Dgroup discussion
"Urban Sanitation – Upgrading and emptying of on-site facilities"

Contents

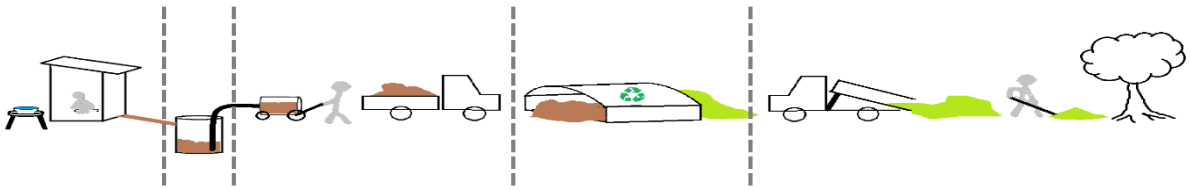
Introduction

This is the summary of an email discussion held on the Urban Sanitation and Hygiene Dgroups platform from the Tuesday 11th of November till Friday 5th of December 2014. The discussion was moderated by SNV knowledge network, and involves 202 member from 36 different countries (mostly Asia and Africa). Twenty seven contributions were written over the course of the discussion. The discussion aims to bring together examples and perspectives of practitioners from the field with perspectives from people working at international level. It also aims to reflect together on new ideas and best practices in sanitation and hygiene. Needless to say, it is not intended as a conclusive document on the subject.

This is the third Dgroup discussion on urban sanitation and hygiene. The first discussed "Urban sanitation planning and finance" and the second discussion was about "Financing for urban sanitation infrastructure investment". The discussions are linked to the learning component of the urban Sustainable Sanitation and Hygiene for All programme in Nepal, Bhutan, Bangladesh and Indonesia. This summary will be an input for the regional workshop on "Urban Sanitation – Upgrading and emptying of on-site facilities" in Bangladesh in December 2014.

Topic 1: The upgrading debate: does containment really happen?

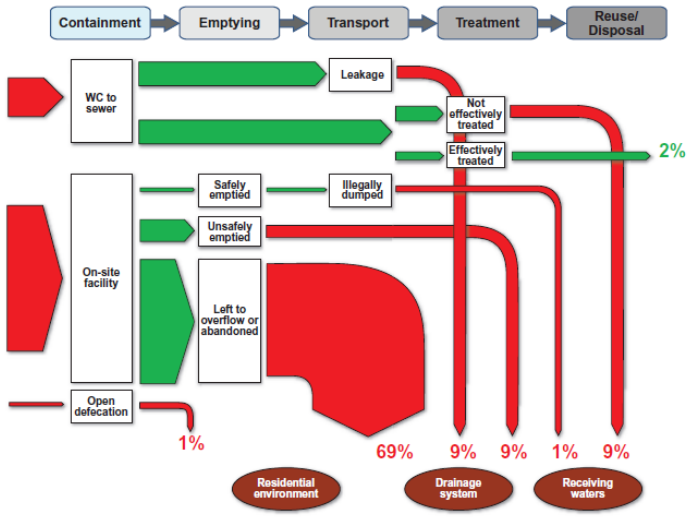
Let's take a moment of reflection. The reason that we are all working in this sector is to help improve environment health, more specifically to "separate human waste from human contact". Lately, more and more people are getting excited about faecal sludge management (FSM), because we're finally recognising that the vast majority of citizens in our cities and towns in the world are relying on on-site facilities. It is part of the SDGs! This is impressive, having FSM on the global agenda is a great step forward in addressing environmental health.



However, there's one thing that worries greatly. In the sanitation value chain- see below- we seem to focus on emptying, collection/transport, treatment, reuse/ disposal. As long as people have some form of toilet, we seem to take containment for granted.

Even in WSP's "shit flows diagram" the arrow that comes out of on-site facilities is green.

