kind of solutions that are implementable.</li> </ul>
	<b>MECA</b>	Lack of skills on all levels. Demand on all levels, in the governmental bodies, utilities but also in the private sector.

<sup>12</sup> Modified Batch Reactor

<sup>13</sup> Activated Sludge Plant

<b>D 2</b>  ULB's willingness to acquire needed skills	<b>ESA</b>	Willingness is high – they just have no or limited resources
	<b>SA</b>	Both in India and Bangladesh, there are government aided programs for training and capacity building wherein the ULBs send their staff for acquiring new technical and soft skills. There is no real issue in this regard, apart from the periodic transfer of staff, due to which, a staff with newly acquired skills may not be able to use it for the municipality.
	<b>MECA</b>	Willingness is there, but financing is a problem due to reliance on foreign funds.
<b>D 3</b>  BORDA's assistance in capacity building	<b>ESA</b>	Dar es Salaam has an ISEE (Integrated Sanitation and Environmental Education) training centre; we also conduct sanitation exhibitions to create more interest in further capacity building.
	<b>SEA</b>	GIS mapping software training was provided.
	<b>SA</b>	In the context of Bangladesh and India particularly, BORDA's technical capacity building inputs are of great value. This is because keeping in view the built form and the settlement pattern at large, decentralised means to manage wastewater and fecal sludge are the more sought after approaches that emerge as viable. And in this regard, BORDA can provide thought leadership towards implementing, planning and improvising treatment infrastructure.
	<b>MECA</b>	Capacity development on all levels is done without problems so far (individual, institutional enabling environment) when it comes to DEWATS alone.

## Regarding awareness generation among the target community regarding CSP formulation:

<b>D 4</b>  Stakeholders who were instrumental for BORDA in awareness generation.(within/ outside CSTF)	<b>ESA</b>	Relevant organisations (E.g. Nipe Fagio) and support of local government authorities, where community leaders play a big part.
	<b>SEA</b>	Lack of open communication, strategic orientation, management of network, efficient knowledge management, awareness regarding softwares.
	<b>SA India</b>	Indian Institute of Youth Welfare
	<b>SA Bangladesh</b>	DSK (Dushtha Shasthya Kendra)
	<b>MECA</b>	GIZ CIM experts, local NGO through workshop events etc., technical cooperation through facilitation of international study tours etc.
<b>D 5</b>  Most effective means of awareness generation (meetings/media/others)	<b>ESA</b>	Community clean-up events, public media promotion campaigns, school WASH programmes and sanitation exhibition.
	<b>SEA</b>	Campaigns for sanitation, mostly from WASH. Advertisements on TV. Neighborhoods and community level – messaging through women and schools.
	<b>SA</b>	Few approaches for effective awareness generation: <ul style="list-style-type: none"> <li>– Participatory group Approach, building of CBOs</li> <li>– Management training of Community Based Organizations (CBOs), through a capacity building exercise also provides the leverage of generating awareness at the community level towards improved sense of hygiene and ownership of sanitation assets.</li> <li>– Participatory approach for Hygiene discussion.</li> <li>– Use of visual tools flash card, games, flip chart, pictorial monitoring card, demonstration.</li> <li>– Special meeting of different stakeholders in the community (local leaders, teachers, students local government and health department staff).</li> <li>– Day observation (World Water Day, Hand Wash Day, Sanitation Month etc.).</li> </ul> Note: The focus could be directed on women, adolescents and children.
	<b>MECA</b>	Seeing is believing. Study tours to existing implemented projects.
<b>D 6</b>  Key Findings	<b>ESA</b>	Community clean-up events, public media promotion campaigns, school WASH programmes and sanitation exhibition.
	<b>SEA</b>	Campaigns for sanitation, mostly from WASH. Advertisements on TV. Neighborhoods and community level – messaging through women and schools.
	<b>SA</b>	The capacity building and awareness generation should be in alignment with the technical implementation planned within any project. For example, if a CSP proposes the construction of a Fecal Sludge Treatment Plant (FSTP), then the related training and capacity building activities must begin alongside the commissioning of FSTP construction activities.

## E

## Financial sustainability

<p><b>E 1</b></p> <p>ULB's transparency in providing data regarding budget allocations for various urban development programs</p>	<p><b>ESA</b></p>	<p>Not at all transparent.</p>
<p><b>E 2</b></p> <p>ULB's attitude towards investment-oriented projects (e.g. sanitation infrastructure), in contrast to investment-light, soft measures (e.g. capacity building, awareness generation)</p>	<p><b>SA</b></p>	<p>Transparency has never been an issue while evaluating municipality budgets.</p>
	<p><b>ESA</b></p>	<p>Sometimes there is resistance from the authorities on setting new priorities, as they have their own planned priorities and limited resources. Although it depends also on the type of project and how well the concept is explained.</p>
	<p><b>SA</b></p>	<p>These assessments need to be reflections of the national policies and government's priorities. The ULB's attitude will generally be in alignment with the National Government's investment priorities. As such, the CSP team should focus on them.</p>
	<p><b>SA India</b></p>	<p>Currently with the Swachh Bharat Abhiyan, the focus is on toilet construction and awareness generation, as in the case of Bangladesh, a few years ago.</p>
<p><b>E 3</b></p> <p>(BORDA) Verification of funds-availability before suggesting a specific solution</p>	<p><b>SA</b></p>	<p>Solutions should be suggested with the mindset of recovering costs for investments proposed at the town level.</p>
<p><b>E 4</b></p> <p>Budgets utilized for CSP and implementation – municipal/ state/national</p>	<p><b>ESA</b></p>	<p>Lack of adequate funds from government.</p>
	<p><b>SA</b></p>	<p>The municipality budget is what is assessed to evaluate the overall municipal income and expenditure and also specifically evaluate the sanitation related income and expenditure. At the state and national levels, if available, the broader investment goals need to be taken into consideration. But at the national and state levels, this is more to do as an activity oriented towards reviewing the policy goals and priorities and not specifically a budget assessment exercise.</p>

