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Accountability and advocacy interventions in the water sector: a global evidence review

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ABSTRACT

This paper reports on a global review of evidence on the outcomes of accountability and advocacy interventions for improved water and sanitation service delivery, water resource management (WRM) sector governance, and the factors which influence their performance. Mapping current knowledge will help guide the community of practice, policy, and research working to strengthen water, sanitation, and hygiene (WASH) service delivery systems. We summarise the state of the evidence, key insights, and implications. Available evidence is relatively limited (151 papers) and is skewed towards India and East Africa (c. 50%), water service delivery (62%), and social accountability monitoring (54%). Most included articles (80%) associate accountability and advocacy with positive outcomes for sector performance. Positive outcomes are achieved through, for example: improved operational maintenance; access to data; representation and inclusion; political will; changes in policy, law, and process; new investment; and organisational performance. Impact is less frequently reported (32%) and attribution of impacts to interventions is a recurrent challenge. We identify 28 factors that determine the interventions' performance. These are used to populate a theory of change for accountability and advocacy interventions. The results of the review are important for those working on water sector system strengthening. They suggest the potential of accountability interventions to accelerate delivery of the Sustainable Development Goals (SDGs) on WASH, and provide an organising framework to strengthen intervention design and delivery, and future research.

Key words: accountability, advocacy, evidence, system strengthening, WASH, water governance

HIGHLIGHTS

- A global review of the evidence about accountability and advocacy interventions on water, including their outcomes and factors shaping performance.
- Provides a theory of change and knowledge base to guide theory, policy, and practice.
- Validates new research to explore community, governance, and contextual dynamics that constrain or stimulate accountability in the water sector.

GRAPHICAL ABSTRACT
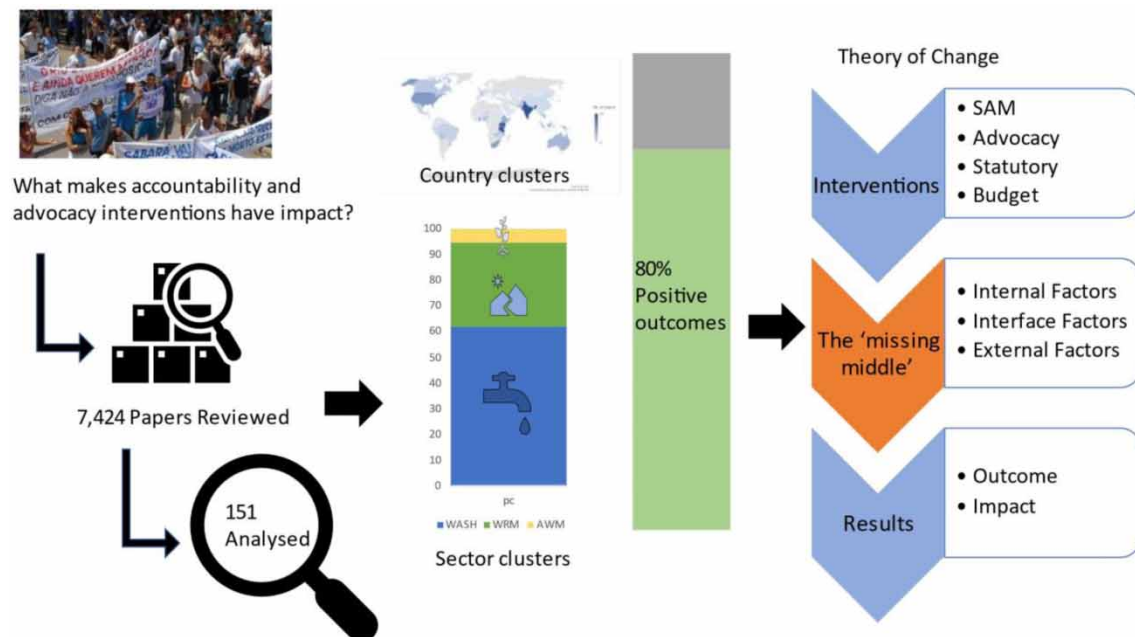
INTRODUCTION

This paper summarises the results of a global review of evidence on the outcomes of accountability and advocacy interventions for improved water and sanitation service delivery, water resource management (WRM) and water governance, and the factors which influence their performance. It was conducted by Water Witness International as an output of the Accountability for Water Programme, a collaboration which develops knowledge and practice to strengthen the accountability of all water stakeholders for the delivery of the water Sustainable Development Goal (SDG 6).[1]

The global water crisis means one in four people are without access to a safely managed water service, and one in three are without access to safely managed sanitation services (WHO/UNICEF 2020, p. 7). Four billion people face severe water scarcity each year (Mekonnen & Hoekstra 2016, p. 3), and the climate emergency may double the numbers facing severe water stress by 2050 (Munia *et al.* 2020, p. 9). Millions of vulnerable people face chronic water insecurity (UNESCO 2019, p. 142). This incorporates lack of protection from flooding and drought, and 'economic water scarcity' (p. 142) which can reflect the lack of security of water tenure, and lack of protection against pollution, water grabs, and resource degradation. Without mitigation, this in turn threatens deepening gender and social inequality and human suffering.

Our review is based on two foundational propositions, the first of which is that to ensure water security for all, the most important change is to improve governance.[2] The root cause of the water crisis is poor governance rather than absolute scarcity, or an absence of technological or other solutions (UNDP 2006; UNESCO 2019). By governance we mean the policies, institutions, rules, processes, and practices which articulate interests, take decisions, regulate human behaviour, and exercise power. In the water sector, these make up the systems that determine who received water and sanitation services, when, how, and why. Our second proposition is that stronger accountability leads to better governance and can prevent or resolve service delivery failures on water.