Figure 2: Fecal Waste Flows in Dhaka, Bangladesh



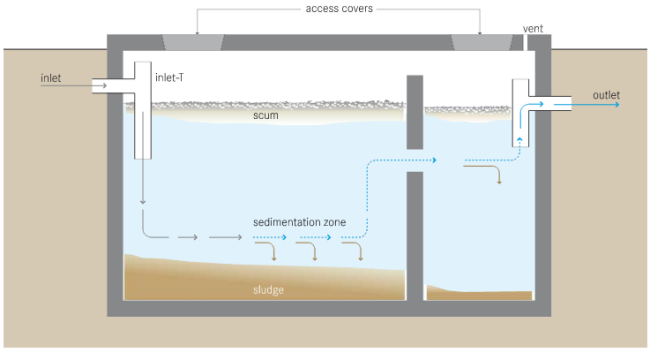
Are we fooling ourselves here?

In most countries there are either:

a. No standards for on-site urban sanitation facilities
b. The standards are not used because they are unknown at field level or unrealistic
c. Standards are not enforced

We see huge variations in designs of what is called "a septic tank". Textbook says it is a double chamber, sealed tank with the outlet slightly lower than the inlet, and a soak bed (not shown here). This figure is from the EAWAG compendium, see http://ecompendium.sswm.info/sanitation-technologies/septic-tank.

Septic Tank



I cannot count the number of facilities called "septic tank" that I've seen which do not comply with the above.

There are no 2 chambers!
It's open at the bottom!
Outlet pipes are way down, so that that tank doesn't fill up!
There's definitely no soak bed!
And then the variations in pits, including unlined pits in densely populated areas with high ground water tables.
Or toilets that connect almost directly to the drains.

No, this is not a poem.

If we are truly committed to environmental health, upgrading of onsite facilities has to be on our agenda as much as emptying and treatment. We need to give attention and start thinking more about how bring all these facilities up to a minimal standard, how do we bring users into compliance, how do we technically find the best ways to improve on-site facilities.

1. Should upgrading of on-site facilities be on our agenda as much as emptying and treatment?

Practically everybody agrees that containment is a challenging issue which receives too little attention. Aftab Opel working with SNV Laos writes that this is just another form of open defecation. Hassan Khondoker Mahbub from KUET University and Rajeev Munankami from SNV Bangladesh also point to the fact that the magnitude of contamination of our living environment due to this issue is huge. Fany Wedahuditama from the Ministry on National Development Planning in Indonesia and Kapil Gyawali from SNV Nepal are asking what we are doing in promoting inadequate on-site facilities in urban areas on an ad-hoc basis. They feel this is an issue that might explode in future. Giacomo Galli from IRC in the Netherlands introduces the concept of "skeptic tanks", which is summarised by Henk Veerdig from SNV Bhutan as malfunctioning septic tanks not meeting minimum standards. Besides these skeptic tanks, the vast majority of on-site facilities are of course pits.

The question is why the containment issue is hardly part of the ongoing urban sanitation discussion. In the WSP diagramme sent with the introduction to this topic, the effluent from on-site facilities is considered "green" (=good/safe) per definition. We're not talking enough about this, says Sahidul Islam from SNV Bangladesh, because the problem is mostly invisible. However, Rajeev and Giacomo feel that it's also convenient for most stakeholders to make the containment issue "Somebody Else's Problem" (SEP), even though, I would add, we all know this SEP might be our children.

While most contributors feel that that it is a priority to include containment in our urban sanitation agenda, there are different perspectives. George Mikhael from WSUP Ghana says rightly: "I don't think one aspect of the sanitation chain should supersede the others. All aspects are equally important to ensure public health." Maria Carreiro from SNV Indonesia asks whether we are framing the issue in the wrong way. Instead of talking about other parts of the sanitation value chain, shouldn't our goal be to eliminate all forms of open defecation, including from deficient containment. Hassan points out that it is not possible to ask people to improve containment if there are no emptying services.

Another challenge is feasibility, Kumi Abeysuriya from ISF Sydney wonders how difficult it will be to do something about containment in practice. Henk says that ideally one would not work on treatment options while still trying to figure out how to upgrade onsite facilities and improving emptying services, however, in practice it can be OK in some cases. It's important to understand how bad the on-site facilities are in the specific context.

My personal summary based on your comments would be: "Yes, improving containment hugely important, together with the rest of the sanitation value chain, but we really have very little tested solutions to address this.

2. So how did we end up in this situation?

First of all, as Henk and several others say, it's important to remember that the vast majority of on-site facilities were built without support, guidance or supervision from authorities. Aftab further mentions that there is both a lack of enforcement as well as a lack of knowledge. As Fany nicely puts it, the situation is mixed both from the perspective of the household and from the perspective of the local government. Talking about households, there is a group which is unaware, there is a group which is aware, but does not act and then there is a group of households that do want to do the right thing, but trust the contractor.

