Is SDG 6 Likely or Ludicrous? Insights from an AI-powered study

Delivered by R-ai in collaboration with Susan Davis
January 20, 2025

Overview from WASH Nerd (Susan Davis)

Achieving global access to clean water and sanitation by 2030, as outlined in the Sustainable Development Goal 6 (SDG 6) targets, feels like a distant goal to many. Despite significant progress in some areas, respondents to a global survey generally see the glass as half empty - yet they remain hopeful it could be filled.

Why talk about feelings? Because systems are made up of people, and to change a system you have to change both human mindsets and behavior. Science shows that "Higher hope consistently is related to better outcomes in academics, athletics, physical health, psychological adjustment, and psychotherapy."[1] How can we bring collective hope to our efforts to achieve ambitious WASH outcomes?

Combined feedback from 150 responses from donors, implementers, and a few beneficiaries underscores that, despite billions of national government, international aid, and philanthropic dollars spent, SDG 6 targets remain unmet. Don't despair: many respondents also suggested what is needed to bridge the gap.

We asked, "Who is doing great work?" and "What do you find exciting?" Unsurprisingly, there was no consensus on who is doing great work. In fact, 11 respondents had no idea. The most often mentioned organizations were international non-governmental organizations (INGOs) (23 responses), especially those doing systems strengthening or market-based work. A pleasant surprise was that 11 respondents mentioned local organizations like PASA (Pan-African Association of Sanitation Actors), Uduma (West Africa), and RUWASA (Rural Water Supply and Sanitation Agency of Tanzania).

What's not working? Here I found no surprises: lack of collaboration, lack of feedback from key stakeholders, not enough money, and donors who just don't get it.

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[1] Hope Theory: Rainbows in the Mind, Psychological Injury, November 19, 2009

What could get us to SDG 6? Reflecting many discussions over past decades, respondents, like many other entities[2], called for more reliance on and support of local actors, collaboration, and mutual accountability.

Thank you to all my fellow WASH enthusiasts for taking time to share your thoughts.

Overview from the Organizational Development (OD)/AI nerds (Tom Kelly, Trevor Foux, Inigo Lapwood, R-ai)

This study leveraged a custom-built artificial intelligence (AI) tool, informed by decades of strategic consulting to Fortune 500 companies. Unlike generic AI models like ChatGPT, R-ai's algorithm is fine-tuned with a secure, specialized dataset comprising verbatim insights from 30 years of organizational feedback. Along with human expertise, it is a diagnostic aid to improve the performance of both private and public sector initiatives and identifies strategic improvements by applying proven behavioral models.

This approach, combined with the ability to affordably and rapidly capture and analyze insights from anyone with a phone, can be used to act on those insights in real time.

Our AI sentiment analysis reveals an interesting dichotomy: frustration and negativity dominate discussions of past WASH (Water, Sanitation, and Hygiene) initiatives, while optimism and potential emerge when participants share their visions for the future.
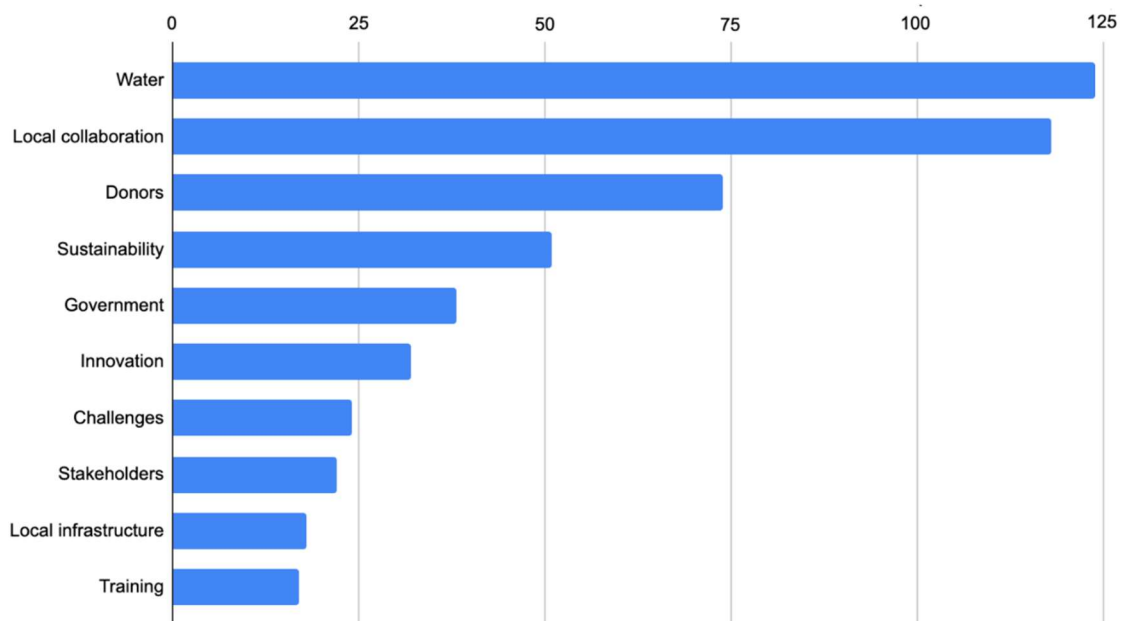
WASH sector, you are not alone! The responses reflect a classic pattern that impedes project and organizational performance:

- When performance is questionable, and feelings of frustration prevail, a lack of shared and inspiring clarity of focus usually prevails.
- Once the essential vision, goals, priorities, and action steps are in place, assuming they represent the views of all the key stakeholders, the optimal planning and execution of a project is more likely to occur.

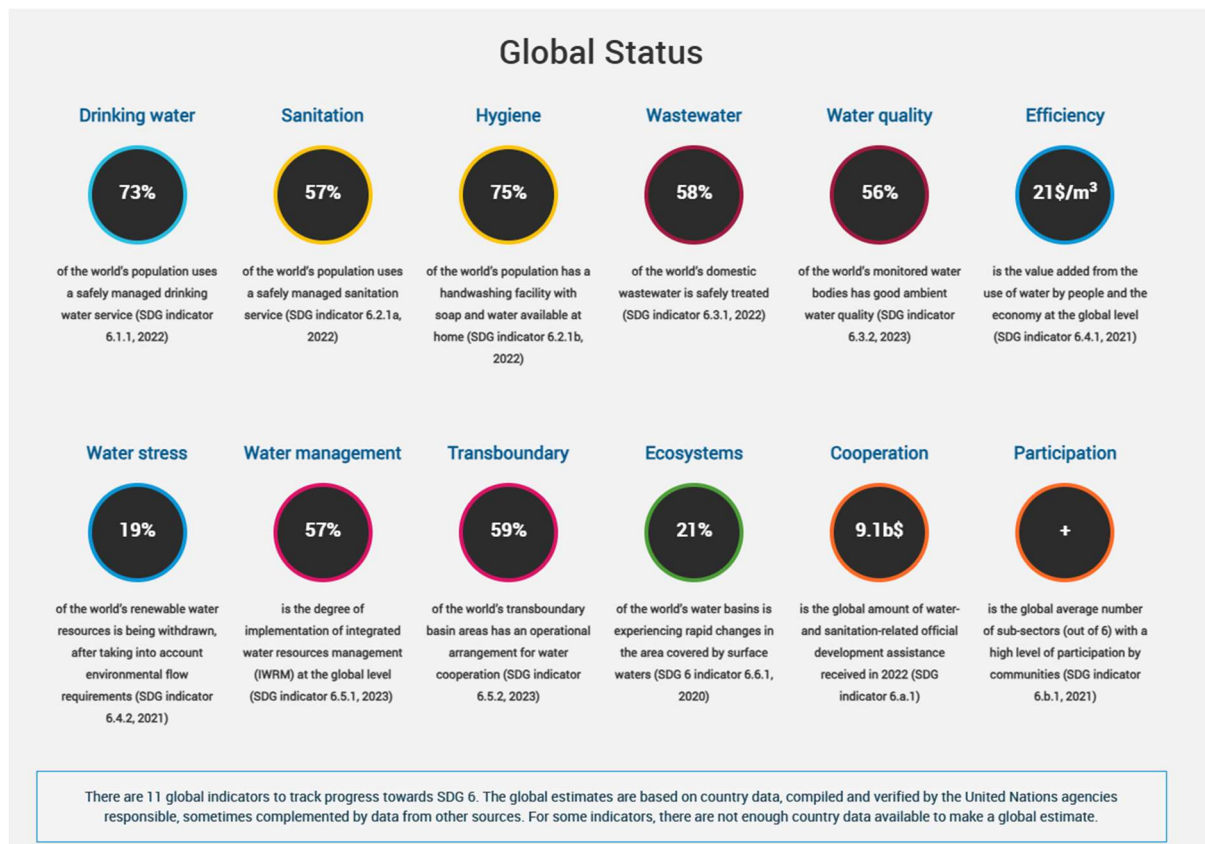[2] For example, Sanitation and Water for All and Agenda for Change.