Formal accountability is defined here as the ability to review, explain, and report performance against rules, responsibilities, and obligations, and to react constructively to improve performance through sanctions, incentives, or corrective measures. We also incorporate informal accountability, 'socially shared rules that are

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[1] The Accountability for Water consortium includes End Water Poverty, the Institute of Development Studies (IDS), Kenya Water and Sanitation Network, Oxfam, Partnership for African Social and Governance Research (PASGR), Shahidi wa Maji, WaterAid, Water Integrity Network (WIN), Water Witness and is funded by the William and Flora Hewlett Foundation.

[2] See Ernstorfer and Stockmayer (2009) for a discussion.

created, communicated and enforced outside official channels' (Helmke & Levitsky 2004). Advocacy was included in this review because it is often joined with accountability interventions, particularly where formal opportunities for accountability are weak, or where a need for systemic change is identified. We use a simple definition of advocacy as 'the organised attempt to change policy, practice and attitudes by presenting evidence and arguments for how and why change is needed' (Open Societies Foundation 2010, p. 3). Advocacy more broadly understood encompasses a far wider range of definitions and contexts, and this review was limited to where advocacy is for, or combined with, accountability. A typology of accountability interventions was used to organise the evidence into four categories: social accountability, whereby community members are mobilised to call duty-bearers to account; budget analysis, whereby non-governmental organisations (NGOs) or other bodies review budget and/or spending as a means of claiming accountability; evidence-based advocacy, whereby individuals or groups gather evidence of service failures or unmet needs and use this to lobby, either directly or using media or other means; and finally statutory accountability, using formal processes such as ombudsmen, complaint mechanisms, or public-interest litigation to claim accountability.

Accountability and advocacy interventions have secured positive results, in terms of government responsiveness, policy change, and inclusion of marginalised communities in decision making, but important knowledge gaps and unanswered questions persist (Hepworth 2016; Farrow 2018). These centre on the contextual and design factors which determine why, when, and how accountability and advocacy interventions deliver positive impacts, and who benefits. Practitioners need to understand the factors that determine the performance of accountability interventions, particularly their benefits for marginalised people. Better characterising and understanding these factors will support the practice and policy community to design, deliver, support, and resource future interventions that maximise positive impact in multiple settings. This review responds to the knowledge needs of local and global stakeholders in government, utilities, regulators, communities, civil society organisations, international non-governmental organisations (INGOs), and bilateral and multilateral donors. Since 2016, through global[3] and regional meetings,[4] over 500 practitioners and decision-makers have shared insights and reflected on the bottlenecks and priority knowledge gaps which hold back accountability for water.

The need to better understand the determinants of success for accountability interventions is reflected in academic literature and meta-evaluations from beyond the water sector. For example, McGee & Gaventa (2011, p. 12) conclude that 'under some conditions, some TAIs (transparency and accountability initiatives) create opportunities for citizens and states to interact constructively, contributing to … better budget utilisation, improved service delivery, greater state responsiveness, the creation of spaces for citizen engagement and the empowerment of local voices.' This review investigates what those conditions are. Similarly, ITAD's (2016, p. 1) review for the UK Department for International Development (DFID) found that 'accountability processes almost always lead to better services, accessibility and staff attendance' but need to be adaptive and responsive to different contexts to get results. Fox (2015, p356) found potential in strategic approaches to accountability where a conducive, enabling environment[5] requires institutions and authorities to listen, removes the perceived risks and costs of speaking up, and emboldens people to exercise voice and urgency. This in turn triggers reform and encourages further engagement. However, the dynamics that drive this cycle are poorly understood, and research and theory lag well behind practice. It is these challenges, and this 'lag' that this evidence review addresses. This review presents and analyses the current evidence on accountability. The analysis shows the factors that determine whether accountability interventions contribute to positive outcomes and impacts. It also highlights where additional research is needed.

Purpose, scope, and objectives

The review aims to help researchers, practitioners, and policymakers who together comprise the community of practice across the water and sanitation sectors to access, interpret, and use the current evidence relating to accountability for water and sanitation services. Our scope is inclusive of rural and urban water, sanitation,

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[3] Including Stockholm Water Week (2016, 2017, 2018, 2019), the Global Partnership for Social Accountability (GPSA) Forum (2017, 2019), the International Water Association Congress (2019), the Accountability for Water Thinkshop (2018).

[4] Ethiopia (2019), Kenya (2019), Tajikistan (2017), Tanzania (2018, 2019) and Zambia (2017, 2020)

[5] Fox (ibid.) recognises that term is rarely defined with precision and proposes that in the context of accountability interventions, it refers to actions by external allies which (a) reduce the actual and perceived risks and costs inherent in taking action and (b) bolster the actual and perceived efficacy of taking action by increasing the likelihood and/or degree of positive institutional response.

and hygiene (WASH), WRM, including flood and drought risk and agricultural water management (AWM). This reflects the highly interdependent nature of different water uses. To ensure that we capture the full range of potential evidence, studies, and literature on WASH from different parts of the world and at any scale of intervention have been included. This review provides an objective analysis of the state of the literature, a guide to its key insights and the knowledge gaps which persist. We map the extent and nature of the evidence by country and region, by intervention type, by sub-sector focus, by outcomes and impacts discussed, and the 'factors' which influence these. Simple descriptive statistics are used to organise the evidence by the outcomes and factors observed. These are then organised into An Accountability for Water – Theory of Change (ToC) (see Figure 5).[6]

The review identifies and draws on available knowledge to populate, test, critique, and validate the ToC, which can then be used as a strategic resource for research, policy, and practice on the topic. In particular, we aim to understand the 'missing middle' of the ToC, the factors that explain why accountability and advocacy interventions, do, or do not deliver desirable outcomes and impact. The ToC is central to our approach and frames the literature of interest. This analysis uses inductive 'open' coding of the available literature to identify key factors and processes that either support or undermine successful achievement of outcomes or impact through accountability interventions.