Another issue is that in many countries there is still no clear legal basis for enforcement of standards, as Kapil illustrates for Nepal. In other countries, policies, regulations and standards exist but there is fragmentation, as

explained by Alfred Lambertus from Indonesia or there is no clear institutional house for enforcement as explained by Rajeev.

Furthermore, Giacomo, Sahidul and Fany explain, enforcement of standards for on-site facilities is politically sensitive. Giacomo calls it a vicious cycle; "If municipalities really start to effectively regulate and enforce policy on these 'sceptic' tanks, the public outrage would be too great."

There are also technical challenges, especially in areas with high ground water tables. We cannot ask households to do the impossible.

There are thus many plausible reasons and motivations for ignoring the issue.

3. How do we bring users/ house owners into compliance?

Getting owners building new construction into compliance with minimal standards seems a difficult but achievable goal to most. Specific suggestions from Henk are to:

- Ensure quality approval of sanitation components in building plans.
- Ensure through on-site supervision that construction takes place in accordance with plan.
- Insist on rebuilding if construction does not meet plan and minimal standard, supported by a fine system.
- Ensure effective enforcement of the fine system.

George adds that enforcement does not need to be a blunt tool used on everyone equally. There is a significant part of the population that can afford a safe facility and should be penalized if the facility is not appropriately constructed. There are many however that cannot afford a safe facility, and should probably not be charged with fines. Instead, enforcement through support and mediation should be provided (a softer face to enforcement) by improving access to information and finance. The latter for example through loans.

An alternative strategy for compliance with standards mentioned by George is to promote self-regulation of the private sector, as quality is linked to branding and low-quality can be traced back to the seller. He gives the example of Duraplast in Ghana who provides free training for artisans on their pre-fabricated septic tank.

Heiko Gebauer from EAWAG in Switzerland adds that better containment probably will be more costly from the perspective of masons. It may require more time for non-core activities, which we tend to overlook. Also Hilda Muthesi from SNV Kenya talks from a business perspective, but pointing out that all 3 key stakeholders, government, service providers and households, need to see the added value.

Contrary to new to build septic tanks, getting owners of existing on-site facilities into compliance is a completely different ball game. It seems that the general consensus is that this is almost impossible. As Kumi puts it: "Given the situation described about the lack of standards, will "upgrading" of huge numbers of individually owned systems be even more ad hoc than the initial installation?" Henk adds to this: "Most building owners will most probably say; 'If the municipality wants me to upgrade my on-site facilities, they should financially compensate my costs'."

While this may be the right perspective, it's hard to accept it from an environmental health point of view. Most of these facilities will be in place for another 20 years to come. Do we just forget about it because it's too difficult?

Linda Strande from EAWAG in Switzerland cites the example of Japan, where high quality onsite systems (Jokhasou) exist in parallel with sewer based systems, and continuous effort are made to improve the on-site technology. The model is successful due to the strong enabling environment, which includes regulations on frequency of inspections, installation of onsite systems, licenses for people maintaining systems, etc. It also includes subsidies so that truck drivers do not have to pay to discharge sludge at treatment facilities.

The model maybe beyond reach of most countries who do not have such a strong enabling environment, but this does not mean that no progress could be made at all. For example Fany proposed to Ministry of Health in Indonesia to have two triggering points. The first triggering is all about stopping people from open defecation. The second triggering is to empty their septic tank (on the second year). The implication of this is to ensure

that Ministry of Health (somebody) assist the community on ascending the sanitation ladder. Also in Bhutan, small steps forward were made in the small town programme in Chukkha where owners of septic tanks were asked to make small upgrades, such as change the height of their outlet pipes.

Finally, it's important to remember that not only construction, but also O&M of the septic tanks will determine the level of contamination. As Linda says, the current situation is that nobody manages their septic tank until it fails. That is not limited to developing countries, Kumi writes that design and installation of on-site facilities may be stronger in industrialised countries, but failures down the track from lack of maintenance appear to be universal. For example, in the USA where 25% of the population is said to be served by on-site sanitation facilities, about half are estimated to be failing. Australian studies suggest similar rates of effluent standards not being met.