Clusters of Major Themes by Number of Mentions

Our experience is that when patterns like this are surfaced, they can be addressed, and a positive turnaround is consistent. We look forward to joining you on this important journey towards Sustainable Development Goal 6.

The Present Condition

Global Status

Drinking water

73%

of the world's population uses a safely managed drinking water service (SDG indicator 6.1.1, 2022)

Sanitation

57%

of the world's population uses a safely managed sanitation service (SDG indicator 6.2.1a, 2022)

Hygiene

75%

of the world's population has a handwashing facility with soap and water available at home (SDG indicator 6.2.1b, 2022)

Wastewater

58%

of the world's domestic wastewater is safely treated (SDG indicator 6.3.1, 2022)

Water quality

56%

of the world's monitored water bodies has good ambient water quality (SDG indicator 6.3.2, 2023)

Efficiency

21$/m^3

is the value added from the use of water by people and the economy at the global level (SDG indicator 6.4.1, 2021)

Water stress

19%

of the world's renewable water resources is being withdrawn, after taking into account environmental flow requirements (SDG indicator 6.4.2, 2021)

Water management

57%

is the degree of implementation of integrated water resources management (IWRM) at the global level (SDG indicator 6.5.1, 2023)

Transboundary

59%

of the world's transboundary basin areas has an operational arrangement for water cooperation (SDG indicator 6.5.2, 2023)

Ecosystems

21%

of the world's water basins is experiencing rapid changes in the area covered by surface waters (SDG 6 indicator 6.6.1, 2020)

Cooperation

9.1b$

is the global amount of water- and sanitation-related official development assistance received in 2022 (SDG indicator 6.a.1)

Participation

+

is the global average number of sub-sectors (out of 6) with a high level of participation by communities (SDG indicator 6.b.1, 2021)

There are 11 global indicators to track progress towards SDG 6. The global estimates are based on country data, compiled and verified by the United Nations agencies responsible, sometimes complemented by data from other sources. For some indicators, there are not enough country data available to make a global estimate.

Source: https://www.sdg6data.org/en

We asked: What exciting changes have you seen in the past decade in the sector?

Several respondents were excited by themes related to people and mindsets, as opposed to just improved technologies and innovative approaches. Collaboration and systems thinking featured strongly.

Representative quotes include:
- "MUCH more visibility and rights for sanitation workers."
- "There has been greater recognition of the value and contribution of informal sanitation workers."
- "Community Engagement and Empowerment: There has been a significant shift toward involving communities in WASH planning and decision-making processes."
- "Civic participation, local ownership and leadership, multi-stakeholders coordination."

- "Shift in implementer and donor metrics of success, particularly in bilateral assistance; broader sectoral shift towards systems strengthening approaches, capacity strengthening, networks, and finance."
- "More emphasis on Equity and Inclusion/Leaving No One Behind (at least at policy level)."
- "The role of local government in WASH shifting to beneficiaries or custodians being in the lead to provide and sustain WASH services."
- "Some changes are occurring around more meaningful and strategic engagement, leveraging experience from current and past initiatives, innovations, promoting PPP [public-private partnerships] in rural settings, and some initiatives leveraging A.I."
- "More emphasis on safely managed solutions, not just hardware. More emphasis on district-level or municipal-level planning and government participation with expert implementers."

We asked: Who else are you seeing doing great work in this area?

It is not surprising to find no consensus on who is doing great work. In fact,11 respondents had no idea. The most often mentioned organizations were INGOs (23 responses) but what was surprising is that 11 respondents mentioned local actors like national governments, service providers, and networks.