<p><b>E 5</b></p> <p>Scope for 'marketing' of CSP for attracting investment</p>	<p><b>ESA</b></p>	<p>Very high potential for marketing of CSP – people currently don't know much about it, but once they learn what it is, they are extremely interested to learn more. This has been evident through the workshops conducted by BORDA and exhibitions participated.</p>
	<p><b>SA</b></p>	<p>The CSP is an investment portfolio prepared for the local government to chart out its investment priorities. Marketing to attract investment should be a separate section of the CSP, wherein approaches to attract investment should be mentioned to guide the local government towards attracting investment (as the next point suggest). Marketing of the CSP itself does not serve this purpose.</p> <p>The bottom line about Sanitation Marketing is that untill recently is an uncharted area, though over the last 5 years there has been a lot of documentation and evaluation on the possible sanitation marketing approaches possible in South Asia and Africa by agencies like the WSP-World Bank, and IIED (See web links (sswm.info) as indicated in xls file - Global CSP Website links_2015 for further information).</p>
	<p><b>SA Bangladesh</b></p>	<p>The team suggested possible approaches to finance the construction of household toilets, and how it could be sourced from the following different sources:</p> <ul style="list-style-type: none"> <li>- Beneficiary's Contribution (B.C.): Within these models also, B.C. could range from 12%<sup>14</sup> to 50% depending on the income segments. As such, the ultra-poor communities that fall in the lowest income segments may have their toilets provided by complete subsidy, while the beneficiary contribution may increase in proportion to household income for other segments.</li> <li>- Municipality's contribution.</li> <li>- Central or State Government's contribution.</li> <li>- NGOs and International Donor Agencies: NGO involvement could be encouraged in the sanitation services sectors; appropriate contract models can be developed to attract their contributions in both the construction of toilets and also towards O&amp;M activities.</li> </ul>

<sup>14</sup> In India's Nirmal Bharat Abhiyan program, 12% was the minimum subsidy share of the government to facilitate the construction of toilets. Hence this is adopted as the minimum rule of thumb.

<p><b>E 6</b></p> <p>Key Findings</p>	<p><b>SA</b></p>	<p>Municipalities in South Asia (see b.3.2) still follow improper accounting procedures, wherein the expenditure streams under sanitation and SWM are not properly captured into the municipal budgets. And the revenue collected from sanitation is also used to pay for non sanitation based activities. The CSP preparing team should reflect on such aspects and undertake a detailed account of incomes and expenditures, in order to have a realistic account of actual sanitation based incomes and expenditures.</p> <p>Sanitation based financing is a key area to contribute for a CSP project team. There are not enough documented approaches on innovative cost recovery approaches. Cost recovery approaches need to take into account a thorough understanding of the existing financial capacity of the municipality.</p> <p>Most of the plans are prepared with the mindset of making available grant based income to the towns rather than loans. For a more sustainable approach, it is essential to think of innovative approaches for recovering costs for investments proposed at the town level.</p>
	<p><b>MECA</b></p>	<p>No public budget available, total reliance on external funds. Financial sustainability not considered at the moment, for single sanitation services yes, depending on future development and business opportunities.</p>

