

SANITATION IN SMALL TOWNS Challenges for the environment and the development



Session at the World Water Week 2018

This document provides a report from the session “Sanitation in small towns: challenges for the environment and the development” which took place during the World Water Week 2018, on the Tuesday 28th August, from 11:00 to 12:30am.

The session was organised by Eawag-Sandec, GIZ, Gret, pS-Eau, SuSanA, WaterAid and the World Bank. This event was organised following two previous sessions held the previous year during World Water Week 2017 on the same topic. The report of those two sessions can be found here.

The objectives of this year session was to deepen the debates on five key issues faced by small towns regarding sanitation and already discussed in 2017.

eawag
aquatic research

giz Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH

GRET
Professionnels du
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pS-Eau
programme
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Run of the session

11:00-11:10	Introduction
11:10-12:05	World café – two rounds of 20-minute discussion in groups <i>1) Financial viability of sanitation services in small towns</i> <i>2) Capacity building for sanitation services in small towns</i> <i>3) Incentives for small towns to improve sanitation</i> <i>4) Monitoring sanitation services in small towns</i> <i>5) Equity aspects</i>
12:05-12:25	Wrap-up of the world café
12:25-12:30	Conclusion

The session was moderated by Anna Kristina Kanathigoda (GIZ) and Rémi Kaupp (WaterAid).

INTRODUCTION

Defining the perimeter of small towns

Small towns commonly refer to human settlements that are smaller than these of urban and peri-urban areas (such as cities and secondary towns), but bigger than rural localities.

It is difficult to characterise small towns overall, as the definition varies from one country to another, based on the population size, the administrative status of the towns, the towns' economy (market town, transport hub, etc.), their regional influence. Sanitation services in small towns can vary as well depending on the context: sewer systems or on-site sanitation options, completed with manual or mechanised desludging, can be found.

In this session, we focused on the unique and shared challenges faced by small towns regarding sanitation services, rather than how to define them. For this purpose, we considered that:

“Small towns are settlements with a sufficiently high density of inhabitants that would justify collectively managed water supply and sanitation services. “

Identifying the challenges for sanitation services in small towns

Small towns are often too small to have conventional sanitation infrastructures such as sewerage, but are also too big to benefit from the sanitation approaches used in rural areas: sanitation services are therefore often non-functional or inexistent in small towns, despite public health issues raised by the lack of sanitation in settlements of this size and density.

This represents a major challenge for reaching SDG 6.2 and 6.3, being all the more urgent that small towns are home to a major part of the world population.¹

Sanitation services for small towns will also require adapting to their singularities in order to design financially viable services that include the safe management of excreta.

Some of these challenges, identified during the sessions held in 2017, are listed below:

¹ “Close to half of the world’s urban dwellers reside in settlements with fewer than 500,000 inhabitants” in [World Urbanization Prospects: The 2018 Revision, Key facts](#) (UN DESA)

In 2000, “20 to 50 % of the population in most low- and middle-income nations lived in small urban centres or large villages with small urban centre characteristics. These settlements also contained more than a quarter of the world’s total population” in [Meeting the Development Goals in Small Urban Centres: Water and Sanitation in the World’s cities 2006](#) (UN Habitat)

- **Weak institutional framework:** municipalities with no mandate, unclear responsibilities, etc. It was also found that, in some cases, a new context of devolution could have big impact on the implementation of sanitation programmes.
- **Lack of capacity:** as community approaches in small towns cannot be implemented in the same way as in rural areas, the professionalization of the sanitation service is required over time.
- **Lack of financial resources for investment:** small towns often lack the financial resources the CapEx required for the development of full sanitation chains (in particular the building of treatment stations).
- **Issues regarding the viability of services:** due to their size, economies of scale are not always possible in small towns. This can threaten the viability of the sanitation service over time and make the market of sanitation service provision unattractive for private operators.

Summary of the two sessions held in 2017

In 2017, two sessions were organised on this same topic. During one of the session, the participants chose three topics related to sanitation in small towns:

- 1) Financial viability of sanitation services in small towns
- 2) Capacity building for sanitation services in small towns
- 3) What are the incentives for small towns to improve sanitation?

The three groups discussed the challenges faced in small towns regarding the specific topics and the potential courses of action.