4. How do we technically find the best ways to improve existing on-site facilities?

While all write that the politically sensitive aspects around improving containment in the sanitation value chain is the most difficult, the technical challenge should not be underestimated. Dave Robbins from the USA shared a "nice" picture of a damaged dislodged septic tank. He also shared a list of basic quality criteria for proper septic tanks:

1. Selection of materials that will be long lasting and non-corroding in the soil;
2. Enough detention time to allow for at least partial anaerobic digestion;
3. Water-tight chambers (a minimum of 2);
4. Sanitary tees that draw effluent from the "clear zone" which is half way between the top of the sludge blanket and the bottom of the scum layer;
5. Proper venting with a vent stack that terminates above the peak of the roof (and not at nose level);
6. Access ports that allow for the proper desludging of the compartment, and not just a 10 cm inspection hole. Important to note that access ports should be gas tight and be able to be secured to exclude unauthorized entry;
7. Buoyancy forces should be considered in high groundwater areas when designing and installing tanks. Add enough weight on top of the tank (soil) to counteract the buoyancy forces. Avoid septic tank disasters, through proper installation. Set tanks on a level bed of compacted sand or gravel, fill with water (to identify leaks) and pack soil around tanks in .5 meter lifts and tamp with a 2X4 or other tamping device. This helps avoid differential settling.

In addition to these seven points, it's important to consider the distance to water sources, in function of soil type, and of course the accessibility for future desludging (very often forgotten!).

However, we all know that it's not so straightforward to realise standards in practice. Rajeev writes: "In all the cities we work, the septic tank or even the pit latrine in most of the cases are working simply as containment primarily because 1. The soak pit which is an integral part of the septic tank doesn't function due to high water table 2. No other technical options are promoted yet. Hence to avoid quick filling of the containment the only option is to directly connect to the drains or somehow link with nearby water bodies.

Shahidul Islam from SNV Bangladesh adds to this a number of real technical issues that people face when installing a septic tank. First of all Bangladesh is a densely populated and land is very scarce and costly in urban areas. This means that people try to maximise their construction on a very small piece of land and often no space remains to construct a soak well. Another aspect of reality is that people in middle and low income areas tend to gradually expand their houses (horizontally and/or vertically) over time. The number of people living in the house increases and the original septic tank might be under designed. Another complicated factor in reality in that many of the low income communities are located on a land filled by solid waste (municipalities often do it) which contains lots of non-degradable materials like polythene. This land does not soak the water from a soak well as expected.

So while we might have very nice technical solutions, as long as there is no capacity on the ground to anticipate, adjust and innovate in the right way, we still end up with non-functioning on-site facilities. Rajeev explains this issue of the lack of capacity of the front liners in (sanitation) construction sector. He mentions that there is

capacity, standards and regulation, but masonry is still not considered as a trade in any of the vocational school/training institutes. Masons starts working as helper and obtain years of experience through an apprenticeship with *'Raj Mistri'* (Head Mason) who had also followed the same route and very rarely had any formal or informal trainings (some of the cement companies do short orientation programmes). If you see the original design approved by the authority it will have all compliance but when constructing they will depend upon the Mason who have very little clue or understand the drawing. There comes the innovation of the Mason who somehow has to manage to get the outlet of the containment out of that premise so that it does not bother the household.

Kumi approaches the technical challenge from a different angle. She questions whether we should be rethinking the entire water based sanitation systems, explaining that the current sanitation technologies are more a product of history than the technically best solutions. Not especially clever solutions. Not necessarily, she writes, these are what would be done today if industrialised countries had the chance to start again. Lilliana from SNV Bolivia gives an example of alternative technology. This is a dry toilet approach, in which the whole chain until marketing of compost, is taken into account.