Please indicate: **Regarding informal settlements:**

<b>F 1</b>  Consideration of previous rehabilitation projects	<b>ESA</b>	This must be incorporated into CSP. There is no point re-inventing the wheel. It is also essential to see what worked, what didn't, and if so why it didn't work.
	<b>SEA</b>	The project provided a city-wide sanitation mapping tool including all inhabitants and settlement structures. Prioritizing/Classifying by using a scoring system for the different parameters.
	<b>SA</b>	It is essential to have a thorough spatial account of the informal settlements as follows: <ul style="list-style-type: none"> <li>- Slums with entitlement (provided under the provision of a government scheme; as prevailing in the case of most Indian states).</li> <li>- Slums with no titles but occupying a certain piece of government land. Previous rehabilitation projects could be taken into account to develop an account of sanitation services already available among the informal settlements.</li> </ul>
	<b>MECA</b>	Lack of inclusiveness – master plan does not address informal settlements. All projects address well planned and higher income areas, for water supply and sewage.
<b>F 2</b>  Parameters for prioritizing the settlements	<b>SA</b>	<ul style="list-style-type: none"> <li>- High and medium population density and low income and no/limited road access,</li> <li>- Areas with outbreaks of waterborne disease, high groundwater and flood-prone areas.</li> </ul>
	<b>SA</b>	<ul style="list-style-type: none"> <li>- Income levels of residents (ability to pay for services),</li> <li>- Land ownership (for building toilets),</li> </ul> These 2 must be the only parameters, for entire city, including informal settlements. There must be no special category of urban low income/poor.
<b>F 3</b>  Solutions for land ownership issues	<b>ESA</b>	Negotiations with private land-owners, or in the case of Mlalakua River, military area is providing land. Otherwise, for land from the local government, a land agreement process must be undertaken. Availability of land for infrastructure is a major issue in informal settlements
	<b>SEA</b>	Land allocation for proposals – (Note: Experience derives from implementation of <b>DEWATS not CSP</b> ): <ul style="list-style-type: none"> <li>- DEWATS implementation as part of Sanimas in per-urban settlements.</li> <li>- The local govt. receives a list of applicants (community level). A feasibility study follows which shows the land availability.</li> <li>- For DEWATS in dense urban areas, land availability is arising as a major issue. This has led to an attempt to rescale DEWATS so new households can be connected to an existing DEWATS supported system, by expanding it and not building a new one.</li> </ul>
	<b>SA</b>	High priority is given for land ownership, when deciding intervention areas.
	<b>MECA</b>	Land ownership rights not an issue, as most informal residents have legal ownership of their land.

Please indicate: **Regarding informal settlements:**

<b>F 4</b>  Feasibility for cost recovery, willingness to pay for services	<b>ESA</b>	<p>Willingness is high to pay for what they can afford (even higher willingness than in formal areas), however municipal fee-collection and enforcement is very difficult. Service provider and local community must agree on how much the local community can afford to pay.</p>
	<b>SA</b>	<p>A user willingness survey needs to be conducted for the same. The team may use conjoint analysis methods to learn the specific attributes of sanitation at the user interface that they might be willing to pay for. An improved understanding of the attributes that are valued by household would help sanitation planners and local governments assign realistic user charges for sanitation services availed by households. Thereby timelines for cost recovery may be decided more effectively. User charges also depend on the funding source, if loan or grant (higher for loan).</p>
<b>F 5</b>  Steps taken to address women/childrens' needs (focus on schools)	<b>ESA</b>	<p>School WASH programmes, focusing on hand-washing with soap, and designing and provision of special rooms including incinerators, for girls in schools. Training for women and girls on menstrual hygiene management.</p>
	<b>SA</b>	<p>A sample survey should be conducted within the school segment to understand how the existing situation of sanitation service delivery is in the segment. It is noted – for instance, as in Bangladesh and even in India – that the funds for schools are administered at the state level and once the assets are installed, the operation and maintenance is a concern of school authorities, for which municipalities fall short in servicing. This is both an institutional issue and also there is a need to pilot successful initiatives which can be successful demonstrations for replication in other schools.</p> <p>For women's and children's sanitation needs, awareness campaigns can be focused to map the existing sanitation situation as well as communicate to the particular segments, the need for improved sanitation. Such efforts – if conducted by NGOs and informal organizations – must operate in conjunction with the municipality personnel . Isolated efforts even if successful towards raising awareness, may not gain impetus and financial support if they do not seek support from government functionaries and bodies.</p>



Please indicate: **Regarding informal settlements:**

<p><b>F 6</b></p> <p>Role of women in CSTF and their concrete demands</p>	<p><b>SA India</b></p>	<p>In municipality, there is a reservation of one-third of seats for women. Although women are not mandatory in CSTF, they are always represented. Stakeholders consider their input valuable and often ensure that they are included, in focused group discussions and interviews.</p>
	<p><b>SA Bangladesh</b></p>	<p>Makeup of the formal committees like the Ward Level Coordination Committee (WLCC) and the Town Level Coordination Committee (TLCC):</p> <ul style="list-style-type: none"> <li>- In Bangladesh WLCC consists of 10 members (1 male, 1 female, 8 elite from civil society)</li> <li>- TLCC consists of the Mayor, 9 male councillors, 3 female councillors, 1 LGED engineer, 1 DPHE engineer and other citizens</li> </ul>
<p><b>F 7</b></p> <p>Key Findings</p>	<p><b>SA</b></p>	<p>Informal settlements do not form a 'special category'. They are entitled to the same level of services as the rest of the city. Gender specific aspects come in technical design details such as women's toilets in public toilets etc. and not so important at the policy level. In participatory approach, focused group discussions are conducted for men and women separate, and then combined.</p>

Please indicate: **Regarding informal settlements:**

<p><b>G 1</b></p> <p>National specified code for technical details (e.g. discharge standards), which must be conformed to, before national level tender process.</p>	<p><b>SA</b></p>	<ul style="list-style-type: none"> <li>- Both India and Bangladesh have a National Building Code that stipulates the technical specifications for the on-site sanitation facilities like Septic Tanks.</li> <li>- The bill of quantities for construction of these on site sanitation facilities are mentioned within the Schedule of Rates provided by the Public Works Department (both in India and Bangladesh).</li> <li>- The tendering process are not national but commissioned at the local government (Municipality) level.</li> </ul>
<p><b>G 2</b></p> <p>DEWATS and other applied technical options conforming/not to national standards?</p>	<p><b>SA</b></p>	<p>Environmental standards as stipulated by Ministry of Environment and Forests is:</p> <ul style="list-style-type: none"> <li>- Chemical Oxygen Demand norm is 250 mg/l,</li> <li>- Biological Oxygen Demand norm is 30 mg/l,</li> </ul> <p><b>Note: DEWATS or any treatment technology should conform with these standards.</b></p>