In summary, the objectives for undertaking this review are fourfold:

- To map and review current knowledge relating to the question:
  What evidence is available on the outcomes of accountability and advocacy in the water sector and the factors which determine their impact?
- To draw on the available evidence to populate and develop a ToC which helps to explain the outcomes and impacts of accountability and advocacy interventions.
- To support a comprehensive knowledge platform that can be used by the community of practice, policy, and research to strengthen accountability in the water sector.
- To validate and guide future research by setting out the extent of contemporary knowledge, contested areas, case studies, concepts and theories for testing and further development, available methodologies and centres of research expertise.

METHODOLOGY

Our approach draws on rapid evidence review, systematic review, and theory-based review methodologies (Shadish & Myers 2004; Hammerstrøm *et al.* 2010; Higgins & Green 2011; Snilstveit *et al.* 2012; EPPI 2019). The latter are particularly useful for mapping causal links and factors which influence outcomes. The rigour of systematic review was adopted within the search, screening, and data-extraction stages, with a more flexible approach taken within the synthesis stage, which allowed us to present formative evidence in accessible and useful ways to the end user. The results describe the current literature on the topic, and the discussions, associations, and insights within it.

The steps involved to ensure a comprehensive, replicable, and valid review that avoids bias are set out here, with supplementary material available in the appendices.

Question formulation

The following review question was developed with support from the review advisory group (Appendix 2):

What evidence is available on the outcomes of accountability and advocacy in the water sector, and the factors which determine their impact?

The review provides a comprehensive search, collation, organisation, and synthesis of the available evidence, documented in peer-reviewed academic journal papers, book chapters, organisational and grey literature, in response to this question. The definitions of terms used in the question are presented in Appendix 3.

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[6] Theory of Change (ToC) is a specific type of methodology for planning, participation, and evaluation that is used in companies, philanthropy, not-for-profit, and government sectors to promote social change. ToC defines long-term goals and then maps backward to identify necessary preconditions. This ToC was developed through an iterative process comprising review of the literature, focussed through detailed and in depth engagement with key sector actors and validated by an iterative consultation process that captured the voices of a diverse group.

Search strategy

The pool of potentially relevant articles was found by searching:

- Academic databases, specifically: Web of Knowledge; SCOPUS; Econ Lit; and, Science Direct, using the following Boolean search string developed and tested through steps set out in Appendix 4.
  - *Water AND (Accountability* OR Advocacy OR Accountability Monitoring OR Social Accountability Monitoring) AND (Governance OR Service)*
- Specific journals, namely the *Journal of Development Studies* and *Water Alternatives*.
- Google and Google Scholar for unpublished material and grey literature with the first 50 hits checked with further examination if highly relevant studies are found.
- Websites of 72 relevant organisations, networks, and initiatives identified by the review advisors.
- Direct requests to sector experts: additional materials were obtained following consultations with review advisors, a process that generated a set of papers used to check whether the automated literature searches are returning the most relevant papers.

The definitions of terms used in the question are presented in Appendix 3.

Inclusion criteria and screening

Identified titles and abstracts were downloaded for review and were assessed for relevance and inclusion using a two-stage process, first by reviewing the title and abstract, and, for those selected, via full text screening. Multiple reviewers worked on this process (and subsequent coding) and to support a consistent approach, training, coaching, and internal checks were provided against the inclusion or exclusion criteria set out in Table 1. Lead reviewers audited a 10% random sub-sample of title and abstracts, then 10% of full texts to ensure consistency. Where inconsistencies were found, these were discussed to support unambiguous interpretation and application of the criteria. A full list of articles excluded at full text screening can be provided along with reasons for exclusion. All included papers were used in the coding exercise.

Data coding, extraction, and analysis

For each of the included studies, key characteristics were coded to support mapping and review. Standardised coding was supported by EPPI Reviewer software and data extracted to an Excel spreadsheet for analysis. The following information in relation to each paper was coded for.

- Full bibliographical reference/citation
- Year of publication
- URL link
- Publication type (peer review journal article, conference/working paper/book chapter/organisational report, or evaluation)
- Sub-sectoral focus (WRM, urban or rural WASH, AWM)
- Methodology (qualitative/quantitative)
- Geography – country of study
- Type of advocacy/accountability intervention (social accountability monitoring, budgets, etc. with sub-category)
- Outcomes and impacts associated with intervention and nature of effect
- Factors discussed and nature of effect (see Annex 5 for the Factors Codebook – developed iteratively based on the reviewed papers).

Included papers were mapped geographically and simple statistical analysis undertaken to describe the available evidence. Data on the nature of outcomes, impacts, and determinants of performance have been used to populate the ToC. The frequency with which each is discussed alongside the nature of effect was also analysed with the findings represented graphically.

LIMITATIONS OF THE REVIEW

The key limitations of the review are set out below:

- *Only English language literature since 1999.* The language skills and time available meant that we limited to the literatures that were written in English since 1999. The search therefore potentially misses valuable work published in non-English languages or in the last century.

