sustainable sanitation alliance

SuSanA Factsheet

WG 1 – Capacity Development:

Capacity development for sustainable sanitation

August 2021

Summary

This factsheet aims to provide the basics on what is capacity development. It highlights how considering the different levels, multiple topics, and stakeholders are inherent to success. It summarizes the main capacity gaps for SDG 6, and presents available instruments and resources to close this gap.

The factsheet is intended to provide an entry point:

1. for sanitation practitioners to better understand capacity development and/or how to integrate it to achieve sustainable sanitation.
2. for capacity developers to better understand how to integrate sustainable sanitation in their projects/programmes/activities.

Ultimately it aims to provide the SuSanA community with a common understanding around capacity development in order to facilitate discussions about the capacity needs and priorities and how best to meet them.

The key messages are:

- Capacity development is a complex and all-encompassing process of learning and capability development at four levels including individuals, organizations, sectors/networks, and societies (enabling development).
- The aim is the formation and improvement of the ability to use efficiently and effectively own resources in order to achieve own goals.
- Capacity development interventions at one level are likely to have an impact on the others.
- Capacity development for sustainable sanitation has to address the full complexity of capacities along the entire sanitation systems from the toilet, to the collection, transport, treatment and reuse or disposal.
- To address this complexity, a transdisciplinary and interdisciplinary approach is required that involve multiple stakeholders: practitioners, academia, policy and decision makers, and citizens; and multiple professions and topics: technology, planning, finance, health and hygiene, monitoring and evaluation, etc.
- Addressing the four levels simultaneously requires a multi-instrument approach ranging from professional training, to organisational development, establishing collaboration systems, and advocacy.
- For all these instruments, knowledge management and sharing play a central role and combines different methods for an inclusive reach out: face to face interactions, print material, media and social media communication channels, web-based knowledge database and discussion forums, and blended and hybrid learning formats.
- Designing effective capacity development interventions is a long-term process that puts the learning strategy and learning outcome (partnership, outreach, and institutional and operational change) at the centre.

Introduction

At its foundation, sustainable sanitation offers a safe barrier between humans and excreta to ultimately maintain a clean environment and break the cycle of disease. Thus, ensuring sustainable sanitation means more than just toilet access. While toilets are part of the solution, they play a role within a system that goes along the entire sanitation value chain: from the user interface (toilet) to onsite storage and/or treatment, conveyance, (semi-)centralized treatment, and final reuse or disposal. Sustainable sanitation systems are economically viable, socially acceptable, and technically and institutionally appropriate. As such,

this definition highlights five criteria central to plan for sustainable sanitation (SuSanA, 2008):

1. protection of human health;
2. protection of the environment and natural resources;
3. locally appropriate technologies and viable operations;
4. financial and economic sustainability; and
5. socio-cultural and institutional acceptance.

This has been recognized by the sustainable development goal **SDG 6**, water and sanitation for all. Within SDG 6, sanitation is covered by target 6.2 but has an impact on many other targets, especially 6.1 - access to water, 6.3 - prevention of pollution, 6.6 - protect ecosystems. Also, **SDG 6** and sustainable sanitation are interlinked with many other SDGs (SuSanA, 2018; Parikh et al 2020). As an example, the protection of the environment and natural resources (criteria 2) relates to the targets of SDG 2 (Zero Hunger), 11 (Sustainable Cities & Communities), 14 (Life Below Water) and 15 (Life on Land). Thus, implementing sustainable sanitation can have a broad impact on almost all the SDGs (see Figure 1).

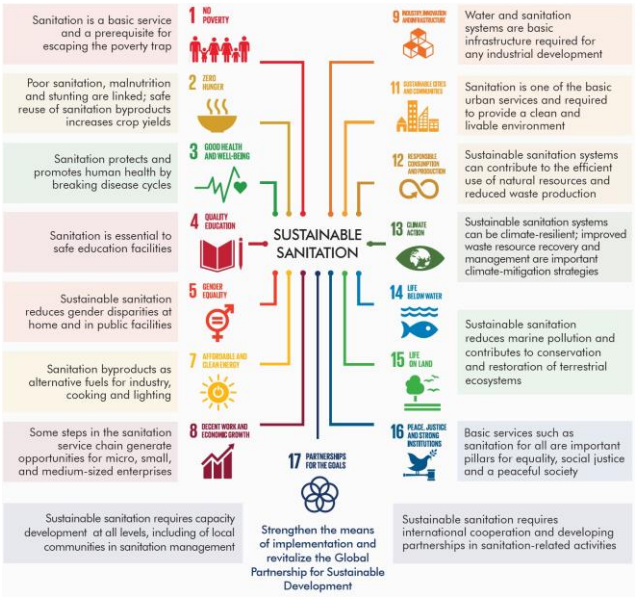

Figure 1: Sustainable sanitation interlinkages across the SDGs. Source: SuSanA Vision Document 2017

Despite important investments and effort towards achieving sustainable sanitation in the past, today still 55% of the global population do not even have access to safely managed sanitation services as of 2017 (UN, 2019).

Furthermore, 80% of wastewater globally is released into the environment without adequate treatment (WWAP, 2017). These figures underscore the work that remains in the decade ahead to meet the sanitation focused targets by the SDG 2030 deadline.