## G 3

## Main decision parameters (e.g. population density) and their weightage:

<b>G 3.1</b>	<b>ESA</b>	<p><b>1)</b> High and medium population density and low income and no/limited road access</p> <p><b>2)</b> Areas with outbreaks of waterborne disease, high groundwater, flood-prone</p>																		
To prioritize interventions among parts of the city (sanitation stress areas)	<b>SEA</b>	<p>purpose of BORDA: intervention areas for decentralized sanitation facilities</p> <p><b>Weightage of parameters:</b></p> <ul style="list-style-type: none"> <li>- Availability of Water <b>0.2</b></li> <li>- Waste Handling <b>0.2</b></li> <li>- Sanitation Facilities <b>0.2</b></li> <li>- Water Puddles <b>0.1</b></li> <li>- Population Density <b>0.1</b></li> <li>- Diseases due to poor Sanitation <b>0.1</b></li> <li>- Family Income Level <b>0.1</b></li> </ul> <p><b>Scoring System</b></p> <p>Classification of mentioned parameter into 5 classes</p> <table border="1" data-bbox="730 853 1294 1061"> <thead> <tr> <th>Class</th> <th>Score</th> <th>Quality of Situation</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>1</td> <td>Worst</td> </tr> <tr> <td>B</td> <td>2</td> <td>...</td> </tr> <tr> <td>C</td> <td>3</td> <td>...</td> </tr> <tr> <td>D</td> <td>4</td> <td>...</td> </tr> <tr> <td>E</td> <td>5</td> <td>Best</td> </tr> </tbody> </table> <p>Final Score = Score(Parameter) * weight (Parameter) = between 1 (poor sanitation) and 5 (good sanitation)</p> <p>With this information local governments are allowed to prioritize intervention areas suited to specific governmental or donor programs (e.g. relating to environment, poverty, tourism, health etc.).</p>	Class	Score	Quality of Situation	A	1	Worst	B	2	...	C	3	...	D	4	...	E	5	Best
Class	Score	Quality of Situation																		
A	1	Worst																		
B	2	...																		
C	3	...																		
D	4	...																		
E	5	Best																		
	<b>SA</b>	<ul style="list-style-type: none"> <li>- The areas with 'no toilets' are always to be considered the 'highest stress areas'. These along with households with access to 'unhygienic toilets'<sup>15</sup> will be a priority in the CSP. Population segments with 'unimproved toilets'<sup>16</sup> are also considered in this category.</li> <li>- The population segments can also be assessed in terms of the existing income levels (with those of the lowest income levels being getting highest priority).</li> </ul>																		

<sup>15</sup> Any toilet, which does not fall under the purview of hygienic, is called unhygienic. Examples are toilets connected to drains instead of pits, toilets with broken parts, rings etc. It includes pit latrines without slabs, hanging latrine or open defecation, and any toilet that is connected to ponds, open canals, ditches and/or is suffering from leakage issues.

<sup>16</sup> 'Unimproved Sanitation' includes flush/pour flush to elsewhere toilets; Pit latrine without slab; bucket; hanging toilet or hanging latrine; or no facilities or bush or field: includes defecation in the bush or field or ditch; excreta deposited on the ground and covered with a layer of earth (cat method); excreta wrapped and thrown into garbage; and defecation into surface water (drainage channel, beach, river, stream or sea) ([http://www.who.int/water\\_sanitation\\_health/monitoring/oms\\_brochure\\_core\\_questionsfinal24608.pdf](http://www.who.int/water_sanitation_health/monitoring/oms_brochure_core_questionsfinal24608.pdf)).