Table 1 | Inclusion and exclusion criteria

Question element	Description	Criteria
Population	Scale	We are interested in accountability and advocacy mechanisms that are applied to improve water services and governance for any human population. We are interested in accountability and advocacy mechanisms that are applied to improve WRM or WASH services and governance at any scale (household/community/municipality/basin/region/country). To prevent exclusion of potentially relevant data, scale will not be used as an exclusion criterion.

Interventions		Interventions will be grouped into four categories as set out in the ToC:
		
		1. Social accountability monitoring and initiatives
		  (a) Citizen report cards
		  (b) Social audit
		  (c) Rights activation
		  (d) Community scorecards
		  (e) Participatory situation analysis
		  (f) Strengthening citizen voice
		2. Budget analysis, tracking, and reporting
		  (a) Public expenditure tracking surveys
		  (b) Participatory budget processes
		  (c) Participatory budget analysis and expenditure review
		3. Evidenced-based advocacy
		  (a) Research and analysis
		  (b) Freedom of information campaigns
		  (c) Media campaigns
		  (d) Lobbying
		  (e) Public hearings, debate, and dialogue processes
		  (f) Integrity audits
		4. Statutory accountability mechanisms
		  (a) Public complaint and grievance mechanisms
		  (b) Citizen oversight panels
		  (c) Formal audit and disclosure
		  (d) Ombudsmen services
		  (e) Customer service charters
		  (f) Public interest litigation
		
		An additional category of 'other' was included to avoid exclusion of articles considered relevant but not captured by the above terms.

Outcome	Qualitative and quantitative measures of outcomes traced to advocacy and accountability mechanisms	To be included, studies and literature must link interventions to outcomes of relevance for improved water services and WRM. These are organised and defined as follows:
		1. Changes in WRM/WASH services (aligned with JMP/WHO indicators of interest – See Annex 3 for definitions):
		  (a) Availability
		  (b) Accessibility
		  (c) Quality
		  (d) Affordability
		  (e) Acceptability
		  (f) Sustainability
		  (g) Hygiene
		  (h) Equity
		2. Improved WRM/WASH governance (see OECD indicators in Annex 3) via existence/implementation/functioning of:
		  (a) Roles and responsibilities
		  (b) Appropriate scale
		  (c) Policy coherence
		  (d) Capacity
		  (e) Data and information
		  (f) Financing
		  (g) Regulatory frameworks
		  (h) Innovative governance
		  (i) Integrity and transparency
		  (j) Stakeholder engagement

(*Continued.*)

Table 1 | Continued

Question element	Description	Criteria
		(k) Trade-offs across users and generations
		(l) Monitoring and evaluation
		3. Water security defined as the reliable availability of an acceptable quantity and quality of water for production, livelihoods, health and ecosystems, coupled with an acceptable level of risk from hazards including droughts, floods, pollution and conflicts.

- *Absence of full quality and validity assessment.* Our scoping work revealed a low number of highly rigorous studies. Had we applied strict quality criteria then the final sample would have been very limited in size and scope. To capture the maximum breadth of useful material, a proxy measure of the quality and replicability of studies was used, which was to exclude studies which provided no methodological description.
- *Preferential reporting of successful interventions.* A potential bias is the tendency for preferential reporting of successful interventions, particularly in the grey, institutional literature. To counter this we included the requirement for studies to link interventions to measurable outcomes and impacts as an inclusion criterion.
- *Restricted access to some literature.* We identified some literature which merited inclusion based on the abstract, or information available, but which was inaccessible as full text (e.g. prohibitively expensive, or not accessible through the research portals available to us.)

RESULTS AND DISCUSSION

The results of the review are presented in three sub-sections. First, we set out the state and nature of the literature, its distribution, and focus. Second, we provide the insights and evidence the literature provides about outcomes and determinants of performance. Finally, we conclude by populating the ToC.

Initial search identified 7,424 potentially relevant papers and reports. Out of these, 372 were duplicates and were thus dropped. 6,430 further papers were excluded because they were not in English, were written before 1999, or did not concern interventions in the water sector which linked interventions of interest to outcomes. 622 papers remained. Of these, 471 did not provide a description of methods used. In total, 2% of the original sample met our inclusion criteria. These 151 papers were kept for data extraction, mapping, and analysis. The majority (62%) of selected publications are peer-reviewed journals followed by organisational reports and evaluations (20%), and smaller numbers of working papers, book chapters, and conference papers. A full list of included references is provided in Appendix 6, and is available as a searchable database on www.accountability-forwater.org.

The geographical distribution of the evidence found is uneven (see Figure 1). Evidence identified is clustered in particular regions while others were under-represented, particularly West Asia, Eastern Europe, Middle East and North Africa (MENA), and Central Africa. Sub-Saharan Africa accounted for the largest share of the available literature (41%), followed by East Asia and Pacific (17%), South Asia (15%), Latin America and the Caribbean (10%), Europe and Central Asia (10%), and North America (5%).

Within these regions, evidence is not spread evenly, with a small set of countries accounting for most papers. For example, India was the geographical focus for over 40% of literature from the South Asian region, and just three countries, Kenya, Tanzania, and Uganda, together accounted for over 40% of studies in Sub-Saharan Africa. While this can be explained in part by the scale and severity of water issues in these countries, it also suggests a pattern in the way accountability interventions and research are targeted and resourced. Some countries or regions may be overlooked or excluded, and the resultant global knowledge base skewed towards a narrow set of contexts. Examining the reasons for this was beyond the scope of this review.

