6th International Symposium on
Knowledge and Capacity for the Water Sector
FROM CAPACITY DEVELOPMENT
TO IMPLEMENTATION SCIENCE
27-29 May 2020 | Delft, the Netherlands

2020 Delft Agenda for Action

on Knowledge and Capacity for the Water Sector

Achieving the SDGs within 10 years will require substantive additional capacities in the water sector, as well as a change in mindsets. **The ongoing Covid-19 is highlighting persistent systemic vulnerabilities in infrastructure, institutions, and societies around the globe.** It also reconfirmed the existential role of water, sanitation and hygiene as "the first line of defence" and precondition for addressing many global challenges. Yet too many decision-makers, businesses and people around the world hope to return to a 'business as usual' that is lethal in an era of global environmental change.

Capacity Development (CD) for the water sector refers to the global effort to equip individuals, organizations, as well as societies as a whole with skills, competencies, and enabling structures to deliver water-related services and solve water-related problems. Decades of investment have led to improvements, but it has to be acknowledged that efforts so far failed to deliver hoped-for levels of progress. **It is becoming widely accepted that successful capacity development has to be more systemic.** Technical proficiency in individuals will not improve the performance of water service delivery without a supporting culture in organizations they work for. Expansion of grey infrastructure alone will not reduce water stress and vulnerability to disasters until the parallel destruction of surrounding green infrastructure is stopped and reversed. Delivering water 'hardware', from hand pumps in villages to smart water systems in urban centres, will not improve water security unless it is embedded with political and social institutions, and complemented with "human software" to operate, maintain, and govern it.

In an era of rapid global change, building capacity for a sustainable water sector means to build coalitions of partners spanning the global North and South, problem-driven knowledge production, the co-design of new forms of infrastructure, and a willingness and ability of each partner to step into a leadership role when their specific expertise is called for. Capacity for achieving the SDG is **preparedness for carrying responsibility** in a complex, changing and uncertain world.

In 2020, capacity development for the water sector faces five key challenges:

1) **Instil a systems perspective across all water related research, training, planning and decision-making**. Water issues are shaped by social and political dynamics and wicked in nature, always involving trade-offs between competing goals and values. Assessing water issues in silos creates business cases for 'stupid infrastructure' that yield short-term financial returns but make societies more vulnerable. CD funded and offered by agencies, institutes and NGOs focused on specific aspects of the water challenge compounds this problem, resulting in a patchwork of disconnected activities frequently lacking consideration for systemic side-effects of promoted approaches.

2) **Reduce capacity development activities with a short term or backward perspective.** A significant share of current CD in the water sector is based on the upscaling of 'best practices'. By definition, this focuses on problems of the past, and distracts from creating systems capable of adapting to new problems in the future. Engaging in repeated short-term pilot activities allows CD providers to learn from each attempt, while avoiding ownership for systemic consequences at the project sites.

3) **Break the 'counting heads' mentality for measuring impact.** Capacity development is still measured in terms of logistical indicators, such as numbers of people trained, years of schooling, or regulations ratified. For years, research has conclusively shown that this does not capture changes in capacity. The

sector needs to move beyond simplistic statistics, complement quantitative with qualitative methods, and measure systemic impacts in ways that speak to political decision-makers.

4) **Improve inclusiveness and blended approaches.** Achieving water-related SDG involves action by societies as a whole, which requires trust and social acceptance for innovations and change. Focusing capacity development on narrow groups of professionals distracts attention from stakeholders affected by new practices. Meaningful participation, in particular of women, youth, and marginalized groups, is a long-standing demand, but still lacking in practice. CD needs more diversity in blended approaches, to accommodate a wider range of audiences and learning styles.

5) **De-link more CD funding from project budgets.** Too much CD is linked to infrastructure projects, concentrating funding in one-off activities, not in areas of highest need. The 'last mile' of rural water supply, subsistence agriculture and the stewardship for essential aquatic ecosystems are particularly under-served. Pushing CD providers to become financially self-sustaining further directs efforts to 'clients' with financial means. Societal capacity to achieve the SDG includes public goods, and more mixed public-private financing models are needed to deliver it.