<p><b>G 3.2</b></p> <p>To prioritize between: Centralized/decentralized systems</p>	<p><b>ESA</b></p>	<p>Mapping the distance from existing network, and distance from planned expansions of future networks.</p>
	<p><b>SA</b></p>	<p>This has to be case specific and based on the coverage of networked services. If a core area of a town is already networked and connected to a centralized treatment plant, then clusters in the peri-urban limits may either be connected to the centralized network or may have its own decentralized treatment facility. It would be cheaper to have a decentralized treatment facility in case there is an adequate gradient and no need to pump wastewater. However, in case of no gradient, it may also be cheaper to consider connection to the centralized treatment facility. But this cannot be generalized and must be checked case specific.</p> <p>If there are a lot of septic tanks, pits and twin pits, with no service coverage, it would make sense to have a fecal sludge treatment facility that may be centralized, and consider the possibility of cluster level DEWATS for blackwater treatment. But again, these have to be looked at case specific and based on topography, existing level of services available and the municipality's financial capacity to invest in a treatment facility.</p>
<p><b>G 3.3</b></p> <p>On-site/off-site systems</p>	<p><b>ESA</b></p>	<p>This is a question concerning the economies of scale. If you can achieve the economies of scale with an off- site system, then it should be adopted. But in South Asia, on- site facilities largely are prevalent.</p>
<p><b>G 4</b></p> <p>Consideration of cross-sectoral* impacts while addressing a particular sector*. (eg. Access to toilets and wastewater management)</p>	<p><b>ESA</b></p>	<ol style="list-style-type: none"> <li>1) Water supply authorities must be educated on the need for wastewater treatment to be implemented in conjunction with water-supply systems. This is not properly understood, hence the wastewater problem in DSM<sup>17</sup></li> <li>2) Without solid waste management, urban stormwater drains become blocked with waste and cause flooding. Therefore, these two aspects must be tackled.</li> <li>3) In schools, WASH programmes and awareness raising cannot be implemented before users have access to toilets, water supply and wastewater management.</li> </ol>
	<p><b>SEA</b></p>	<p>Cross-sectoral impacts are crucial for access to toilets, wastewater management, solid waste management. SEA prioritizes interventions in wastewater management and access to toilets and currently stormwater as it's a major issue.</p>
	<p><b>SA</b></p>	<p>The following 4 stages of the value chain certainly are cross cutting as one component will create issues across the other stages of the value chain: Access to toilet, collection and conveyance – and tie-in with treatment alternatives, treatment and re-use, fecal sludge management.</p> <p>Additionally, the following four areas are to be looked at as cross cutting themes that are to be addressed while sanitation is being facilitated: <b>1)</b> health and <b>2)</b> environment improvement, <b>3)</b> Institutional and governance capacity of local governments , <b>4)</b> capacity building issues concerning local governments.</p>
	<p><b>MECA</b></p>	<p>Currently the sector is only focused on water supply - high demand for an integrated approach.</p>

<p><b>G 5</b></p> <p>Level of acceptance for solutions incl. DEWATS technology</p>	<p><b>ESA</b></p>	<p>Still quite low, but this is mainly due to a lack of knowledge about the technology. Once people are informed and educated on how the systems work - with an emphasis on the financial benefits, and convenience in areas without other alternatives - then level of acceptance significantly rises.</p>
	<p><b>SA</b></p>	<p>This is dependent on topography, existing level of networked services available, municipality's financial capacity to invest in the technology. If on-site facilities in the town are more, then the scalability of DEWATS as a technology can be more. Whether it is selected by the municipality depends on how the technology is marketed to them.</p>
	<p><b>MECA</b></p>	<p>Very well accepted so far, accepted by municipalities as an appropriate intermediate solution.</p>

H 1		
Please indicate: Average time duration and reasons for variations among cities:		
H 1.1 Regarding the completion of CSP	ESA	The methodology for CSP can be applied to all cities, however population size would determine the amount of time to needed to produce a thorough and accurate CSP.
	SA	<ul style="list-style-type: none"> <li>- This is dependent on the degree of detail that the client, project implementing agency wishes to bring to the effort.</li> <li>- The Kolhapur CSP prepared by BORDA took two years and was done in great detail, and set the standard for new CSPs to be prepared in India. However, in Bangladesh across a 10 month period, 31 town CSPs were achieved in a programmatic approach rather than a standalone CSP approach.</li> <li>- We would consider it ideal that for a 6-7 month phase, a 4-5 standalone town CSPs may be achieved.</li> </ul>
H 1.2 Between completion of a CSP and its implementation (feasibility study/preparation of DPR)	ESA	Population size and area of city. CSP only takes you so far before field and feasibility assessments are required. In larger cities, this final step would naturally take more time. Local knowledge is also essential and can significantly speed up the process.
	SA	<ul style="list-style-type: none"> <li>- Dependent on the government body's enthusiasm and sense of urgency based on the prevailing stage of urban reforms. In some cases, as in Bangladesh, the funding agency's (which was ADB) sense of urgency could also provide impetus to the preparation of DPR.</li> <li>- Ideally implementation should be an immediate stage post preparation of CSP.</li> </ul>
H 2		
Role of BORDA/partner organizations during implementation:		
H 2.1 Stage of involvement (O&M, M&E)	SA	BORDA has substantive experience in O&M and M&E of isolated DEWATS units that have been commissioned to BORDA to be built, but not units implemented under the scope of a CSP. The CSP preparing agency generally are not tendered to do implementation (at least by ADB or World Bank) due to conflict of interest.
H 2.2 Effectiveness of involvement (results)	SA	BORDA's involvement will improve the quality and effectiveness of O&M, as know-how in this regard among other agencies is limited.
H 3 Feasibility tests conducted prior to preparation of detailed plans?	SA	Feasibility studies are generally conducted only when the team is commissioned to conduct an exercise due to the costs and resources required. However, feasibility studies would definitely be useful in advance.
H 4 Proposed projects regarding technologies/policies/awareness/capacity building – which have been most frequently/rarely realized? Reasons.	ESA	Municipalities have own priorities, different from CSP proposals, e.g. priority given to water supply in DES.
	SA	Priority while framing proposals – <ol style="list-style-type: none"> <li>1. Technology,</li> <li>2. Related capacity building,</li> <li>3. Related policy proposals,</li> <li>4. Not directly involved with awareness generation, but indirectly support such bodies.</li> </ol>