Analysing the evidence by sector shows it is heavily skewed towards WASH and water service delivery (62%), and within this primarily drinking water. Only six of the papers reviewed dealt exclusively with sanitation and hygiene, with a further 20 including substantive discussion of sanitation and hygiene alongside drinking water. Fewer papers examine water resources (32%) or AWM (5%). This might be explained by the larger number of donor commissioned reports and assessments in the grey literature that evaluate the outcomes of WASH accountability or advocacy interventions. The lack of research on accountability for AWM and water resources is
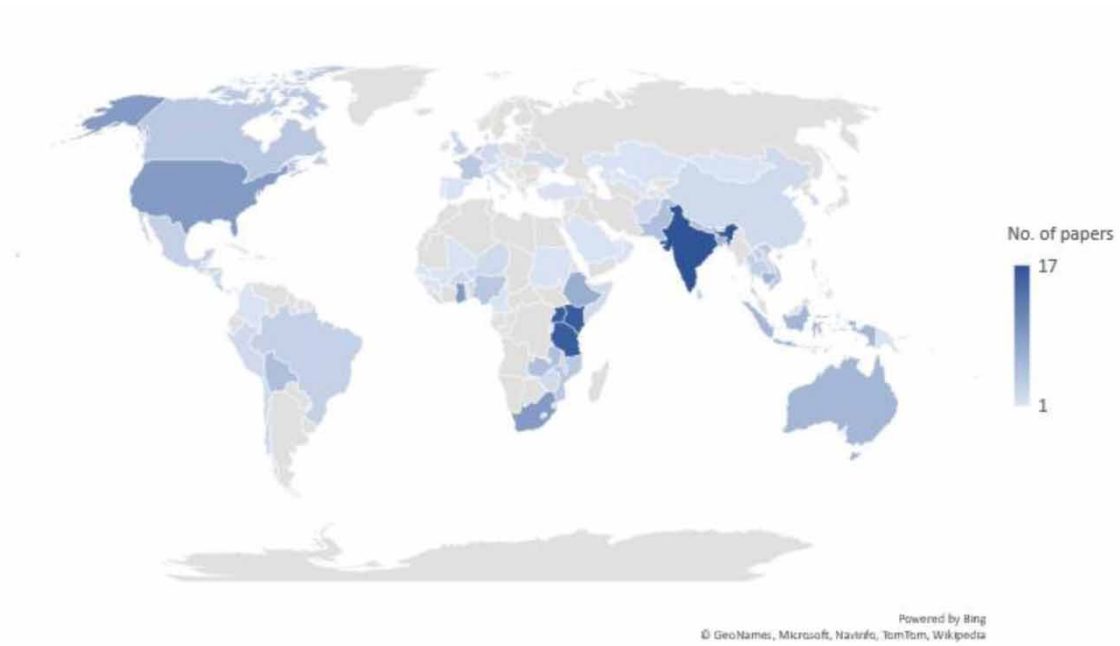
Figure 1 | Global distribution of the literature identified by the review indicating number of papers per country.

important, given the essential roles of agriculture and domestic supply on the sustainability of the underlying water resource.

Figure 2 shows the distribution of intervention types studied within all articles, grouped into the following four main intervention types: (1) social accountability monitoring; (2) budget analysis, tracking and reporting; (3) evidence-based advocacy; and (4) statutory accountability mechanisms. Social accountability monitoring initiatives are reported on most often, and feature in over half of the papers reviewed. Within these, strengthening of citizen voice was the most common intervention sub-type (43% of cases), followed by participatory situation
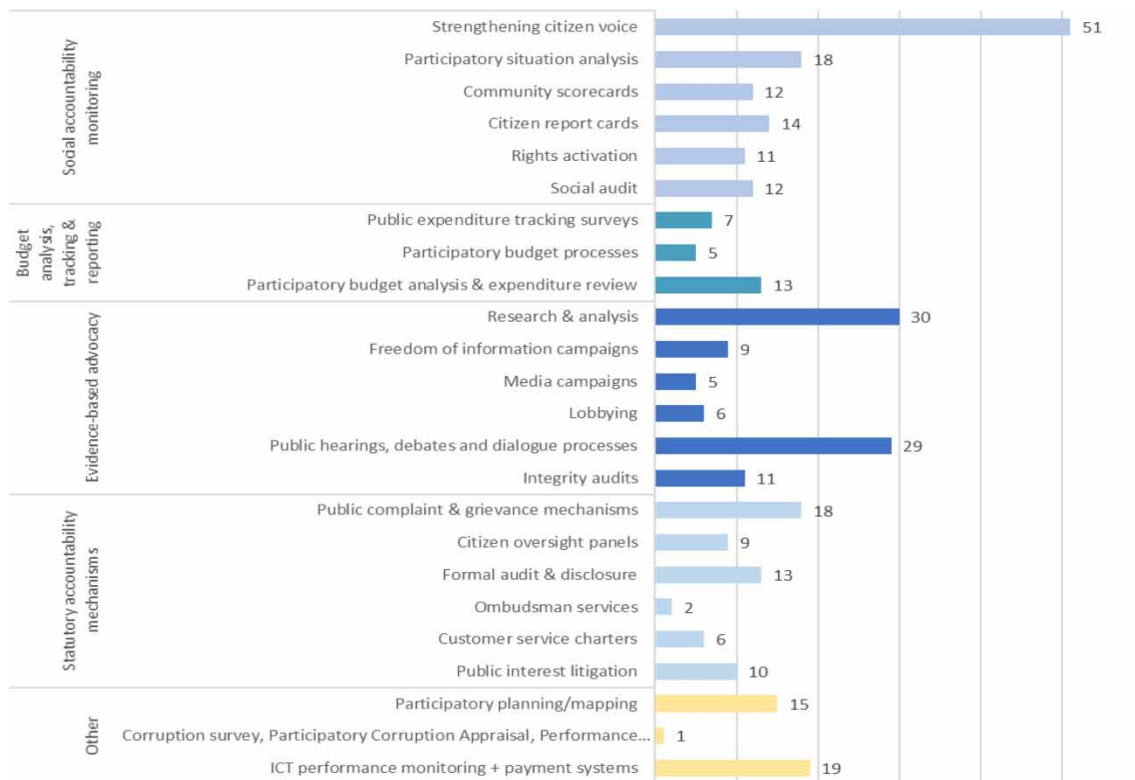