Financial viability

Mechanical emptying is not always viable in towns with less than 100,000 inhabitants. Land is expensive and can be a problem for building treatment stations.

Some of the solutions mentioned, in order to finance the service or to make it viable, included the clustering of towns for emptying services, the implementation of scheduled sanitation, the development of small-scale treatment plants to avoid trucks driving long distances, or the promotion of a standard design of latrines to facilitate desludging.

Capacity building

Some of the reasons behind the lack of capacity in small towns are due to: a “brain drain” of trained people, the lack of incentives or weak local politics.

The discussions mentioned:

- the need to better map the local actors, in order to assess the training needs and focus on the stakeholders willing to stay;
- the need to concentrate on economies of scale (multi-towns or clusters);
- the need to encourage self-learning and collaboration between small towns, at national and regional level, as a way to close the gap between dynamic towns and the ones lagging behind.

Incentives

Incentives for sanitation are important and can be of different types:

- Appropriate financial incentives include: subsidies to buy latrines, sanitation marketing, subsidy targeting the municipality...
- Strong incentives may also be non-financially based. Eg.: tourism, competitions between towns, aspiration to become a « modern » city, incentives for the certification of emptiers.

The full report of the sessions can be found [here](#).

SUMMARY OF THE WORLD CAFÉ

Building on the outcomes of the previous sessions, 5 discussion tables were organised. Participants could chose one topic among:

- 1) *Financial viability of sanitation services in small towns*
- 2) *Capacity building for sanitation services in small towns*
- 3) *Incentives for small towns to improve sanitation*
- 4) *Monitoring sanitation services in small towns*
- 5) *Equity aspects*

Table 1: Financial viability of sanitation services in small towns

This table was facilitated by Martin Gambrill (World Bank), with Rémi Kaupp (WaterAid) as the rapporteur.

Capital expenditure (CapEx)

- The issue is not necessarily the money available, but how it is used (who will benefit from it? Does the money reach small towns?). Investments need to be smarter and less top-down (cases of central planners making plans, which are then implemented locally without consultation);
- Investments in infrastructure should be commensurate with investments in institutions;

- We may need to lead the way with water services, i.e. ensure the financial viability for water services (reduce NRW, improve billing...) before investing in sanitation, in order to have a sufficient momentum.

Operational expenditure (OpEx)

- “Financial viability” may be a false promise as it doesn’t acknowledge the need for subsidies, especially in places where cost-recovery will be low and private sector almost non-existent (lack of tankers / emptiers in whole regions); and some services are only viable if incomplete from the perspective of the sanitation chain (e.g. emptying but not with transport).
- Subsidies are needed and always exist for sewers anyway; this should be documented to enable comparisons and benchmarks.
- The role of taxes may be more important in small towns.
- There are big equity issues in tariffs with the poor subsidising the rich, that also need to be addressed by taking a deep look at sanitation surcharges / tariffs.
- Scheduled emptying as in Malaysia can be useful to have appropriate and transparent tariffs.

How to proceed?

- Manage the existing situation by being pragmatic: ad-hoc emptying and trenches for disposal can be sufficient for now.
- Plan for the future: one important aspect is knowing / modelling the costs of on-site sanitation, given the variety of possible systems. There is work ongoing on this (e.g. University of Leeds).
- Resource recovery can only provide up to 10% of OpEx recovery... but that is still something. If aiming for resource recovery, start with products that people already use (fertiliser, charcoal...) to see what is desired.

Additional ideas

- Difference between funding (getting money) and financing (mechanisms to use the money).
- If towns are too small, is it the role of the district to deal with financing? This is the case in Brazil where many towns are too small and distant. It has been useful to federate Water User Associations (with KPIs, regulated tariffs...), and create a community-professional hybrid.
- A question is where it is any better when you have a national utility as opposed to district / municipal ones? People felt that national utilities have big political pressures. But, in India, where municipalities take the lead on sanitation, municipal budgets play a much bigger role.

Table 2: Capacity building

This table was facilitated by Christoph Lüthi (Eawag-Sandec).

Challenges

Small towns have difficulties retaining qualified staff: once trained, people tend to move on to bigger cities or the private sector. How to incentivize young professionals to stay?