<p><b>H 5</b></p> <p>Requirement/relevance of CSTF in post-CSP activities</p>	<p><b>SA</b></p>	<p>The CSP is a working document which needs to be revisited and revised based on the growing priorities of a town. In this regard the CSTF is an important decision making unit to revisit priorities in alignment with the municipality's changing sanitation agendas and thereafter include into the CSP.</p> <p>CSPs post submissions were never really anchored by the CSTF for implementation. And the priorities set by the elected stakeholders in the CSPs at the city level would have greater precedence for implementation than CSTF members.</p>
<p><b>H 6</b></p> <p>Attempts to measure effectiveness of an implemented CSP (e.g. Feedback from users, reduced incidence of water-borne diseases etc.).</p>	<p><b>SA</b></p>	<p>A CSP is effective to the extent that the investment priorities mentioned therein are achieved and on a long term basis improved upon. This has not been the case in India, where the CSP has guided minimal investments from the government. Many sectorial investments have also been done by governments without any alignment with the CSP.</p>
<p><b>H 7</b></p> <p>ULB's/general acceptance of CSP as a planning instrument.</p>	<p><b>ESA</b></p>	<p>CSP was accepted by authorities, but chances of implementation are not high due to lack of available funding.</p>
	<p><b>SA</b></p>	<p>Municipalities already have their sanitation level priorities largely ingrained in terms of expenditure into drains and large centralized treatment plants.</p> <p>Therefore, the general acceptance has been low in the first generation of urban reforms in India between 2005 and 2012 in India. However, this looks to change for the better with the Swachh Bharat Abhiyan. We need to wait and see ...</p>
<p><b>H 8</b></p> <p>The role BORDA should/should not play during CSP activities.</p>	<p><b>ESA</b></p>	<p>BORDA should act as an advisor on "which sanitation solutions" need to go "where". However, BORDA should not act as a sole body for implementation of these activities. The advisory position should identify relevant service providers who then undertake the process of implementation. In the case of DEWATS, BORDA needs to focus on training people in order to increase the number of experts familiar with these technologies. Currently the capacity of BORDA to solely implement DEWATS is unable to keep up with the demand of a city with a population over 5 million.</p>
	<p><b>SA</b></p>	<p>BORDA should support in the following ways;</p> <ol style="list-style-type: none"> <li>1. Policy level advocacy with other government agencies and think tanks,</li> <li>2. Action Research through pilot projects (Very Important),</li> <li>3. CSP Preparation,</li> <li>4. CSP Implementation: Management design and supervision of wastewater treatment plants,</li> <li>5. Training and Capacity Building at the municipality level,</li> <li>6. Awareness Generation at the community level (possible in the long run). It would help to understand the sector better, if BORDA is also involved at these levels.</li> </ol>

<p><b>H 9</b></p> <p>Strengths and weaknesses of BORDA in managing the current CSP activities</p>	<p><b>ESA</b></p>	<p>BORDA team for Dar es Salaam CSP lacked an Urban Planner, the post was created later. Emphasis needs to be on training and increasing the local bank of knowledge surrounding these technologies. We cannot do it all ourselves!</p>
	<p><b>SA</b></p>	<p><b>BORDA's strengths:</b></p> <ul style="list-style-type: none"> <li>- In-house understanding of treatment technologies as well as technical understanding on wastewater and fecal sludge. Though, regarding fecal sludge, there is much more scope for improved knowledge. In the former, we need to improve understanding on electro mechanical systems.</li> <li>- Experience in pilot implementations of treatment plants</li> <li>- Ground level experience in completing CSP projects</li> </ul> <p><b>BORDA's weaknesses:</b></p> <ul style="list-style-type: none"> <li>- Project management and delivery standards have scope for improvement,</li> <li>- Integrating the expertise across different core areas like project management, and the engineering and scientific knowledge may be improved,</li> <li>- Documentation and marketing – post project – are certainly weak areas, though there have been substantive works that have impacted the sector greatly,</li> <li>- Aligning with other technical and non technical sector based agencies (for BORDA's advantage and strategic leverage in the sector), need to be improved.</li> </ul>
<p><b>H 10</b></p> <p>Who could become a potential partner for a CSP community of practice</p>	<p><b>SA India</b></p>	<p>Some agencies of relevance in Bangalore and India, where we can work in a collaborated manner:</p> <p>Indian Institute of Human Settlements (Bangalore), CEPT University, PAS (Performance Assessment Systems) group from CEPT, Administrative Staff College of India, Hyderabad, Centre for Science, Technology and Policy (Bangalore), Centre for Policy and Research (Delhi), School of Planning and Architecture (Delhi), IIT (Chennai), NLSIU (Bangalore)</p>
<p><b>H 11</b></p> <p>Key Findings</p>	<p><b>ESA</b></p>	<p>DES was the pilot CSP for ESA. Based on these experiences, a CSP manual is being prepared for future projects, as well as an online mapping tool for data collection and sharing. Funding is an issue, DES CSP was funded by EU.</p>
	<p><b>SEA</b></p>	<p>BORDA Indonesia is planning to focus on Sanitation Mapping for water resource protection since this is also part of the BORDA MoU with the Ministry of Public Works (which is the framework and the basis for BORDA permit in Indonesia). Specific capacities on local government level in terms of human resources and finance for CSP were limited.</p> <p>After the omission of the main project donor (USAid), financial resources at local government level for CSP were limited. Besides, specific staff capacities on government level were insufficient. There was also a limited interest on local government level due to the lack of awareness of the importance of the topic. Furthermore, at the same time, the CBS approach in Indonesia was replicated into a National Program (SANIMAS) which led to a nationwide demand of DEWATS CBS. BORDA and partner's capacities were needed to support SANIMAS program implementation.</p>