5. Other issues that you raised

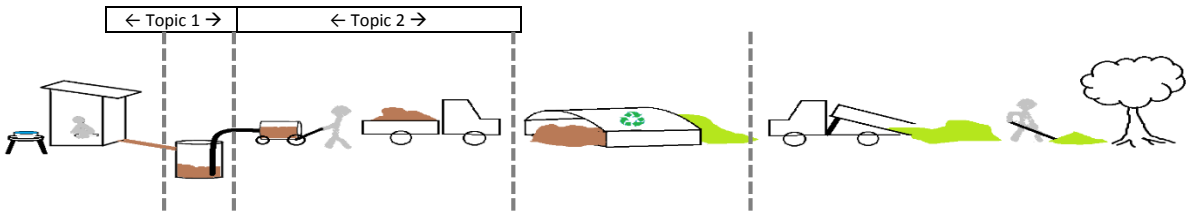
You raised more issues. Sahidul mentioned that containment is not only about household facilities, but also about trains, launches, ferries and steamers. We're simply ignoring the contamination from such other sources. Alfred mentions the liquid waste from slaughter houses etc. My 2 pennies is that it is certainly important to quantify and set priorities. No municipalities can possibly address all sources of faecal contamination at once and only specific data can help to set priorities.

Kumi and Heiko suggest exploring new ways of managing on-site sanitation facilities. One possibility is to integrate septic tank construction and management into the rest of the sanitation value chain. And then manage that chain professionally. Heiko asks whether it would be possible to "bundle" 5-7 households and reduce complexity (and costs) in that way. The question of course remains whether revenues can be raised (from the 4T's as Kumi says) to cover all costs of a professionalised system. Kumi's question: "Would it be easier to create supportive regulatory and institutional arrangements to enable professionalised entities to manage OSS collectively, than regulatory/institutional arrangements to induce individual householders to upgrade their OSS?" would be an excellent research question.

Topic 2: Emptying: different business models for organising emptying and collection

This second topic is about emptying of on-site sanitation facilities and faecal sludge collection and how we organise that most efficiently.

Of course the appropriate solution for emptying and collection is highly context specific and also we are still learning about this in the sector. However, comparing the different experiences, we hope to find some key principles.



First of all it's clear that a lot of emptying is already ongoing in the world, but often it's unsafe, unhygienic and the sludge is dumped in the wrong places. We are thus looking for emptying models with certain minimal

quality criteria. Secondly, the question is how to engage the different stakeholders in this part of the sanitation value chain. While it's clear that sanitation is a human right and governments are the duty bearers of that right, this does not mean that governments need to provide all services themselves. They need to ensure that all people have affordable and appropriate services. This raises the question about roles of different stakeholders. Finally some examples were shared in this topic, which for comparison are mapped against the sanitation value chain.

6. What should be minimal outcomes and quality criteria are that we would want to ensure through emptying and collection services for faecal sludge?

This seems a complex question, but it is not. It's about what we are trying to achieve by emptying and collection services. What the objectives or goals are.

John Sauer from Water for People in the USA said that the core principle to achieve are universal use (of safe and sustainable sanitation services) and zero pathogens in the environment (neighbourhoods, drainage and water ways). John was basically talking about addressing the whole sanitation chain, and also work towards geographically and institutionally complete solutions.

Kumi Abeysuriya from the Institute of Sustainable Futures in Sydney wrote that the aim of empyting services is:

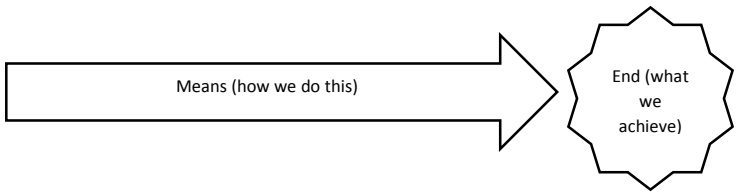
- to protect human health and the environment
- to provide services that meet occupational health and safety standards

Occupational health and safety standards for emptying is not a topic that receives a lot of attention. The question is whether it should be addressed first through regulation or first through practice. SNV is using a 2 pronged approach, promoting both a discussion about regulation and creating local awareness through a score card applied with emptiers themselves (I will share that score card at the bottom of this mail).

Kumi added that none of the above can be achieved without financially viable business models for service providers. She expresses her concern that particularly the smaller businesses are only marginally viable or only take into account cash flows to assess their profitability, not lifecycle costs.

Also Heiko Gebauer from EAWAG in Switzerland wrote in his contribution last week that one of the challenges is the financial attractiveness of manual emptying. This means that to move away from manual emptying, we need to drive efficiency and effectiveness of other emptying options, in particular says Heiko of the non-core processes of those businesses.