Figure 2 | Intervention sub-types examined in the literature, showing number of articles featuring each.

analysis (15%), citizen report cards (12%), community scorecards and social audits (10% each), and rights activation (9%). These findings reflect a predominant interest in participatory, community-based accountability mechanisms, and forms of collective action to amplify common grievances. Some patterns emerge in terms of the way interventions link to sub-sectors, for example, report cards, scorecards and social audits are more commonly applied to WASH, while others, such as community mapping, are more commonly associated with WRM.

Evidence-based advocacy features in 44% of the papers. Within this subset, the most frequent approaches examined are research and analysis (33%), followed by public hearings, debate and dialogue processes (32%), integrity audits (12%), freedom of information campaigns (10%), lobbying (7%), and media campaigns (6%).

Statutory accountability mechanisms feature in 28% of the papers. Within this, public complaint and grievance mechanisms featured in 31% of papers, followed by formal audit and disclosure (22%), public-interest litigation (17%), citizen oversight panels, where citizens have a formal role overseeing service providers (16%), customer service charters (10%), and ombudsman services (3%).

Budget analysis, tracking and reporting are the focus in 11% of papers. Just over half of these concern participatory budget analysis and expenditure review (52%), a little over one quarter deal with public expenditure tracking surveys (PETS) (28%), and a fifth with participatory budget processes (20%).

Other interventions featured in 16% of papers. Within this subset, a majority looked at Information, and Communications Technology (ICT)-based monitoring and payment systems (54%), with a smaller number examining participatory planning and mapping (43%), and a single paper each addressing corruption surveys, participatory corruption appraisal, and performance benchmarking.

What does the evidence tell us?

This section presents the associations made in the literature between interventions, outcomes and impacts. It does not weight or critique the evidence, so 'more evidence' does not necessarily mean 'better evidence' or stronger causation. Comparisons between interventions represent differences in the evidence, not necessarily differences in efficacy.

80% of the articles reviewed associate positive change for water governance at outcome level with accountability and advocacy interventions. Positive change at impact level is less frequently reported, in three out of ten articles. Illustrative case studies from the included literature which demonstrate these are set out in Appendix 8.

The evidence associates accountability and advocacy interventions with positive change across a range of important outcomes for improved water governance and services (see Figure 3). The outcomes most frequently associated with interventions are improved operational maintenance, monitoring and reporting (featuring in 40 papers), followed by access to data and information, representation and inclusion, and political recognition and will. The frequency and nature of change reported in the literature is presented in Figure 3 which indicates where the literature claims a positive effect, where no effect or a negative effect was observed, where a mixed effect was reported, or where insufficient data were presented to determine the nature of the effect.

A wide range of impacts are associated with accountability and advocacy interventions although the linkages and effects are not as well articulated in the literature as they are for outcomes, perhaps because they are harder to measure. The greater focus on WASH interventions in the literature corresponds to higher numbers of articles with associated WASH impacts. There were more studies on WASH-focused interventions that reported on impact than there were in other sub-sectors. Changes in accessibility were discussed most frequently, followed by impacts on quality, availability, equity, sustainability and affordability. Across all impacts, precise data to validate and demonstrate claims was often lacking. For example, our coding identified impact claims across many of these variables, but the code 'insufficient data' shows cases where an impact is mentioned but not measured in the paper. Interventions on water resources are most frequently associated with impacts on sustainable use, followed by conflicts, pollution, floods and droughts, these too were limited by inadequacy of data. There are few studies on flood and drought impacts.

Factors associated with the performance of accountability and advocacy interventions