# 3. Annex

In order to collect the key CSP documents from the regions, a folder structure was created in protonet for systematic collection and storage. (see Fig.3)

KM\_CSP folder in protonet contains the information collected from the regions for creating BOK\_CSP, as well as the key CSP documents collected from the regions. The folder contains -

## 1. Documents

- a Guidelines for uploading key documents - is a set of instructions, located in the Archive folder which guides the regions in the compilation of the key CSP documents. (see 3.2)
- b Global CSP experts\_2015 (see 3.2 part B)
- c Global CSP Website links\_2015 (see 3.2 part B)
- d Global List of CSPs\_2015 (see 3.2 part B)
- e BOK\_CSP

## 2. Archive

- a Questionnaire - which comprises questions based on the 8 thematic areas of CSP (see 1.5). This was sent out to all regions to collect the regional key CSP learnings.
- b The responses to the questionnaire from the regions of SA, SEA, ESA and MECA
- c Interviews conducted with regional CSP experts for additional input on clarifications.

## 3. KM\_CSP Regional key documents

See 3.2 part A

Figure 3 illustrates the sub-folder system in the KM\_CSP Regional key documents folder, with the example of region ESA. The same system of sub-folders follows for each region. This folder system will be modified as more information is shared and knowledge management develops within the organisation.

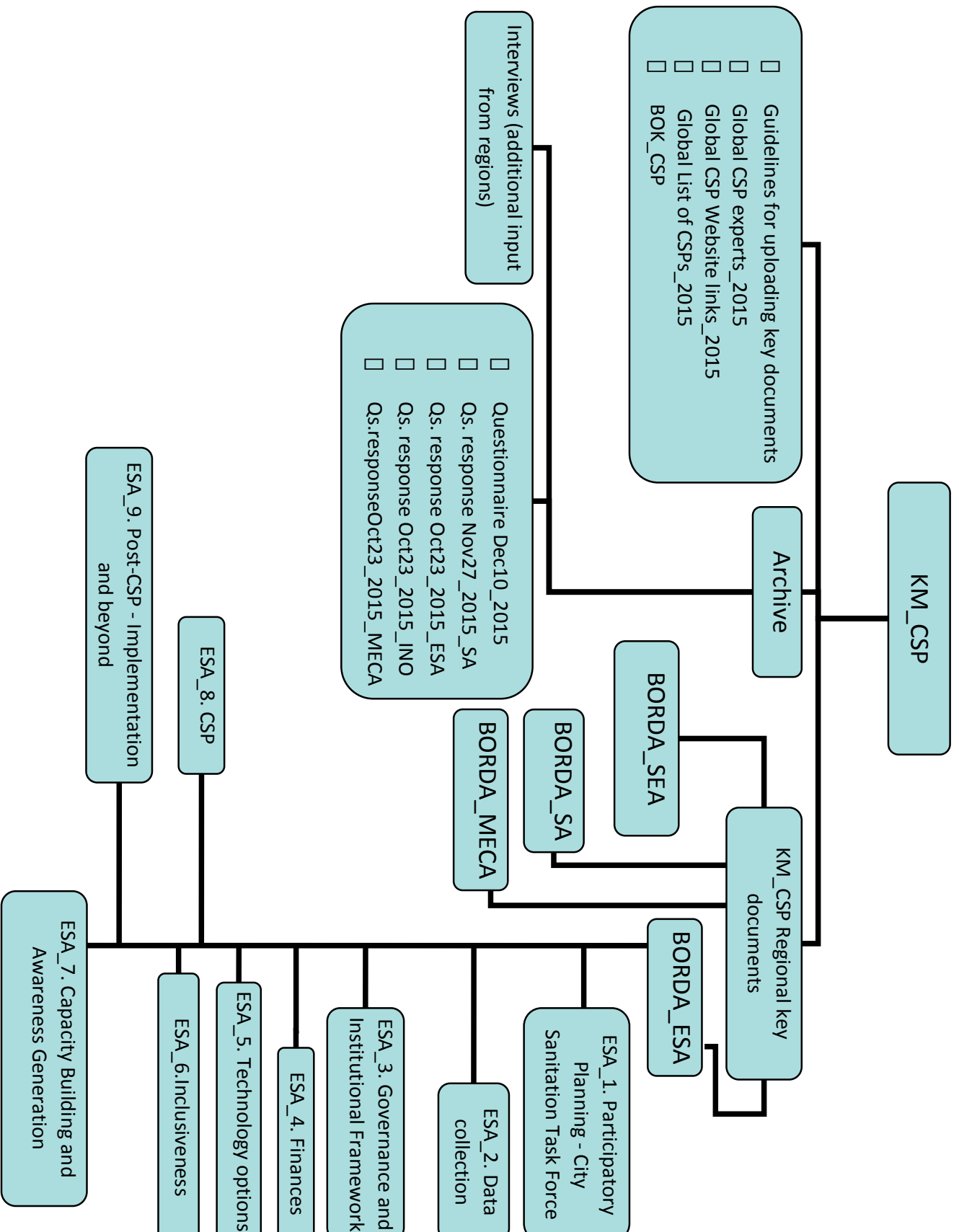
## 3.2 Guidelines for uploading key documents