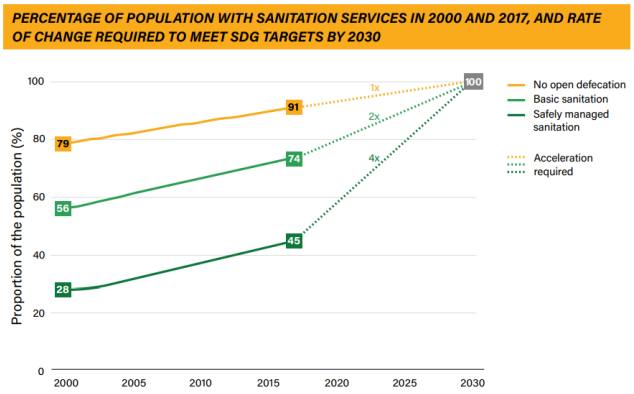

Figure 2: Percentage of Population with Sanitation Services in 2000 and 2017, and Rate of Change required to meet SDG Targets by 2030. Source: State of the Worlds Sanitation Report (UNICEF, 2020)

Extending sanitation to be safe and sustainable is neither prohibitively expensive nor technologically unattainable. But whether or not **SDG 6.2,** will be met, relies heavily on closing the capacity gap at different levels. Assessments have been undertaken to estimate the effort required to achieve the sanitation targets of SDG6 by 2030. The World Bank estimated that between USD 74 to 166 billion annually is needed to cover the capital costs of achieving targets 6.1 and 6.2 alone (Hutton & Varughese, 2016). The same study pointed out that beyond capital flows, financial and institutional strengthening are necessary to ensure that the investments translate into effective delivery of services. With regards to target 6.3, an estimate from the International Water Association (IWA, 2014) pointed out that about one million sanitation professionals would need to be trained every year so as to meet the target of halving the proportion of untreated wastewater globally. These estimates from the World Bank and IWA offer a glimpse into the capacity development challenge which must be addressed so as to achieve progress within SDG 6.

Ultimately, innovations to design and deliver capacity development opportunities at scale are as important as the service-level and technological innovations to scale sustainable sanitation. As such, there needs to be a common understanding around capacity development in order to facilitate discussions about the capacity needs and priorities and how best to meet them.

This factsheet aims to provide the basics on what is capacity development. It highlights how considering the different levels, the multiple topics, and stakeholders are inherent to success. It summarizes the main capacity gaps for SDG 6, and presents available instruments and resources to close this gap.

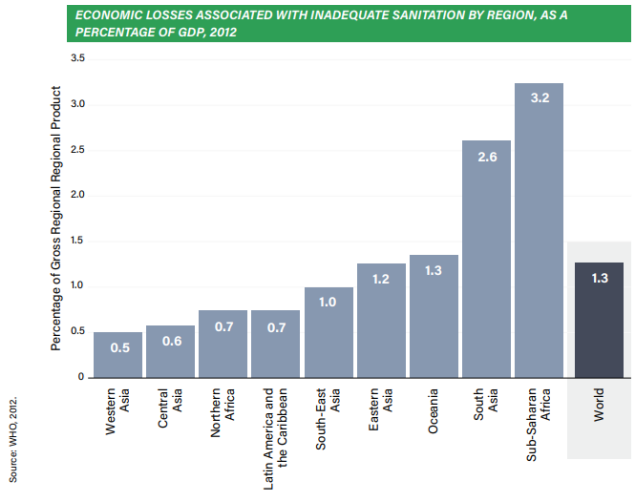

Figure 2: Economic Losses associated with inadequate Sanitation by Region, as a Percentage of GDP, 2012. Source: from State of the Worlds Sanitation Report (UNICEF, 2020)

What is Capacity Development …and its levels

Although capacity development is promoted as central to development, people everywhere struggle to explain exactly what it is (Bos, 2006; Morgan, 2005). Unfortunately, capacity development is often simplified as a component of technical assistance and training, accompanied by workshops and exposure visits. But capacity development is far more complex. **SuSanA WG1 understands capacity development as a complex and all-encompassing process of learning and capability development at different levels including individuals, organisations, sectors/networks, and societies (enabling development)**.

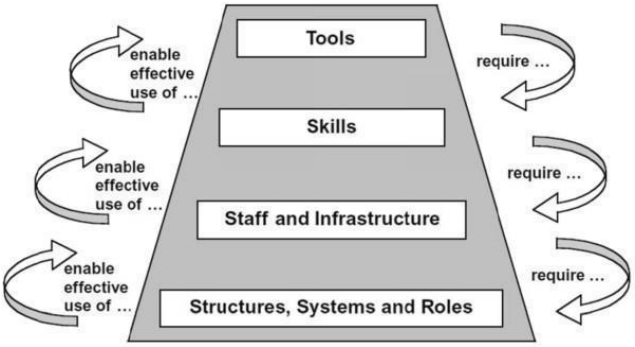

Figure 3: Capacity Pyramid. Source: Capacity pyramid. Shows the capacity building hierarchy and the... | Download Scientific Diagram (researchgate.net)