Our coding of the literature reveals 28 factors associated with the performance of accountability and advocacy interventions, with multiple factors mentioned in most accounts reviewed. For readability, the factors are listed as enabling, but in each case the reverse is a disabling factor and both positive and negative examples were coded together. Factors including a constructive approach (37), training, human resource availability and professionalism (28), leadership and champions (28), taking a strategic approach (27), good public
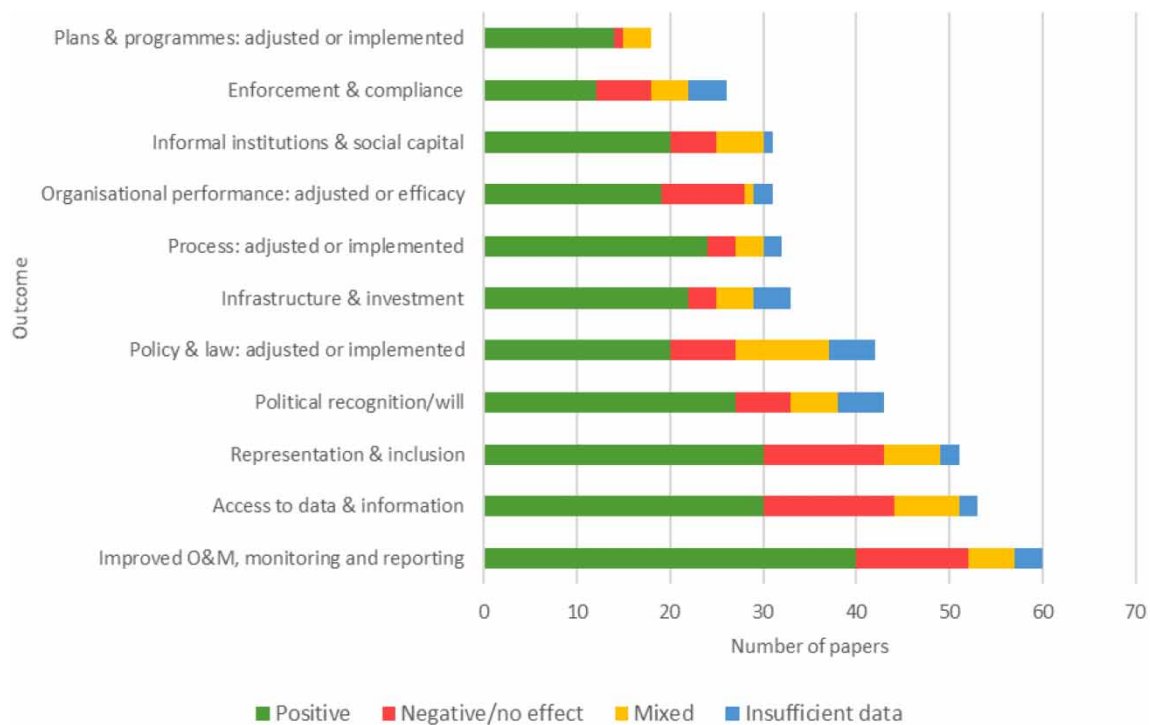
Figure 3 | Outcomes associated with accountability and advocacy interventions in the water sector: frequency in the literature and nature of effect.

communications (23), dialogue and convening (23) and trust and legitimacy (21) are most frequently associated with positive outcomes. A poor understanding of community and power dynamics (28), ambiguous institutional responsibilities (17), weak inter-agency accountability (17), a challenging water use context (17), limited financial resources (16), and trust and legitimacy (15) are factors most frequently associated with negative or no outcomes. Full explanations of these factors are provided in the codebook in Appendix 5.

To address the complexity of these multiple factors and to make the data accessible, we have classified and grouped these factors.[7] Our typology draws on foundational analysis of water institutions by Saleth & Dinar (2005) which characterises factors that influence performance as being either endogenous (internal) or exogenous (external) in origin. The factors are therefore grouped into three groups:

- 'internal' factors – those that are to do with intervention design and implementation, or internal organisational dynamics of implementing agencies such as its longevity, training and skills, or gender sensitivity. They can be directly controlled or are controllable by the practitioners and decision-makers.
- 'external' factors – those that are to do with the context in which the intervention takes place. For example, the level of government capacity, or literacy rates in the population. These are beyond the direct reach or influence of the intervention designer, decision maker or practitioner.
- 'interface' factors – those that are to do with how internal and external factors interact or are managed. In these cases there is some capacity to manage or control the factor through careful attention to the external context and appropriate intervention design.

This typology can be used to organise the literature and its insights for further development. The results of applying this typology to the literature are presented in Figure 4. Internal (Figure 4a), external (Figure 4b), and interface factors (4c), have been ranked based on the frequency cited in the literature, together with an indication of the nature of the effect reported.

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[7] The approach draws on the concept of 'locus of causality', borrowed from the field of psychology where it is a dimension used in attribution theory that relates to the perception of the cause of success or failure. The locus of causality may be internal (i.e. based on the one's own characteristics, such as ability or effort) or external (i.e. due to factors such as luck, outside the control of the individual).

The factors are described in more detail in the factor code book in Appendix 5, together with examples from the literature. Internal factors are more often associated with positive influence on outcomes than are external and interface factors, which are more often associated with a negative influence on outcomes. The online dataset (www.accountabilityforwater.org) allows practitioners to cross reference intervention types with factors, to improve and focus detailed planning.

Developing the ToC

The coding of the literature presented above was used to redevelop a ToC for accountability and advocacy interventions on WRM and WASH. An outline ToC was used to develop the evidence review strategy, but this outline was found to have a 'missing middle' – the factors that determine the success or failure of interventions. Analysis of the evidence entailed coding papers according to their main findings. This enabled the 'missing middle' to be populated with the internal, interface and external factors driving success or failure. Figure 5 presents the ToC, with interventions, and their associated outcomes and factors set out from left to right based on the frequency with which they appear in the literature. The figure presents a multi-pathway process from the core issue – lack of water security and human rights to water and sanitation, through various accountability interventions that are mediated by internal, interface and external factors. The influence of these factors affects whether an outcome occurs, and, in turn, an impact on WRM or WASH.

This ToC presents a conceptual framework that can support analysis, prior to intervention design, of which factors are most likely to be influential in success or failure. Tools such as bottleneck analysis or political economy analysis can be used to investigate which factors to prioritise and adjustments to make to the intervention design. Ultimately, this means adjusting internal factors (i.e. those within the control of the intervention design and delivery) to mitigate for interface and external factors. This may explain why internal factors are more often found to be associated with positive outcomes, while external factors are more often associated with negative outcomes (Figure 4(a) and 4(b)).