KM\_CSP Regional files: Instructions for uploading key documents on Protonet

We would like to create a centralized storage platform for CSP **key information** from different BORDA regions. Please share files from CSPs (completed/partial) conducted in co-operation with BORDA in your region. **This information is updated annually.**

1. Share key information such as proposals, planning documents (shapefiles), workshops, seminars, presentations, reports, Survey results, photographs (selected few, only relevant photos). Please do not share information which has another purpose (e.g. BMZ quarterly reports etc.)
2. Archive files according to the protonet structure (sub-folders see below)
3. Any document type can be uploaded
4. File naming format:
  - **country code\_city code\_year\_description**
  - E.g. IND\_SHIM\_2015\_financialstudy
  - Country code - Assign 3 letter country code, as given in the country list at the end of this document.
  - City code - use first 4 letters of city/town for which CSP was done
  - Description - short description/keywords of content of document.
5. Upload only final versions of documents, unless it has not yet been finalized.

Figure 3 Protonet - KM\_CSP folder structure



## A Sub-folders

Please categorize your documents as you see fit. Some suggestions for contents of documents are mentioned, respectively. Please upload only documents relevant to activities in your region i.e. not general literature. It is not necessary that all sub-folders are filled.

- **Participatory Planning/ City Sanitation**
    - Task Force
    - Composition and Responsibilities of CSTF
    - Evaluation of CSTF role/effectiveness
  - **Data collection**
    - Methodology of data collection (templates, questionnaires)
    - Survey results
    - Maps (key documents)
  - **Governance and Institutional Framework**
    - Government policies (national, state, municipal) regarding urban sanitation/CSP
    - History of urban sanitation policy in the country
    - Policy related to de-centralization of sanitation services
- Institutional mapping/regulatory framework for urban sanitation (national to municipal level)
- **Finances**
    - Funding sources
    - Financial sustainability/Revenue potential of proposals/Cost recovery options
    - O&M and other service delivery responsibilities
  - **Technology options**
    - Decision criteria - process
    - Feasibility studies
    - Role of Dewats within CSP.
    - Technology comparisons

**Note:** Technical details not required (no single system drawings)

- **Inclusiveness** (relating to urban poor, women and children)  
National/state/municipal policies related to provision of sanitation services to urban poor

- Community participation events involving these target groups.
- Press releases, documents, presentations
- CSP proposals specifically targeted at informal settlements/women/children
- **Capacity Building and Awareness Generation**
  - Capacity building for CSP skills - workshops, training material etc.
  - Awareness generation - campaigns, posters, presentations
- **CSP**  
Final reports/ presentations
- **Post-CSP / Implementation and beyond**
  - Implemented projects based on CSP proposals (key documents)
  - Feasibility tests
  - CSP Marketing strategies
  - Information on overall demand (state/country level)

## B CSP Regional Experts, Regional website links and List of CSPs

There are also 3 excel sheets. All sheets are open for editing, please add more entries, when needed. **All sheets will be updated annually:**

- **Regional Website Links**  
A platform for sharing the websites/links relevant in your region for CSP. These websites can be any verified source - governmental, academic, your regional office website etc.
- **CSP Regional experts**  
To create a strong community of practice which could help for future CSP projects. Experts can be from technical, institutional, academic, financial and any other fields relevant to CSP. Please include experts among in-house BORDA staff also. Please review all CSP activities so far and provide a comprehensive and updated list.
- **List of CSPs**  
In addition to the information you provide in the respective sub-folders (see content), this list provides a brief overview on key-facts of a single CSP where BORDA has been/ is involved.

Country	Code
Afghanistan	A F G
Burkina Faso	B F A
Bangladesh	B G D
Bhutan	B T N
Cuba	C U B
Ecuador	E C U
Haiti	H T I
Indonesia	I D N
India	I N D
Iran, Islamic Republic of	I R N
Iraq	I R Q
Nepal	N P L
Philippines	P H L
Thailand	T H A
Jordan	J O R
Kenya	K E N
Cambodia	K H M
Kurdistan Region of Iraq	K R I
People's Democratic Republic	L A O
Lebanon	L B N
Lesotho	L S O
Mexico	M E X
Mali	M L I
Myanmar	M M R
Nicaragua	N I C
Tanzania, United Republic of	T Z A
Viet Nam	V N M
South Africa	Z A F
Zambia	Z M B