Representative quotes include:
- "Some countries like India and Rwanda are showing that with presidential leadership, significant change is possible."
- "More sharing and recognition that it is the leadership on the ground with conditional support from the INGO for delivery by the beneficiary with sweat equity, tariffs, and local economic empowerment to pay for a better life and support system. At least the Sustainable Development Goal recognizes that water needs to be available on site."
- "I see a lot of people doing great work because they focus on their mission and not about placating to funder whimsy."
- "Benin's water project; MCC [Millennium Challenge Corporation] results-based financing for water (Sierra Leone etc); profitable operators at scale (Uduma)."
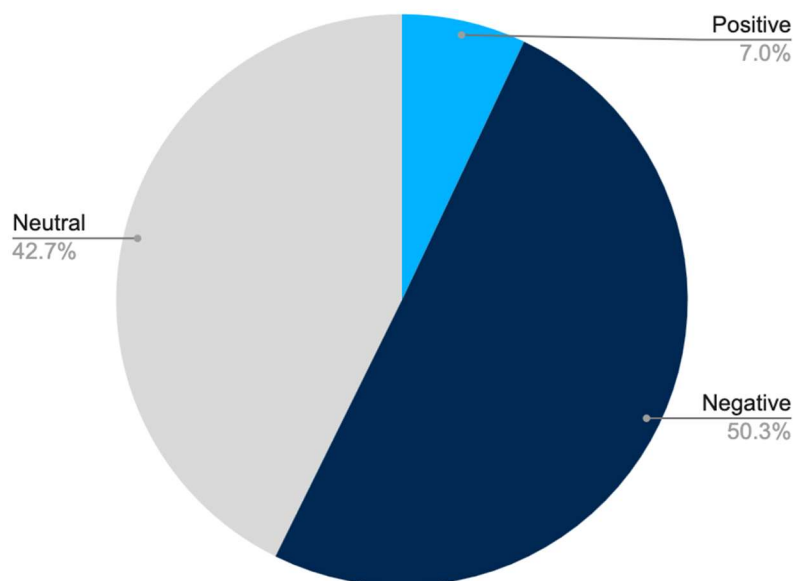
We asked: What or who is frustrating or blocking improvements?

The most common themes of frustration across responses were lack of coordination and lack of focus.

Lack of collaboration/coordination

More than 20% of all responses described a need for greater local coordination with key groups (e.g., donors, government, NGOs, implementers, beneficiaries).
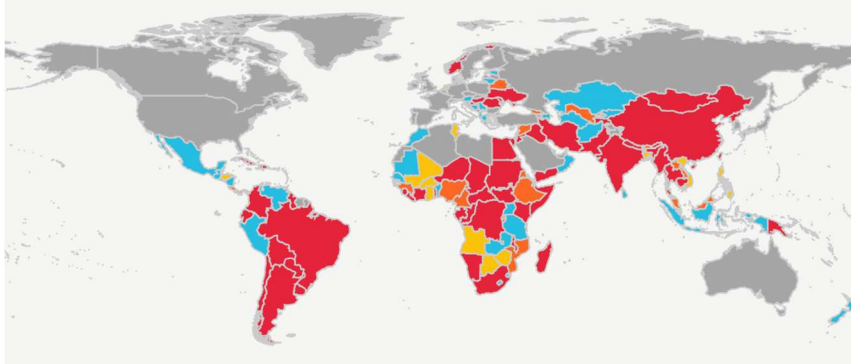
Sentiment 'local collaboration' - past

Positive
7.0%

Negative
50.3%

Neutral
42.7%

The chart illustrates the dominance of negative over positive feelings when the 150 respondents spoke about their past and recent experiences with collaboration.

This reflects broader sector data. While several countries have water and sanitation sub-sectors with clearly defined procedures in law or policy for participation by users/communities (SDG 6 data 2012-2021), only a few report a high level of participation by users/communities.

Number of water and sanitation sub-sectors with a high Level of participation by users/communities (2014-2021) The sub-sectors are urban drinking water, rural drinking water, urban sanitation, rural sanitation, hygiene promotion, and water resources planning and management.

Source: UN-Water https://www.sdg6data.org on 13 January 2025

Representative quotes include:

- "Lack of a strategic partnership between all the stakeholders in the water sector: each with a specific role to implement or support. [We] need coordination, not competition."
- "We struggle with community engagement: low levels of community involvement in water management decisions can lead to solutions that don't meet local needs."
- "More systematic and inclusive engagement with communities during design phases, more systematic feedback mechanisms to contextualize offers of services and promote ownership."
- "Multiple interests and actors, each fighting with support of their donors to promote and scale their ideas. I struggle to know the difference between a national idea or agenda, against the multiple approaches and strategies by different actors, each pursuing change using their own way."

Other frustrations described focus on the wrong things and reliance on outdated mindsets and approaches.

Illustrative quotes, organized by category, include:

Government leadership

- "Poor leadership and priority setting by leaders."
- "Siloed government sectors and decision-making."
- "Bureaucracy and bottlenecks with local and municipal governments are very frustrating."
- "Governments, donors, and implementers often view the private sector as service providers, not as strategic partners in innovation and sustainability on WASH services. This prevents leveraging the private sector for service delivery and expanded access."
- "Most frustrating is the absence of backup support to the community from the relevant government institution during the operation and maintenance period."
- "Funding, government policy."
- "Lack of proper planning in government, regional conflicts."