The contribution by Laurence Nakuru from SNV Kenya was about containment, but his point about the trade-off between ecological standards and financial viability is equally valid for emptying services. Laurence believes that addressing the ecological (and health I would add) aspects as well as the economic aspects in every part of the value chain, will guide us to what is feasible to sustain and what not.



So while our end goal is public health and zero pathogens in the environment (to say it loosely), the means needs to be both safe and financially sound.

7. To what extent do you feel that separation of roles (Policy/ regulation, oversight and service delivery) is needed for organising emptying and collection of faecal sludge?

In light of the above, Kumi concludes that leaving desludging to the market alone (without policy intervention) is unlikely to deliver the desired outcomes. Meaning that too much market optimism will not work. John does not mention the separation of roles explicitly, but he also talks about the need for rules and regulation by governments that provide enabling environment for entrepreneurs and local businesses and encourage households to adopt safer sanitation services and practices.

Laurence warns that though regulation may be in place, this does not necessarily always work out as intended in practice. So it's important to monitor for "derailed regulation".

Irfan Arianto from SNV Indonesia, shares that Indonesia has been working on urban sanitation for a long time: Integrated Urban Infrastructure Development Program (P3KT), Indonesia Sanitation sector Development Program (ISSDP) and which today is the Acceleration Program Sanitation Settlements (PPSP) with a minimum target of 330 has the City Sanitation Strategy (SSK). The central government as regulator and facilitator while local governments function as implementers, planners and faecal waste management services. Besides the separation of points another important need, Irfan says, is that the different stakeholders concerned with sanitation problems put aside their sectorial ego's.

David's example from Marikina city in the Philippines is actually an example of strong regulation by local government. The City enforces a local ordinance on sanitation that includes incentives for compliance and fines for non-compliance. A fee for wastewater service (20% of the water cost) is added to the water bill that covers the desludging and treatment cost. The private concessionaire deploys trucks and desludges the septic tanks on a street by street basis, one neighbourhood at a time on a 5 year cycle.

8. Do you want to share examples or experiences of organising emptying and collection of faecal sludge?

In the examples given by Dave, for the case of the city of Marikina, a concessionaire manages the emptying, while the city enforces the ordinance. Containment is the responsibility of households. However, the city does contribute a lot to the emptying process as well. They pass a sound truck to inform people about the services, their workers go door to door to help people with their septic tanks.

The other example provided by Dave, in Dumaguete city, has a similar institutional set-up, with the difference that emptying and transport is done by the Water District. Dave also mentions the re-use of biosolids, but it is not clear who manages that part.

example	User interface	containment	Emptying----- Transport		Treatment	Disposal – and/or---	Re-use
Marikina	HHs		concessionaire		City		
Dumaguete	HHs		Water District		City		?? Re-use of biosolids
Nakuru	Public toilet care taker?			Mobile primary collection points	City?		??

Reinilde Eppinga from SNV Kenya provides an example from the city of Nakuru in Kenya, where a consortium of organisations under leadership of Vitens is implementing the Nakuru County Sanitation programme. Reinilde mentions a number of technical innovations, but the institutional set-up is not fully clear. I have tried to capture this example as well in the above diagramme.

Topic 3: What does it take to ensure city-wide sanitation services?

As Kumi said during the previous discussion, ultimately we want to see protection of human health and the environment through services that are both financially viable as well as meeting occupational health and safety standards.

There are many very interesting initiatives ongoing in urban sanitation right now, in particular related to faecal sludge management, however most focus on a selected neighbourhood, e.g. only slums, or a part of the sanitation value chain, e.g. only emptying or treatment. While that innovation is good and extremely important, it does raise the question when and how do we get to city wide services? Is the ambition towards city-wide services even on our agenda?

In Indonesia and India, the government is supporting the development of city-wide strategies/ plans, however, translating those into city wide services is a second. Going city-wide +financially viable+ protection of human health& environment. It is definitely not so easy.

What should be the approach? Start small and then gradually scale up to city level, or start thinking from a city-wide perspective from the start and seek solutions that work in that context? We have learned from other sub-sectors (rural sanitation, urban water supply), that it's often very difficult to scale if you do not have the city-wide perspective from the start.