The aim is the formation and improvement of the ability of individuals, organizations and societies to use efficiently and effectively their resources in order to achieve the goals they have set themselves. This requires thinking outside of the box and encouraging technical (i.e. solutions that allow for minimizing resource requirements and optimize reuse), cultural (i.e. solutions that are socially and institutionally accepted) as well as organisational innovations (i.e. solutions that leverage a number of stakeholders, especially the private sector). To achieve this, capacity development should be designed to lead to:

- Increase the abilities of **individuals** to express themselves, to solve problems and to reflect themselves their own behaviour and thinking – the micro perspective;
- Enable organizations of the state, civil society and private sector to increase performance and the ability to collaborate;
- Development of new and deeper levels of knowledge, skills and advocacy outcomes, possible through effective, decentralized, democratic **collaborative platforms** (working groups, alliances, user groups and networks);
- Creation of an **enabling environment** to empower the stakeholders in state and society to formulate, negotiate and implement policies for a democratic and sustainable development based on the rule of law – the "macro" perspective.

Figure 4: Levels of Capacity Development. Source: About Capacity Development | IHE Delft Institute for Water Education (un-ihe.org)

Although often not thought of, the sector level is particularly important as it defines the collective capability of a sector to identify and understand its development issues and goals, to act to address these, to learn from experience, and to generate and accumulate knowledge for the future. This is also the basis for the enabling environment. But all levels of capacity development are important because they are also interdependent. Capacity development interventions at one level are likely to have an impact on the others:

- At the **individual** level: people have the abilities and capabilities that contribute to the performance of an organisation, or system, both formal such as government or informal.
- At the **organisational** level: individuals make up organisations - the sharing of skills, knowledge, experience and values amongst the individuals will translate into the organisation's capacity, consisting of procedures, systems, and culture.
- At the **sector** level: formal and informal networks can support the co-creation of knowledge through collaborative systems both in-person and online. This contributes not only to capacity level at individual and organisational level, but also supports the creation of an enabling environment.
- At the **institutional** level: the laws and regulations inform who should be doing what (responsibilities) and how (procedures). These together with incentives influence institutional and financial arrangements, and the behaviours and capacities of individuals, organisations, and networks that make the enabling environment. The enabling environment encompasses the "**institutional level**" but is broader in its scope.

Across all these levels, capacity development for sustainable sanitation targets multiple stakeholders:

- **Practitioners** – Across the entire sanitation service chain: local NGOs, private sector, government officials, consultants engaged in supporting and implementing WASH programs and projects.
- **Academia** – Including the students and teaching staff as well as the researcher undertaking interdisciplinary collaborative research work with practitioners. Course curriculum integration of relevant WASH priorities can upscale their reach and impact for sustainable sanitation at scale.
- **Policy and Decision Makers** – Higher level government, bi-lateral institutions, funders and donors that support capacity development and receive clear recommendations for policy decision making.
- **Citizen groups** – Including rural and urban community-based organisations that either implement or/and also initiate and manage sanitation projects. To be considered are also their informal and formal representatives at the regional and national levels that emerge in the form of pressure groups and political parties.

Understanding Capacity Development Complexities

Sanitation in general and sustainable sanitation are complex topics involving not only multiple levels and stakeholders, but also requiring a transdisciplinary (multi-stakeholder), and interdisciplinary (multi-topical) approach. Capacity development can play a pivotal role in coping with this complexity. Without developed capacity there is limited exchange and transfer of knowledge; inefficient use of available resources; poor service delivery, second-rate performance; inadequate infrastructure that is poorly adapted to the local context, and insufficient maintenance, all which deter investment.

A **multi-level approach** is required to address individuals, organisations, networks and the enabling environment in an integrated manner and at the same time. Only if good practice examples are available at individual or organisational level, institutions will adapt. On the other hand, if private and governmental organisations are not on board, the enabling environment will not be prepared for sustainable sanitation. And only if the enabling environment is provided, organisations can effectively provide sustainable sanitation services. But services can only be provided, if the professional skills at the individual level are available. Addressing all levels simultaneously requires a multi-instrument approach

ranging from awareness raising, to professional training as well as lobbying and advocacy (see "Instruments" section). Not all capacity development interventions have to target all levels; however, recognizing how the levels interact can inform more effective capacity development programmes (see "Effectiveness" section).

A **multi-stakeholder** and **transdisciplinary** approach is required to address the enabling environment and to enable collaboration between practitioners, academia, policy and decision makers, and citizens. Moreover, collaboration and coordination with other development stakeholders such as international NGOs and UN organisations has to be coordinated. They can play a crucial role in upscaling knowledge across the globe. At the same time national and internationally transdisciplinary neutral networks can enable constructive discussion about challenges, problems, mistakes, etc.

Capacity development for sustainable sanitation also requires a **multi-dimensional and interdisciplinary** approach bringing together engineers, health extension workers, economists, sociologists, and policy makers that can deal with the various socio-cultural, political and institutional, environmental, technical and financial dimensions. All these dimensions need to be brought together, to work together and to be able to look beyond one's own discipline or role.