Accountability is to donors, not communities

- "Short-term funding, donor-driven agenda."
- "Donors directing funding instead of governments."
- "I feel frustrated with projects that put speed ahead of quality implementation, and [with] funders who don't pay attention to the full service. Who will manage the service once facilities have been constructed?"
- "Funding tied to specific criteria that don't necessarily lead to increased or sustained outcomes is an obstacle to sustainable growth in the sector."

- "Many organizations in-country remain accountable to where the funding comes from and not to the users/communities that they are actually serving."
- "International aid, including bi-lateral aid and NGO finance, is centered on the donor and donor needs, wants, and attribution, rather than on the rights, ideas, and lasting well-being of communities and community members receiving assistance."
- "Those who must find funds for their work are frustrated by the limitations in criteria for funding opportunities. For example, foundations that are well aligned but only want to work in 1-2 specific countries, only with new organizations, or only with specific models like WASH in schools instead of communities."

Implementing Organizations

- "'WASH sector actors think they are a one-stop shop for solving all problems. Currently NGOs and consultants all want to dive into climate resilience without the experience and know-how. They are then creating new frameworks or approaches that are subpar - creating more problems to fix into the future - instead of looking to other sector practices and pulling on existing expertise."
- "Most frustrating is [that organizations] raised money by saying they would install this many boreholes or latrines each year, and each year had photos proving they had done it. When 2015 came around, we may have reached the MDG target, without having changed anything as to why people did not have access."
- "Organizations whose priority is paying large salaries over doing what it takes to ensure sustainable change in development. [This] is extremely frustrating."
- "I feel the lack of resources invested in the issue, the lack of organizations piping water to homes, the level of complexity involved in developing a sustainable program. It takes 5 years for an organization to develop a working implementation model that they feel confident in."
- "Local NGOs may lack resources, skills, and expertise to manage complex water projects. Insufficient training in project management, monitoring, and evaluation hinders their ability to implement sustainable solutions."

Lack of focus

14% of responses mentioned lack of focus and direction.

Representative quotes include:

- "Frequent turnover of local government staff; misalignment of products and services with the need, aspirations, and [households'] ability to pay [for water]."
- "Over-complexifying what is already very complex."
- "Lack of prioritizing (in planning and budgeting) for sustainable WASH services."
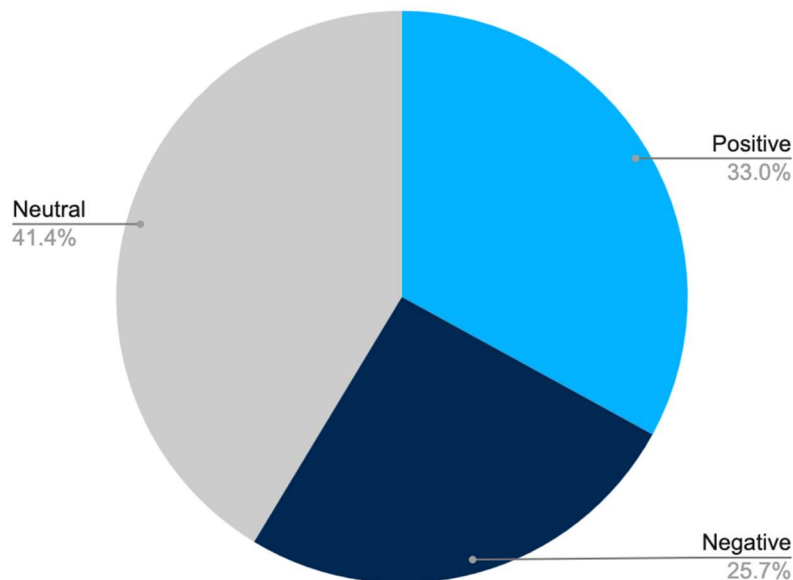
- "Not tracking previous infrastructure projects to ensure info on what's been done."

The Future Condition: Respondents' Visions

We asked: Imagine that, in 2030, everyone in your country (or the countries where you work) has safely managed water. How did that happen? What would you and others be doing differently today to achieve that vision?

As opposed to responses about the past, the AI sentiment analysis identified more positive or neutral feelings. Respondents' visions of how to achieve SDG 6 describe more reliance on and support of local actors, collective action towards systems strengthening, and accountability.