In general, not much targeted training for small towns is on offer. It can be difficult for workers in small towns to find the right training: much of the existing training is too technical and provided with a “big town” or city perspective. Training offers fail to include important aspects such as soft skills, business and management skills and focus on technical or budgetary issues.

Local authorities are understaffed and underequipped. They lack of modern IT, of connectivity, etc.

The private sector in small towns is often embryonic or informally organised, making it difficult to build capacity there.

Solutions

- Target staff that is willing to stay, e.g. older, settled persons or female staff, who tend to be less mobile;
- Avoids classroom offers, and include more exercises, field visits, interactive sessions, etc. for a better adapted “hands on” trainings;
- Create channels and training platforms at national or regional level, to inform about what training is available, where and how to access it.
- Create learning alliances between small town staff to exchange on best practices, problem solving, Q&A. In many countries, WhatsApp groups have proven to be a successful communication channel.
- Leverage opportunities of new training formats (e.g. eLearning, blended learning that combines analogue and digital formats, etc.). This is successfully being done in Brazil and India, for example.
- Create an “incentive structure” at the local authority level to retain staff: promote good performance, introduce mentors at small town level, training courses & study visits to other towns, etc.

Table 3: Incentives for small towns

This table was facilitated by Joseph Banzi (WaterAid), with Rebecca Gilsdorf (World Bank) as the rapporteur.

There is a need to carefully consider who the recipient of the incentive is, which depends of the overall objectives of the incentive. The group discussed this related to three types of stakeholders: government/service provider, households and private sector.

Overall, there is a great need to better document what does and does not work in a given context.

Incentivizing governments/service providers

Challenges

- Incentivizing pit/tank emptying depend on the operator responsible for it – whether it's the private or public sector.
- Given the small scale, one frequent challenge is to get utilities to work in small towns, as they can't be profitable.
- Regulating the dissemination of incentives (financial or otherwise) can be particularly tricky

Ideas for how to address the identified challenges:

- Benchmarking and other forms of competition between towns has been found to be quite effective, especially if there are political gains that come from such activities. Example from Dar Es Salaam neighbourhood level: competitions with a small cash prize engaged the community who was invited to vote;
- Incentivizing pit/tank emptying can link to the SDGs (in particular targets 6.2 and 6.3);
- Engage wider range of government stakeholders (e.g. across ministries). This can create coordination challenges, but leadership helps enable action, so this is often critical to overall success;
- Information and knowledge sharing can help enable action - especially when it comes to sharing different technical options. South-South exchanges can be especially eye opening and impactful in this regard;
- Overall, keep in mind that at many levels of government, financial incentives may be less important than incentives that could help secure political votes in the future.

Incentivizing household behaviour change

Challenges

- People tend to think incentives means money and don't consider the wider suite of types of incentives. Money was proved to be the most reliable incentive in lots of cases (e.g., India) but many countries (e.g., Benin) won't provide financial incentives, especially for household-level changes;
- Incentivizing households use – not just asset construction – can be particularly challenging.
- It can be difficult to market or explain subsidies to households without marginalizing certain groups, while ensuring elite capture isn't an issue. We also need to ensure that individual dignity is upheld.

Ideas for how to address the identified challenges:

- Encourage household buy-in early in the process, which can then increase likelihood of use (e.g., through household engagement during construction, household contributions to investments, etc.);
- Knowledge sharing is also important for households. Simple education or information campaigns can sometimes help unlock potential demand. Examples of shared households not actually knowing who to tell when their septic tanks are full.

Incentivizing the private sector to engage

It is difficult to engage the private sector, given the limited potential for profit in small towns. Ensuring equity and equal access to services for all represent another important challenge.

Ideas for how to address the identified challenges:

The key to engaging the private sector is helping them ensure profits, which often requires support in mitigating the risk. Some examples of how to do this include:

- Scheduled emptying. Example from Malaysia, where services observed a significant drop in emptying after going from scheduled to unscheduled emptying. As a result, they are now thinking of switching back to scheduled emptying.
- Targeting on key areas/sub-populations groups;
- Engage in public toilet/school sanitation options and scale up activities from there.

Table 4: Sustainability of service: monitoring and evaluation

This table was facilitated by Christophe Le Jallé (pS-Eau), with Stefan Reuter (Borda) as the rapporteur.