A **multi-topical approach** is required because sustainable sanitation requires so many different elements ranging from technology development and implementation, to pro-poor financing, demand creation, sanitation marketing, hygiene promotion, governance, budgeting, monitoring and evaluation, gender and social inclusion, circular economy, agriculture, etc. In order to ensure that sanitation professionals, organisations, and institutions have the right capacity and skills to deliver sustainable sanitation services, skills for all these various topics are required.

Understanding the Effectiveness of Capacity Development

As presented above, capacity development is an all-encompassing process of learning and capability development, including training of individuals, organisational development and creation of an enabling environment. Unfortunately, capacity development is increasingly seen as a component of technical assistance, packaged into large multilateral and bilateral international programs and projects. This of course, allows to achieve a certain scale, but there are also disadvantages arising from this rather top-down and standardized one-size-fits all approach. Moreover, these large initiatives are often designed for privatization of public sector utilities in infrastructure or even the social development sector (education and health). Capacity development is reduced to a transaction advisory support for institutional transformation of large government departments and utilities, essentially for fixing a new legal quasi government or private entity/institution. Technical training is at best a limited add on learning focus, accompanied by workshops and exposure visits for senior officials and policy makers. With very little outputs and outcomes of knowledge generation, learning in terms of content and approaches.

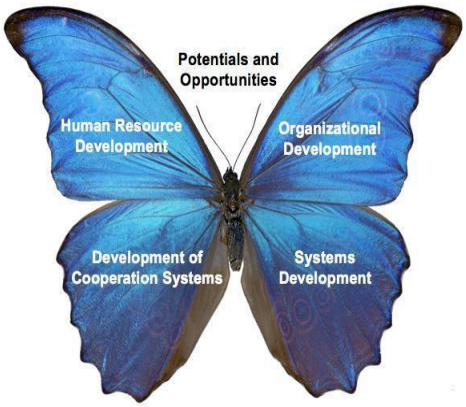

Figure 5: The potentials and opportunities of capacity development. Source and copyright: R. Batliner, Nadel 2021, https://nadel.ethz.ch/

A key challenge for the future is thus to effectively link scalable capacity development instruments with locally anchored and tailored existing capacity development processes.

One approach to achieve this is the blended learning (see Designing Capacity Development Interventions). Another useful instrument is the Capacity Development Effectiveness Ladder (CDEL) Framework that puts learning as the core of all capacity development.

People learn more effectively through:

- Gathering, synthesizing, and analysing information;
- Working autonomously to a high standard with minimal supervision;
- Leading other autonomous workers through influence;

- Being creative and turning that creativity into action;
- Thinking critically and asking the right questions;
- Striving to understand others' perspectives and to understand the entirety of an issue;
- Communicating effectively, often using technology;
- Working ethically, firmly based in both your own society and the planet as a whole.

Considering these aspects can inform more effective capacity development interventions. Moreover, capacity development has to be seen as a learning initiative and a creative, evolving process. Thus, capacity development is a continuous and iterative process of understanding capacity gaps (assessment), designing and implementation, and monitoring and evaluation (see also "Designing Capacity Development Interventions")

The CDEL Framework highlights five critical steps/stages of an effective capacity development intervention that has learning as its focus:

1. **Content:** Did the learning content generated by the intervention add any original learning value? What was the value add to learning, the learning collaterals produced (training modules, research, technical assistance, policy guidance), and the value add for the sector in general?
2. **Partnership:** Were the partnerships appropriate in ensuring content development quality and dissemination? What was strategic and effective in terms of partnerships and stakeholder engagement?
3. **Learning strategy:** Did the capacity development program evolve into or produce a learning strategy? Did it develop as a creative and organic process of engagement and not as a formalistic one? Was it effective in achieving the aims of generating appropriate and high value learning and its dissemination?
4. **Visioning change:** Was there a concrete visioning of solution(s) that connected learning to practice (proof of concept)? Was there an achievement towards a higher level of meta narrative and understanding of change?
5. **Discourse:** Did the capacity development intervention contribute to the national and international discourse and learning on capacity development? What was the larger, beyond the program, contribution of capacity development? What legacy did it leave?

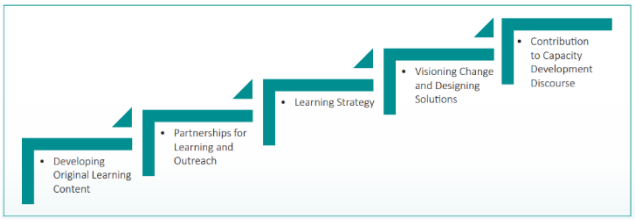

Figure 6: Capacity Development Effectiveness Ladder (CDEL) Framework. Source: Understanding Effectiveness of Capacity Development: Lessons from Sanitation Capacity Building Platform(SCBP), Kapur, D. (2021).

Any ambitious long-term capacity development intervention should leave a mark on all the five steps of the ladder over its life cycle, to justify its effectiveness. Less ambitious initiatives may achieve one or more steps of the CDEL ladder.

Capacity Needs & Priorities to Achieve SDGs

The following table summarises a number of key needs for capacity development in the sanitation sector to achieve the SDGs.