Sentiment 'local collaboration' - future

- Positive 33.0%
- Neutral 41.4%
- Negative 25.7%

Illustrative quotes, organized by theme, include:

Rely on local actors

- "We need to empower local institutions to perform their jobs easier, faster, and more effectively. Technology can be a powerful catalyst but it needs to be supported by change management practices, leadership and incentives, including accountability. Organizations that have no experience in technology development and deployment or topics such as resilience shouldn't pretend to be experts but find opportunities to partner with those that have those skills and expertise. Funding to these types of organizations needs to stop as it is just

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creating more knock-on problems. Funders need to not only fund large NGOs. This broken funding practice needs to stop."

- "Better engagement across sectors, less working in a silo, more support to local actors."
- "We would have public service delivery systems supporting community-driven approaches. There would be enough budgets allocated for WASH at national and local levels. There would be better O&M [operation and maintenance] systems. There would be skilled labour at local levels that is well compensated to stay and manage water systems."
- "Political commitment, local ownership and leadership, multi- stakeholder engagement. Institutional arrangement and influence."
- "Engage in shared/joint strategies with host government to leverage (financial) resources, institutionalize and promote good practices."
- "We must encourage and support governments to achieve their goals within the frameworks that they have set for themselves. It must be driven from within and solutions must be local."

Collaboration and systemic approaches
- "All North American and European NGOs would divide up the focus and then prioritize the next five years of projects and work together."
- "Wow! If only we could all work together to build projects with more collaboration and sharing of resources."
- "Complementarity and collective action; in general systems approaches."
- "We will have changed the donor culture to recognize 1) the centrality of water to every other goal 2) the necessity of climate adaptation and the infrastructure demands that that carries and 3) the need for patience and continuous learning."
- "Working together more; collaborative sectors to solve related problems."
- "Private sector funding was realized because the WASH sector became better listeners to the private sector, [and now] understands their constraints and needs, speaks their language. It will also mean more private sector development in WASH. I don't see governments scaling services fast enough to reach this milestone."

Accountability
- "We would have feedback data with incentives and penalties to maintain progress, adequate financial planning and tracking, citizens could hold local and national governments accountable with proper and effective sector reviews and joint coordination groups about everything that relates to water."

- "More investment, better organisation, more trained, skilled and motivated professionals, more scrutiny about what is working and what is not. Better accountability (much better)."
- "Professionalise service delivery within a regulatory framework that rewards good performance."
- "Strengthen our monitoring and evaluation frameworks to track progress, gather insights, and adapt strategies based on real-time data. Regular assessments would ensure that initiatives remain effective and relevant to community needs."

We asked: What is the way forward?

Respondents' recommendations will come as no surprise to anyone who has been to a WASH conference or read a WASH report in recent decades. Respondents said the WASH sector needs greater diversification, integrated thinking, and a focus beyond just infrastructure to drive long-term resilience and sustainability. Donors and managers should adopt equal partnership and transformational leadership approaches, supporting existing government frameworks and aligning efforts to avoid duplication. Regular, systematic joint sector reviews are essential for identifying gaps, while better risk management should be prioritized over reactive solutions.

Illustrative quotes include:

- "Diversification is sorely needed and a new way of thinking around solving problems and coming up with solutions. If you are trying to drive resilience, you need to understand the entire operating environment and the downstream and upstream root problems causing poor services."
- "Donors and managers should embrace an equal status attitude when dealing with both government staff and beneficiaries. Managers should embrace a transformational type of leadership when dealing with these stakeholders."
- "Annual joint sector review (donor, host government, and beneficiaries) as this is helping to identify gaps and provide solutions. But they must be made bi-annual and conducted systematically."
- "WASH sector tends to focus too much on infrastructure and the immediate actors in its system. But if it wants to enact sustainability and resilience goals, it needs to think about integrated water resource management and the other sectors/actors that can hamper or enable resilience."
- "Donors should be thought partners with grantees - they should also look to support the existing [government] frameworks in a cross-cutting way rather than starting their own new initiatives or strategies. It can often deprioritize what the [government] actually needs."

- "Funders need to come together and align better. Avoiding risk up front (by good system siting) would be preferable to installing a system and just doing a water safety plan after the fact."

Recommendations from Organizational Development experts

Examples of R-ai's previous work on this pattern include several multinational corporations. One case that seems relevant to the needs identified in this study is a major multinational corporation that had a big deficit in its annual growth target. It's relevant to this case because the WASH sector is multinational and has a deficit in its growth (in terms of people who need sustainable access to safe water and toilets). The SDGs apply to all countries, and the WASH sector is not on track for the growth it needs to reach the goals.