The monitoring should be done at the small town scale, and look at the full value chain including on-site sanitation. The discussion took place under the hypothesis of a public service model, even though many of the ideas are applicable to other management models.

What do we want to monitor?

Different aspects can be monitored: coverage (open defecation), functionality and management. Eg: technical parameters such as the functionality of equipment, financial parameters such as cost recovery, user satisfaction, etc.

These measures are easier to monitor compared to the health or environmental impacts. On the other side, it is likely that a good coverage and quality of service along the sanitation chain can limit negative impacts on the environment or health in small towns.

Who can benefit from monitoring?

- The local authority can ensure that the quality of the service respond to the need and expectations, and therefore continuously improve the service;

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- The operators will be able to improve the quality of their service and ensure its sustainability
- The users, who have their own expectation regarding the quality and sustainability of the service, will be better informed and able to engage for the improvement of the service;
- The national level need to better understand the situation at local level, in order to improve its strategy and action plans and produce appropriate tools for the local levels stakeholders.

How should we monitor?

Monitoring needs to be done according to the context. Examples were given from Jordan (monitoring adapted to reuse experiences) and Ghana (monitoring with a focus on health).

Rapid monitoring systems are required. New technologies (e.g. mobile technologies) may play an important role for this, in particular for the users. GIS database, road maps and trucks tracking were mentioned as tools to monitor scheduled emptying services.

The responsibility for the monitoring needs to be clear (who is accountable for it?) to ensure proper collection and sharing. For example, if users rate the service provider, someone should have the responsibility to gather the information, extract and share the results in order to engage corrective action.

The administration has a key role in the monitoring, as the interface where data is collected and share with other stakeholders. Users should not be forgotten either. Communities in particular can be happy to connect and engage.

How to finance this monitoring service?

There are many models of financing the monitoring of service.

The group discussed the implementation of the human rights to water and sanitation services in small towns, under a public service perspective. In this context, they agreed that the government is responsible for the monitoring: in this case, public taxes should finance the service provision as well as the monitoring system.

Other questions mentioned during the discussions:

- How to include users/citizens in the monitoring of the local sanitation services and involve them in the decision process?
- How to share/publicize the data regarding the service?

Table 5: Equity aspects in small towns

This table was facilitated by Zachary Burt (Columbia University) and Anna Kristina Kanathigoda (GIZ), with Colette G enevaux (pS-Eau) as the rapporteur.

This table questioned the aspects of equity in sanitation, based on the current research followed by Zachary Burt in India, in collaboration with GIZ, University of California – Berkeley, Columbia University, Indian Institute of Technology – Bombay, Azim Premji University and Center for Multi-Disciplinary Research. → **See the presentation**

Challenges for equitable sanitation in small towns

Small towns face different challenges regarding their sanitation service: in a competition for capital, smaller cities are less likely than larger cities to be successful. Revenue collection and paying for O&M is a challenge, especially since they often lack the technical skills. Land acquisition can also be a problem.

All these challenges have an impact on equity:

- The most capable towns get state investment;
- When revenues fall short, private investment bridges the gap (for those who can afford);
- The larger towns attract the higher skilled workers, resulting in a “small town brain drain”;
- NIMBY’s are almost always higher income households.

Equity aspects should be taken into account from the start. Therefore, data are key to evaluate if the intervention has improved or not equity. Access and exposure depending on geographical areas are key parameters in this regard.

The type of exposure to untreated wastewater in particular is significant to characterise inequity in access level, whether the contamination happens through groundwater, piped water, direct contact with open drains, flooding, maintenance of sanitation systems (sanitation workers) or reuse (farm workers).

Access to subsidies and financial flows are also important parameters to evaluate inequity levels (who is paying for what?).

What would be an appropriate advocacy/planning tool to represent inequalities in sanitation?

SFDs diagrams have proven to be very effective for advocacy. With the aim of representing inequalities, this research is looking to adapt the SFD diagram and include equity parameters such as exposure to untreated excreta. Different questions arise from this: how to highlight differences in exposure depending on social categories? How to show when exposure is linked to the geography (place of residence/neighbourhood/..)?

Other tools were mentioned, such as the mapping of water safety planning, which could be used to highlight fecal flows. The participants also stressed the need to advocate for on-site sanitation, often seen as low standard solution even where sewers are not appropriate (typically in small towns).