9. What does it take to ensure city wide services? The expectation of planning

It is interesting that the first reactions to the question about ensuring city-wide sanitation have a very strong planning focus, while this was exactly the topic of last year's learning event (urban sanitation planning and finance). Marko Msambazi from SNV Tanzania says city-wide sanitation should be taken into consideration from the start, and it should be part of the wider city/town plan. Also Christoph Luthi from EAWAG mentions a number of experiences (Indonesian ISSDP & PPSP programme and Indian city sanitation plans) as well as manuals on urban sanitation planning (Sanitation21 and WSUP's Urban Programming Guide). In the box at the bottom of this summary, I will copy the text of the last year's Dgroup discussion regarding the Indonesian and Indian urban sanitation planning approaches.

There are many different approaches used for planning in urban sanitation. While Indonesia emphasizes the participatory process, India relies more on data and work by consultants to develop their sanitation plans. WSUP in its guide writes that planning is everything, but not overambitious master plans that are not used, though the later: "No plans that are not used", is echoed by all.

10. The reality of planning and other strategies

As Christoph says, the complexity and needs in urban sanitation are huge, dynamic and ever changing. Local authorities find themselves overwhelmed by the unmet demand. Making a good workable plan for this is very very difficult. Marko says that city wide sanitation requires a well organised government structure and that the sanitation plan should be part of the wide city/town plan. Christoph mentions 4 conditions to make city wide services a success, the key word being "alignment":

1. Political will to provide services for all
2. Financial arrangements, earmarked budgets and investment for O&M as well.
3. Skill and capacities
4. Meaningful user participation

Again something on which most people will agree, but how to put it into practice? The problems in urban sanitation are entangled and interdependent. While there may be some pro-poor solutions as Marko mentions (gulper, DEWATS), this still requires a system of oversight, enforcement, awareness.

Dave Robbins from the US provides the example of the aftermath of Super Typhoon Haiyan in the Philippines. The moto is: "Think big; start small". I think that the realisation of the magnitude of the urban sanitation challenge does feel sometimes like a Super Typhoon, but that's a an aside.

The example from Dave is interesting, because making city sanitation plans like in India or Indonesia is not done in the Philippines. Rather cities make a "Local Septage Ordinance" which regulates emptying and tariffs. This is implemented together with an awareness campaign for the public. In terms of investment, they have distinguished 2 phases in the city of Tacloban, a short term plan, which addresses the immediate emptying and treatment needs, and a long term plan (phase 2) which addresses the city wide needs.

I don't think that there is a simple answer to ensuring city wide services, and it's not going to come from planning alone. Yet, without planning, a number of fragmented localised activities may lose strategic focus and long term version. In this sense it sounds very much like the discussion about practical and strategic gender needs:

- Working first on practical needs may fail to address structural issues
- Working first on structural strategic issues will take too long and no visible progress is made (so people lose confidence)

We need a double track…

Indonesian urban sanitation strategies

Indonesian urban sanitation strategies approach[1] is now being implemented across the country in a national programme called "The Accelerating Sanitation for Human Settlements" (PPSP), which aims to support over 330 cities to develop their city sanitation plan. It is a collaboration of 3 ministries, Home, Public Works and Health, under the leadership of the National Planning Commission (BAPPENAS). The programme is supported with TA from the Urban Sanitation Development Program (USDP).

The PPSP programme trains and provides on-the-job facilitation support to a city sanitation stakeholder group (commission) to understand and analyse the sanitation situation and consequently develop an improvement strategy for the city. This is called the White Book and the City Sanitation Strategy respectively. After the city sanitation strategy, implementation funding agreements are made in the Programme Memorandum, this involves the program of activities, cost, financing source and time planning.

The process of city sanitation strategies in Indonesia takes several years from start to implementation on the ground. From meeting readiness criteria (eligibility criteria) in the first year, to preparation of the white book and city sanitation strategy in the second year, preparation of the project memorandum in the third year, integration of the proposed programmes and activities in regular government planning and budgeting in the fourth year, and then budget is allocated and implementation can start in the fifth year. The big advantages are of the achievements in stakeholder awareness, buy-in as well as the high degree of the institutionalisation of the approach. Information on the overall cost of the process is not available, but may reach to 50,000 USD per city, excluding indirect TA provided at national level as well as time investment of staff.