With our example corporation, staff felt far removed from senior management and said a clear strategy was missing. This is akin to WASH projects with key groups not fully included and lacking direction shared by all.

- **Action:** We recommended the corporation reduce their priorities and socialize them. The creation of a campaign called "Give Me Five" identified five key priorities. This focused everyone. Not only did staff participate in the strategy and priority setting process, but they also brought along customers and suppliers in parallel processes.
- **Result:** Rapid return to 10% growth target.

The systems approach the WASH sector is leaning towards for addressing water needs in countries could be applied to the sector. What if together we narrowed our focus on a few of the SDG 6 targets?

What can you do differently?

If a project or organization is in a process of understanding and meeting the needs of its most valued customers and staff, success in the evolution of the enterprise and the achievement of its targets is more likely to follow. In the WASH sector, if we center the voices of the people who will be using the water for decades to come, success is likely to follow. Implementers and donors should:

1. Look at how top businesses/organizations gather feedback from their customers.
2. Use these approaches to thoroughly understand the needs of water users (aka "beneficiaries"), national and local governments and institutions, and national

NGOs/CSOs. Get to know their vision of success to understand the optimal means of collaborating with them.

3. Align the project by identifying the common ground of a shared vision, and checking back regularly throughout to see if the activities are still leading towards the shared vision.

4. In the case of WASH projects that are already underway and that want to ensure improved performance, we recommend gathering feedback from all key stakeholders and aligning them with a shared vision, goals, key priorities, and timing to successfully reboot the project.
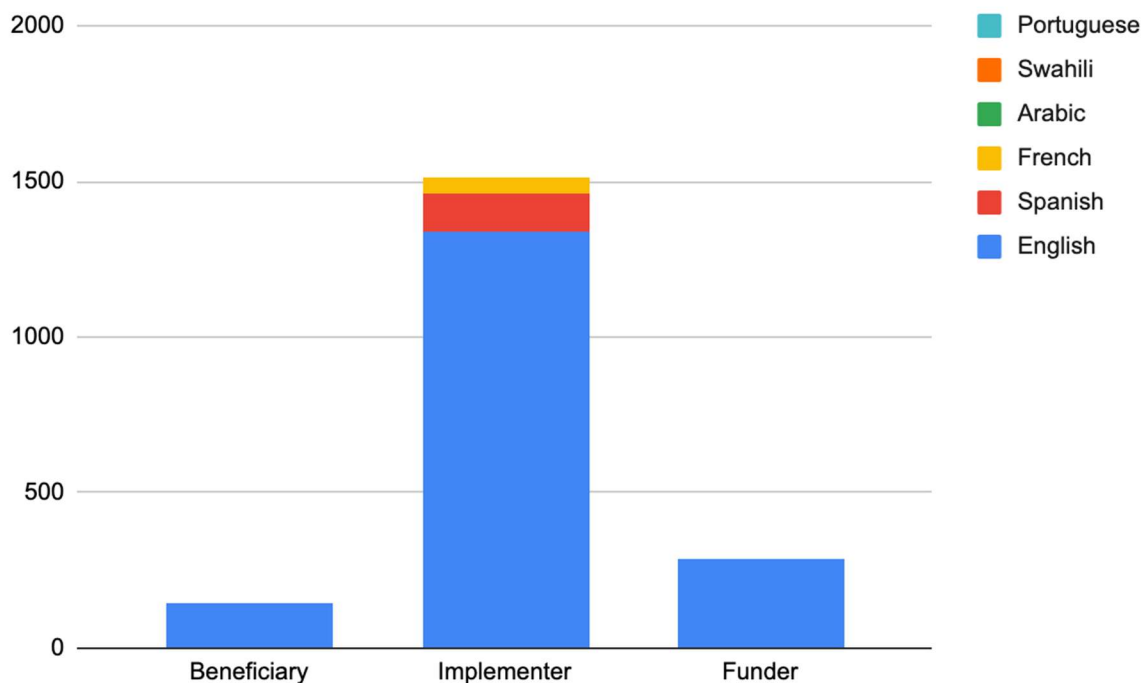
About R-ai