Level	Needs
Individual	• Identify and strengthen both technical (i.e. viable infrastructure and service delivery) and functional (i.e. project management & leadership) competencies of sanitation stakeholders along the entire value chain • Design capacity development opportunities that suit the learning needs and preferences of sanitation stakeholders along the sanitation value chain (i.e. format, duration, language, etc.) • Design capacity development opportunities to reflect the task and challenges faced in the real world • Capitalize on existing individual capacities
Organisational	• Identify organisational capacity gaps such as human resource attainment, retention, knowledge management and safe work environments • Develop capacity development strategies within organisations to address identified technical and functional competency gaps

Enabling Environment	• Advocacy to approach achieving all SDG targets holistically • Policies & regulations that frame and guide the work of organisations and individuals, including those relevant to sustainable sanitation • Policies & strategies to systematically address capacity gaps and track progress in order to achieve SDGs
Global	• Methods to capture outcomes of capacity development initiatives beyond financial flows of official development assistance (ODA) • Coordinate 'suppliers' of capacity development opportunities to capitalize already existing resources and to troubleshoot emergent gaps

Designing Capacity Development Interventions

Capacity development is a long-term process, which strongly depends on the specific context. Designing capacity development interventions for sustainable sanitation requires a systematic approach including but not limited to three stages:

1. Assessment,
2. Design and implementation, and
3. Monitoring and evaluation.

However, this should not be seen as a linear process but as an agile process with shorter and longer iterative cycles where monitoring and evaluation are used to adjust previous interventions and to design the next steps to take. As capacity development engagement moves forward, a deeper understanding of capacity gaps will emerge, leading to the development of a longer-term **learning strategy**.

The first stage, **assessing the gaps** in capacity, is essential to identify the existing capacities, the capacities that need to be developed and the context in which the need occurs. Ideally, assessments include all four levels of capacity development (individual, organisational, sector, enabling environment) and are aligned with country or sector level assessments.

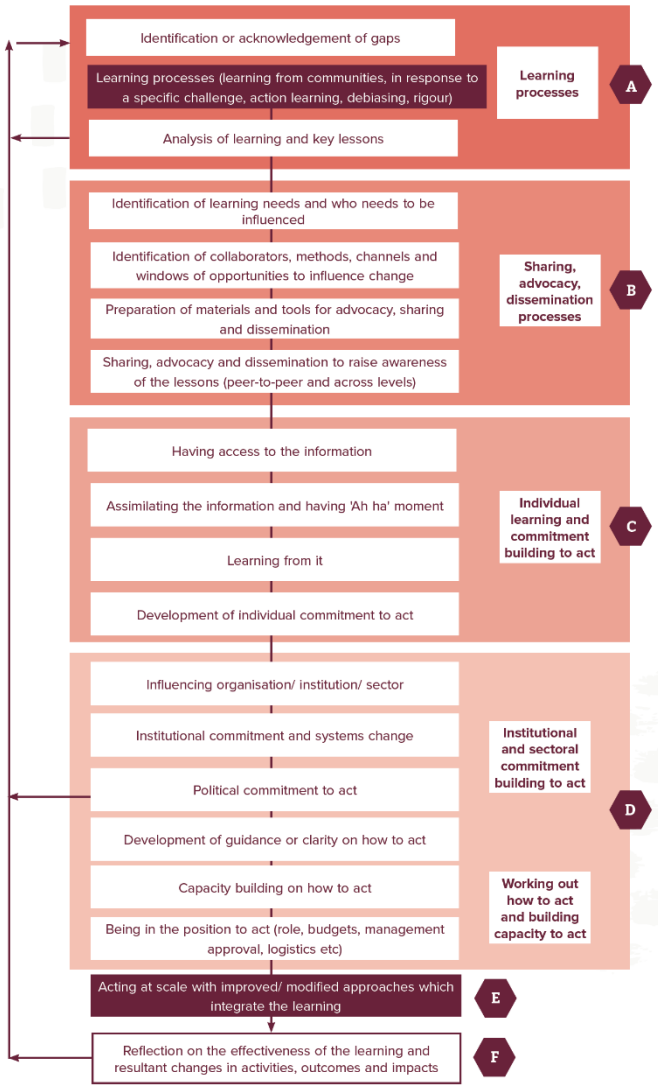

Figure 7: Turning Learning from Communities to Action at Scale.
Source: SLH Learning Paper 10_House.pdf (ids.ac.uk)

The first gap assessment allows the **design and implementation of capacity development** interventions in a **learning strategy** in a second step. Questions, such as "What is absolutely essential, what can be achieved quickly, what is the energy for change, what are brain gain and retention strategies, what are the mechanisms and tools for knowledge sharing, and what resources are available" can inform the learning strategy and individual activities. In line with the SDGs, the need for inclusiveness is increasingly recognized. Therefore, the resulting strategies should be coordinated with country and sector level strategies and the activities be developed in partnership with relevant stakeholders such as the private sector, government and local institutions implementing capacity development at the local level. Recently, local capacity development platforms have been created for instance in Bangladesh, India, and

West Africa but are short of funds, trainers and capacity development content. This gap could be filled by international capacity development organisations engaging in "blended learning" approaches combining online international capacity development with training led by local organisations. The blended learning approaches also have the potential to encourage more diversity by accommodating a wider range of audiences in particular of women, youth, and marginalized groups.