What we have shapes what we offer. Water-related capacity development remains locked into unsustainable path dependencies. The first step towards a new paradigm is to accept that in an uncertain world, **no single actor has a 'solution' for complex water issues.** At most, our technical expertise forms one piece of a larger puzzle that has to be assembled into context-specific, systemic approaches under local ownership. Greater awareness and respect for other disciplines and what they bring to the table is required as the basis for long-term collaboration in alliances capable of building systemic water capacity.

Stop

- Defund water infrastructure plans that increases systemic vulnerabilities ("stupid infrastructure")
- Question backward-looking 'best practices' for their adaptive potential solving future problems
- Reduce CD "pilots" that have no follow up and project linked CD without systemic components
- Measuring CD impact in quantitative terms ("doing what can be counted, not what counts")

Start

- Conduct needs assessments as opportunity (not deficit) analysis, with consideration for social and political acceptability of changes, and incentives needed for behavioural changes
- Combine all technical trainings, by default, with training in meta-skills that allow beneficiaries to autonomously adapt contents (e.g. design capacities), and soft skills that support implementation
- Refocus CD on creating agency, and the ability to solving problems we have not thought of yet
- Investing in infrastructure 'enabling people', including access to the internet, data and information

Do more

- Continue addressing persistent known challenges, including CD for utilities in the global South, reducing water loss, expanding basic access, and vocational training for infrastructure maintenance
- Expand efforts to contextualize water solutions, increasing their local institutional embedding
- Expand efforts to include women and youth in water-related decision making at all levels and times
- Expand initiatives addressing the complexity of water issues – focusing on interdisciplinarity, systems thinking, problem analysis, and institutional aspects

15 Immediate Actions to improve capacity in the water sector:

Instil a systems perspective across all water related research, training, planning and decision-making.

1. Public Authorities: Increase connections between water supply, water resource, and environmental water administrations and establish collaborative mechanisms for infrastructure related decisions
2. Funders/Investment Banks: Review the current capacity development portfolio for its contribution to climate change readiness and adaptiveness
3. Capacity Development Providers: Strengthen interdisciplinarity and systems thinking in curricula across the board, with priority for integrating ecology and green infrastructure in engineering
4. The Water Community: Advocate for greater diversity of expertise and disciplines needed to solve the global water crisis, actively countering perceptions of water as a 'technical' issue

Foster a long-term and forward-looking perspective in capacity development

5. Funders/Investment Banks: Increase the duration and connection of water-related capacity development programming, and integrate specific follow up funding "options" in pilot programmes
6. Public authorities/Water Service Organizations: Develop long-term frameworks for CD, including for staff and leadership development, and ensure funded projects align and contribute to the effort
7. Capacity Development Providers: Review if training curricula prepare participants to autonomously adapt and contextualize technical contents. Always include complementary meta-knowledge, such as design skills (e.g. design of monitoring systems when teaching monitoring methods), business skills, didactics and teaching skills to improve formal and informal knowledge sharing, and soft skills critical to working with stakeholders, including communication (listening) skills, problem analysis, negotiation, critical thinking, and behavioural understanding of social and political dynamics

Break the 'counting heads' mentality for measuring capacity development impact

8. Funders/Investment Banks: Modernize impact measurement in project proposals and evaluations, combining quantitative targets with qualitative methods assessing actual increased capacity.

Focusing capacity development on inclusiveness and blended approaches.

9. Funders/Investment Banks: Create leadership training programmes for female professionals, including an extended follow-up period of on-the-job mentoring and professional networking
10. Water Service Organizations/Utilities: Review working conditions for female staff, secure equal pay and career opportunities, safe work spaces, and work with all staff to break gendered work cultures
11. CD Providers: Increase study opportunities in French and Arabic, and make more content available in local languages. Diversify offers to address more different learning styles and personal situations.
12. Civil Society/Water Professionals: Support the development of blended approaches to CD, and help to interface local and traditional communication spaces with international resources

Funding for Capacity development

13. Funders/Development Banks: Create dedicated resources for the 'last mile' in rural areas, promoting decentralized social innovations, and informal decision making in communities
14. CD Providers: Diversify delivery modalities and invest in capacity to be facilitators of learning processes, not just content providers, e.g. assisting peer learning and south-south collaboration
15. Funders/CD providers: Reach out to the financial sector to increase knowledge about water investments, and train water professionals to attract investments with bankable projects