R-ai helps organizations exceed their targets while making employees feel more effective and aligned. The unique R-ai approach, mixing proprietary AI technology with an experienced team of consultants and associates, ensures that you receive the advantages in cost, time, and breadth of analysis that only automation can bring, with the confidence in quality control and depth of analysis that experienced professionals guarantee. Like Chat GPT, R-ai is a cutting-edge natural language AI into which people can input everyday spoken English or any other language - they can say pretty much whatever they'd like and the AI will understand it. Unlike Chat GPT, it's completely secure - none of the data is sent to the big software companies, and none of it gets reincorporated into the model. This means you'll never come across your sensitive staff data being regurgitated by the model when it's answering other people's questions - as you might with Chat GPT. Learn more at https://r-ai.co.uk

About Susan Davis

Susan is a WASH nerd, writer, and philanthropic advisor with 30 years of experience across 30 countries. She champions equitable social innovation, local leadership, and learning from failure. Contact her at washsmd@gmail.com.

How did we conduct this study?

Out of approximately 1,600 invitations sent to individuals across 108 countries, 150 responded. The bulk of them are self-categorized as implementers (as shown in the chart below). Respondents could respond verbally or by typing. The survey was made available in Arabic, English, French, Portuguese, Spanish, and Swahili.

2000

1500

1000

500

0

Portuguese
Swahili
Arabic
French
Spanish
English

Beneficiary   Implementer   Funder

R-ai WASH Study Questions

Thank you so much for participating in this study. Your answers will help inform the strategy for global water provision. It's completely anonymous, and run in collaboration with Susan Davis, a global WASH expert. We'll ask a few questions, and you can either click the record button to speak your answers, or type your answers in the textbox if you'd prefer. The whole thing should take around 15 minutes. To start, please select the category below that you feel most closely applies to you: Beneficiary | Funder | Implementer

Beneficiary

1. What is your ideal for water for all of your needs: you and your family (drinking, bathing, cleaning), your livelihood (animals, farm, business)? [For example, would you have piped water to your home, school, clinic, business? A toilet that could be easily cleaned in every building]
2. Imagine in a year from now you have what you wanted. How did that happen?
3. What or who is helping you achieve that ideal?
4. What or who is getting in the way of you achieving that ideal?
5. When you think about the water situation in your community and/or your country what inspires or satisfies you most?
6. When you think about the water situation in your community and/or your country what is most frustrating?

7. Imagine that, in 2030, everyone in your country has safely managed water. How did that happen? What would you and others be doing differently today to achieve that vision?

8. How was your experience of this process? Is there any way that we could help each other or work together? Anything else you would recommend?

Implementer

1. What sector do you work in most of the time?
2. How would you describe the program or approach you are engaged with?
3. What is working in that approach?
4. What is not working in that approach? What are the major challenges?
5. What inspires or satisfies you most?
6. What is most frustrating?
7. What would increase the lifespan of the outcomes you support or reduce failure?
8. What do you find most valuable and/or helpful about your leadership (donors, managers etc.)? What actions or behaviours would you like to see more of from them?
9. What actions do you find least helpful or least valuable? What actions or behaviours would you like to see more of or less of from them?
10. Imagine that, in 2030, everyone in your country (or the countries where you work) has safely managed water. How did that happen? What would you and others be doing differently today to achieve that vision?
11. At present, what are the major blocks/obstacles in the way of that vision of your future? For example: blocks within yourself, leadership, your area, between areas, strategy, recipient interface?
12. What are the actions that would reduce these blocks/obstacles?
13. What exciting changes have you seen in the past decade in the sector?
14. Who else are you seeing doing great work in this area and why?
15. How was your experience of this process? Is there any way that we could help each other or work together? Anything else you would recommend?

Donor

1. What sector do you support most of the time?
2. How would you describe your strategy related to funding?
3. What is working in that approach?
4. What is not working in that approach? What are the major challenges?
5. What inspires or satisfies you most?
6. What is most frustrating?
7. What would increase the lifespan of the outcomes you support or reduce failure?

8. What do you find most valuable and/or helpful about your leadership (donors, managers etc.)? What actions or behaviours would you like to see more of from them?

9. What actions do you find least helpful or least valuable? What actions or behaviours would you like to see more of or less of from them?

10. Imagine that, in 2030, everyone in your country (or the countries where you work) has safely managed water. How did that happen? What would you and others be doing differently today to achieve that vision?

11. At present, what are the major blocks/obstacles in the way of that vision of your future? For example: blocks within yourself, leadership, your area, between areas, strategy, recipient interface?

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15. How was your experience of this process? Is there any way that we could help each other or work together? Anything else you would recommend?