Monitoring and evaluating the capacities and learning strategies for persisting or new gaps is the third stage that is often an iterative part of designing and delivering capacity development interventions. Often measurement as it relates to capacity development is reduced to inputs such as human, financial, or physical resources and outputs such as the occurrence of training. However, on one hand inputs and outputs do not capture the strategies or activities' contribution to actual capacity development. On the other hand the link between capacity development activities and real impact in the sanitation sector is very challenging to measure because it depends on a number of factors with varying contributions over time – of which a change in capacity may be only one.

That is not to say it should not be done. To inform improvements or to capture how capacity development leads to SDG progress, proper monitoring and evaluation is necessary. And to design effective long-term capacity development strategies with learning at its core, monitoring is crucial. At a sector level, impact analysis (e.g. contribution analysis, outcome mapping) might provide information on what type of interventions are more effective. However, impact analysis is time and data intensive and out of scope for smaller interventions. Results from previous impact analysis might be used to choose appropriate intervention strategies for smaller projects (https://developmentevidence.3ieimpact.org/). Additionally, there exist various semi-quantitative and qualitative methods that allow to capture, if not the impact, at least the effect of capacity development interventions. This includes for instance the CDEL (see above), or more generic methods such as the "Most-Siginficant-Change".

Other approaches such as those being piloted at CAWST, look at the literature and innovation around training transfer to inform the design of trainings. Training transfer is impacted by three main factors: trainee characteristics (e.g. motivation to learn or transfer), training design and training environment. Observations, surveys and interviews can be used during, immediately after and a period after the training has ended to validate whether training transfer and the intended action for which the training was developed actually occurred.

In addition, any paradigm change intervention (e.g. decentralised Faecal Sludge and Septage Management in place of centralised Sewage Treatment Systems), does also require an **appropriate capacity development framework that can be developed by local actors and then influence the international discourse**. For instance, the Sanitation Capacity Building Platform in India came out with a Normative Framework for Capacity Development and a Digital Dissemination Strategy.

Capacity Development Instruments

The UNDP Primer on Capacity development proposes to select and design capacity development instruments that empower and strengthen endogenous capabilities by making the most of local resources (people, skills, technologies and institutions) and build on these (UNDP, 2009). Most capacity needs are best addressed with a combination of different instruments.

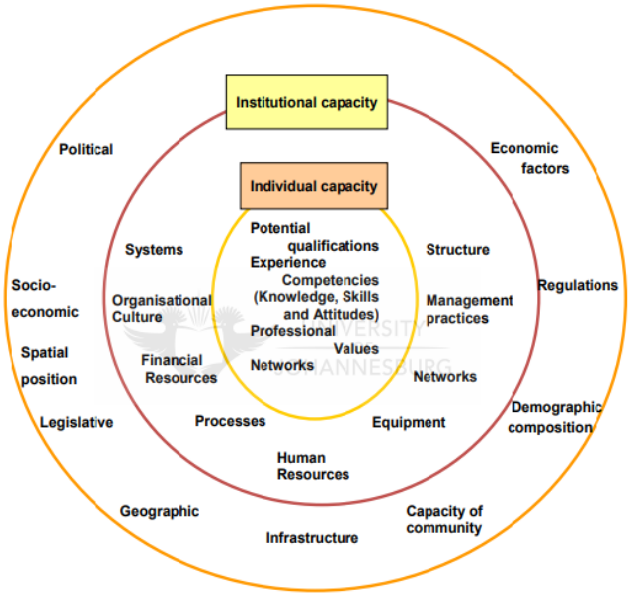

Figure 8: Examples of (Local) Resources for Capacity Building. Source: From "*National Capacity Building Framework (NCBF): 2012 to 2016*" by The Department of Cooperative Governance in the Ministry of CoGTA (2012)

The following categorization of instruments builds on the OECD working paper Training and Beyond: Seeking Better Practices for Capacity Development.

- **Education & Training:**
  The sanitation sector offers a rich and diverse landscape of education and training offers, including degree level studies, MOOCs, customized online, face-to-face and blended training, informal learning opportunities (e.g., educational channels on YouTube). They are being constantly upgraded and applied in a range of contexts. Due to the rapid development of digital learning, feasibility, advantages and constraints of online and offline training instruments are currently being constantly debated. While online training can enhance inclusiveness by decreasing physical distances and costs, it also exclusively addresses people and organisations that are virtually literate and have access to the internet (Suter & Lüthi, 2021). On the other hand, essential activities for effective learning (e.g. peer-to-peer learning or exposure visits) are difficult to be delivered online. Blended learning, where international capacity development hubs collaborate with local platforms is today seen as a major opportunity to combine both the advantages of online and offline education and learning and to scale up current activities.

- **Knowledge management:**
  Knowledge management is a cross cutting issue in capacity development. Organisations create value by collecting, compiling and sharing relevant information. Networks and learning alliances play a major role in improving knowledge management. Similar to training and education, international networks have the capacity to compile a large amount of international knowledge, while collaboration with local platforms and contextualisation of content encourages local uptake.

- **Coaching and mentoring:**
  While coaching is generally time bounded and focuses on organisational challenges, mentoring is a long-term process focusing on personal development.