The city sanitation strategy in Indonesia is valid for 5 years and expected to be renewed after that. As mentioned by Sjoerd Kerstens, of the USDP programme, Public Works and the National Planning Commission are currently gathering feedback from 6 cities that are now in their second planning cycle. As a result of this feedback, a simplification of the data gathering process was achieved. A positive outcome was also that cities are starting to make a longer term plan now.

Indian urban sanitation plans

The Indian urban sanitation plans[2] are guided by the National Urban Sanitation Policy of the Ministry of Urban Development. As Indian is a federal state, States are now recommended to have State Sanitation Strategies which provide guidance for the development of City Sanitation Plans in their area. As explained in the presentation by WSP India during the workshop, State sanitation strategies include the following: Assignment of institutional responsibility, resources and capacities, Setting State level standards, Planning and financing, Reaching the Un-served populations and Urban Poor, Service Delivery in cities, Regulation of cities and within cities, M&E, Capacity Building & Training: schemes for training, Coordination and Implementation Arrangements. The following states already have strategies for sanitation: Orissa, West Bengal, Maharashtra, Madhya Pradesh, Andhra Pradesh, Uttar Pradesh, Chattisgarh, Tamilnadu and Tripura.

City sanitation planning in India started in 2008, when WSP developed the first CSP for Hoshangabad at the request of MoUD and Madhya Pradesh. In 2009 with MoUD advocacy and support 3 donors (JICA, GTZ and USAID) partnering approximately 50 CSPs were initiated. Ratings of cities were used to mobilise cities on a competitive basis to rapidly promote and achieve milestones.

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[1] More information can be found in:
http://www.irc.nl/content/download/187360/862598/file/Factsheet_SanitationWhiteBook_USDP.pdf
http://www.irc.nl/content/download/187363/862610/file/Factsheet_CitySanitationStrategy_USDP.pdf
http://www.irc.nl/content/download/187362/862607/file/Factsheet_EHRA_USDP.pdf
http://www.wsp.org/UserFiles/file/citywide_sanitation.pdf ("Marching together for a City wide Sanitation Strategy").

[2] For more information see the Indian Sanitation Portal: http://indiasanitationportal.org/
http://indiasanitationportal.org/425 (national urban sanitation policy)
http://www.susana.org/lang-en/library?view=ccbktypeitem&type=2&id=1582 (several city sanitation plans)

City Color Codes: Categories	
Category	Description
Red: Less than 33 points	Needs immediate remedial action
Black: 34 – 66 points	Needs considerable improvement
Blue: 67 - 90 points	Recovering
Green: 91 - 100 points	Healthy and clean city

The rating resulted in a huge push and public awareness of the issue: the outcomes were not good but it was a wake up call. All cities with population over 100,000 rated: 423 cities rated covering 72% urban population. After the ratings in 2010, 120 cities requested MoUD to support CSPs as means to improve their rating with outcome focussed planning. 2011 onwards, more donors (DFID, World Bank, UNHabitat, Water Aid and ADB) use CSP as a prerequiste for financing (209 cities). Initially rating was annual, but now it is biennial to give cities time to improve.

Additionally a donor coordination committee (GTZ, ADB, JICA, WSP) and a CSP Cell (comprising of Technical, financial, regulatory, social and institutional specialists – supported by donors) have been formed in 2011 to take forward the review and finalization process of CSPs.

In each state, the guidance for city sanitation plans is slightly different. Speaking in general, the city sanitation plan (CSP) is expected to be a comprehensive city wide plan addressing universal access, safe collection, treatment and disposal of 100% liquid and solid waste. It is not a detailed project reference, which comes later. The objective is to think city wide: no ring fencing services to the poor. The Indian urban sanitation plans also form a task force, but an implementing agency is appointed. Data collection relies more heavily on consultants. The cost of the planning process is between 14,000 USD for small towns (with 5,000 households) to 74,000 USD for larger towns with more than 150,000 households.

During the workshop, a presentation was made by WSP on the Indian city sanitation planning. It was shown that investment in urban water supply and sanitation increased drastically during the last two five year plans. In the tenth and eleventh plan, investments reached to 10,000 million and 23,955 million USD respectively. There are several national programmes that invest in sanitation.

http://indiasanitationportal.org/428 (self-check list for city sanitation plans)