- **Research and documentation:**
  Many new technology and system configurations have been proposed by research with the aim of enhancing the sustainability of sanitation in terms of flexibility to adapt to environmental and socio-demographic changes and resource efficiency. It is therefore important to document research, pilot projects and examples of scaling-up of innovation in the process of capacity development for sustainable sanitation. But not all capacity development in WASH is for project implementation. Sanitation research capacity development at the highest level is important for providing critical inputs to sanitation themes and priorities of international importance. These studies like the SHINE study results of 2019 have been informative in charting and agenda for WASH sector work and for capacity development. Importance of local research partners in such initiatives is also recognised as critical to the success of research work.

- **Organisational development:**
  An exclusive focus on capacity development initiatives on an individual level is not sufficient for sustainable development. Advancement of organisational systems enables simultaneous development across the whole organisation. Capacity development should be integral to a learning culture of regular work in an organisation. Opportunities should be created for staff of an organisation to learn on the job. Work opportunities for staff at all levels, that enable skill development during regular work, need to be consciously developed by all organisations. This culture should then allow to build up not only knowledge and skills, but also processes and procedures for sustainable sanitation within the organisation.

- **Partnerships & Networks:**
  Developing capacities through partnerships and networks fosters mutual learning processes and supports the creation of a common agenda. Capacity Building Learning Platforms at the international, national and regional levels are emerging as aggregators and collaborative learning and capacity development platforms. Interactive practitioners led WASH platforms, such as SuSanA, RWSN and SCBP offer a contemporary on demand learning and capacity development opportunity in WASH.

- **Lobbying & Advocacy**:
  Using advocacy in a well-coordinated and strategic way is a potential way forward for creating an enabling environment. Lobbying and

advocacy can be understood as a deliberate process, based on demonstrated evidence, to directly and indirectly influence decision-makers, stakeholders and relevant audiences to support and implement actions that contribute to sustainable sanitation.

Trends in Capacity Development Organisations

By the change of the century, capacity development in WASH has seen a change from International Development Agencies and smaller Civil Society Organisations led capacity development initiatives, to large national, governmental, bilateral and private foundations (e.g., Bill & Melinda Gates Foundation) led capacity development work.

- Capacity development for Organisation Development is increasingly applied by multilateral institutions in Africa and Asia.
- Bilateral funded initiatives for sanitation capacity development are now providing well-funded but often very specific technical assistance on capacity development
- Governmental sanitation departments have opened up international training centres that provide high value on site and exposure visits-based learning.
- Communications and Capacity Development have been clubbed together as WASH priorities and in some instances, these have become part of national programs.
- Sanitation Conferences in South Asia, Africa and other parts of the world.
- FSM Alliance by Gates Foundation has a focus on capacity development.

Side by side with the institutional consolidation of WASH capacity building trends, there is an emerging civil society and citizens groups that are also emerging, though not at the same scale and with the same representative power.

- Some Civil Society Organisations are still growing and emerging as national and international WASH training institutions, with in-house expertise and professionals.
- Capacity Development as Citizen led Planning and Development at Scale, is emerging as a priority area.

Any WASH capacity development initiative today needs to therefore engage with this trend and identify their own stakeholders to engage with.

Resources for Capacity Development

The sanitation sector has developed a wealth of resources, which are compiled and continuously updated in several web platforms, toolboxes and resource repositories. We highlight some key platforms, further important repositories can be found directly on the webpages of international and national development organisations, such as the World Bank, UNESCO, UNICEF, SWA, AfWA, AMCOW, Global WASH Cluster.

- The SuSanA platform offers a comprehensive library with over 3'000 resources, which can be filtered according to language, type of resource, etc. The activation of the filter option "Working group – Capacity development (WG1)" displays resources with focus on capacity development.
- The resource library of IRC offers an advanced search function
- Publications and Resources compiled by WEDC are designed for academics, policymakers and practitioners working in various aspects of water engineering and development.
- The Sustainable Sanitation and Water Management Toolbox offers tangible tools and resources to solve sanitation and water management challenges. Its catalogue offers numerous factsheets in alphabetical order.
- The FSM-toolbox contains a wealth of information about sanitation planning, stakeholder engagement and business models.
- The WASH Education and Training Resources developed by CAWST offers technical resources, training resources and posters, activities and videos.
- Washcapacity.info provides an overview on learning opportunities related to citywide inclusive sanitation, non-sewered sanitation, onsite-sanitation systems, or any aspect of faecal sludge management.
- Sanitation Capacity Building platform is designed to support and build the capacity of towns/cities in India to plan and implement decentralized sanitation solutions.
- Akvopedia is an open-source water, sanitation & hygiene resource that anyone can edit.

Conferences create important opportunities for exchange and networking, and often offer dedicated sessions to capacity development. This factsheet lists a selection of international conferences related to sustainable sanitation. Upcoming sanitation events

are listed on the SuSanA event calendar and on the WASH events calendar by IRC.

- The FSM-conference aims to bring together professionals working in the sector, including utilities, service providers, cities, governments, academics, scientists, consultants, donors and industries, to support the global initiative of disseminating sustainable solutions for FSM.
- The WEDC International Conference is a comprehensive and interactive learning event, which historically has provided continued professional development for water, sanitation and hygiene (WASH) sector professionals.
- During World Water Week, experts from the world's scientific, business, government and civic communities convened in Stockholm to exchange views, experiences and shape joint solutions to global water challenges.
- AfricaSan and Africa Water Week provides a pan-African forum to showcase best practices and support problem solving.
- The UNC Water and Health Conference: Science, Policy and Practice conference explores drinking water supply, sanitation, hygiene and water resources in both developing and developed countries with a strong public health emphasis.
- IWA offers several conferences and webinars related to urban and basin-wide water and sanitation challenges.
- The World Urban Forum convened by UN-Habitat focuses on sustainable urbanization in all its ramifications.

There are several **courses, learning programmes and training** related to sustainable sanitation offered by universities, training centres, governmental institutions, private sector companies and NGOs. We highlight a few exemplary offers for degree level studies, free online courses, customized training and informal learning opportunities.

- **Degree level studies:**
  The Global Sanitation Graduate School by IHE and partner organisations aims to facilitate the development and empower the dissemination of knowledge on sanitation through postgraduate (MSc) programs, online courses, face-to- face courses and tailor-made training. The Water, Sanitation and Health Engineering MSc by Leeds University is particularly aimed at consultants and working professionals in national and local government, non-government organisations, international development organisations and public health agencies. WEDC offers a MSc in Water Management for Development with a focus on water engineering and development.

- **Massive Open Online Courses:**
  The MOOC-series "Sanitation, Water and Solid Waste for Development" by Sandec/Eawag offers free and continuously running online courses on sanitation planning, faecal sludge management, water treatment and solid waste management. Further online courses related to sanitation can be found directly on the online learning platforms (e.g. Coursera. edX, Khan Academy).

- **Peer-to-Peer Learning such as Operator Partnerships:**
  Operator Partnerships have been used in the water sector between water utilities for years. More recently organisations such as African Water Association (AfWA) and Water Links have adapted the concept for sanitation, engaging utilities and municipalities in structured mentee/mentor relationships to conceptualize and plan citywide sanitation planning.

- **Customized training:**
  An increasing number of customized online, face-to-face and blended training related to sustainable sanitation is being offered on international and national level. Many of them are listed on the SuSanA forum section "Courses and training".

Useful general resources on capacity development have been developed by UNDP (Capacity Development - A UNDP Primer, Capacity Assessment Practice Note, Capacity Development Practice Note), OECD (Training and Beyond: Seeking Better Practices for Capacity Development), and the Austrian Development Agency (Manual Capacity Development).

How to Engage in SuSanA Working Group 1

The working group sees itself as a focal point and networking opportunity for anyone or any organisation which seeks to become active in capacity development for sustainable sanitation. As a SuSanA member, you are welcome to participate in the WG1 activities. Sign-up for the WG1 mailing list (select WG 1 in the registration process or go to "change your details" when you are already a member) to be updated on the most recent news and events. You can contact us (see contacts on the WG 1 page) to inquire or share thoughts on how you are able to lead or

contribute to one of the following activities (or any activities you judge relevant and significant to the WG):

1. **Knowledge management and sharing:**
   Compile and share resources that contribute to capacity development in sanitation on the SuSanA website. This includes training material, online curricula, trainer manuals and e-learning courses. Members can upload it themselves with specific admin rights, or send it to the secretariat via info@susana.org

2. **Communication:**
   Compile and share information on capacity development activities on the SuSanA webpage and forum. This includes training programs, courses, mentorships and student research projects. Members can get access to the event calendar to upload their trainings and events, and share information in the Discussion Forum (via direct post being logged in or via mail to posting@forum.susana.org, it will be posted under your member account by the moderators).

3. **Coordination & Learning Exchange:**
   Provide a space to connect members and partners as well as anyone interested in capacity development. This includes providing a platform for members to coordinate their activities on the SuSanA forum or during SuSanA meetings. All WG 1 members are invited to (co)host and (co)organise a (virtual) SuSanA WG 1 meeting to exchange experiences and discuss specific topics related to capacity development. Face-to-face meetings are well received back-to-back to bigger events, like conferences.

4. **Research**:
   Analyse and map the gaps in capacity development resources and activities to highlight the needs and demands of the sanitation sector. The optimal channel to reach out to other members and get their feedback is the Discussion Forum (via direct post or send it to posting@forum.susana.org)

5. **Advocacy:**
   Play a role in raising awareness of the huge need for capacity building in sanitation. This includes the compilation of position papers and factsheets. Do get in contact with the WG leads for co-creating and publishing these at SuSanA.

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Authors and contributors

1. Dorothee Spuhler
2. Laura Kohler
3. Depinder Kapur
4. Franziska Volk
5. Finn Staack
6. Daniel Ddieba
7. Fabian Sutter
8. Sandra van Soelen

Reviewers

1. Evans Tembo
2. Jamie Myers
3. Kirsten de Vette
4. Lourdes Valenzuela
5. Roshan Shrestha
6. Themba Gumbo

Further Contributions

Further contribution by the participants of the WG 1 meeting in August 2019 and August 2020.

Further Information

For questions or comments please contact the SuSanA secretariat at info@susana.org or susana@giz.de. We invite you to join the SuSanA discussion forum: www.forum.susana.org. This document is available at www.susana.org.