Implications for policy and practice

Given the scale of the global water crisis and the central role of water security for social and economic progress, the available evidence of 151 papers is modest in size and limited in coverage. India, Tanzania, Kenya, and Uganda account for almost half (45%) of all literature on the topic, but even here, there are fewer than 20 papers focused on each country.[8] The topical and thematic range of the evidence is also limited. Thematic areas that are infrequently mentioned, but critical for global and local water security, climate resilience and sustainable development include: AWM, pollution control, climate change related impacts such as droughts and flooding, and the relevance of gender. The depth of the literature is also limited, with few papers that provide detail on the material, long-term impacts of interventions as compared to shorter-term outcomes.

The majority of evidence comes from academic research, with three times as many accounts (92) drawn from journal articles than organisational reports and evaluations (30). These figures suggest that NGOs and the practitioners of accountability and advocacy have little capacity for, or are placing little priority on evaluating, learning from and sharing the results of their work.

This review identifies a challenge for policymakers and practitioners interested in stimulating stronger accountability for improved water governance. While there are numerous case studies of interventions driving positive change, our current knowledge about what works, why, and for whom is limited. Although important and useful insights are available, as presented above, the evidence is insufficient for detailed conclusions about causation that can safely be transferred between contexts. The results of the review lend support to those seeking to improve governance and service delivery in the water sector. The evidence suggests that accountability and advocacy interventions have an overwhelmingly positive influence. In eight out of ten included accounts, interventions are associated with positive change in outcomes including: operation, maintenance and monitoring; data availability; representation; political will; investment; policy; law; processes; organisational performance; social capital; enforcement and compliance; programmes; and plans. The potential for harnessing these interventions to accelerate delivery of the SDGs is therefore apparent. By strengthening accountability

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[8] Detailed findings from East Africa are discussed in country-level evidence summaries in Brown *et al.* 2021 – available on the Accountability for Water website: www.accountabilityforwater.org.

Figure 4 | Factors influencing accountability and advocacy interventions. Frequency of discussion and nature of effect: (a) internal factors; (b) external factors; and (c) interface factors.

processes, a positive feedback loop is created in the governance system, increasing the incentive and the ability of duty-bearers to deliver progressive realisation of human rights.

Positive impacts are anticipated in all the included papers, but detailed accounts of positive impact through material changes in parameters such as water access, quality, availability, affordability, sustainable use, levels of pollution, conflict, droughts, and flooding are limited to only one in three papers. This means that better
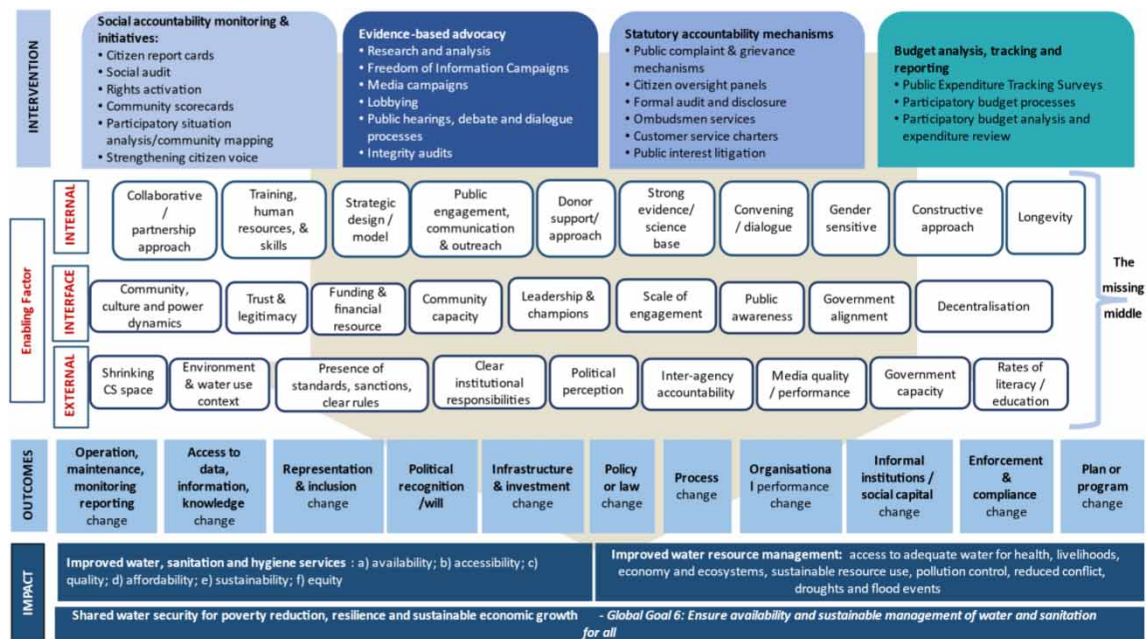
Figure 5 | Accountability for Water – ToC.

reporting and research on impacts remains a challenge. Further development and investment in accountability and advocacy interventions is a worthwhile endeavour for those seeking better water governance and water services and should be pursued as a priority.

How practitioners can use the evidence

The evidence presented highlights the range of factors which can influence the success of accountability interventions. The diversity of socio-economic, political, cultural, and environmental contexts that accountability interventions must respond to means that optimal design and delivery of interventions should be based on local situation and political economy analysis. A key value of this review is to highlight factors to be examined as part of such analysis. Important determinants of performance, either positive or negative, can then be understood at the outset and harnessed for positive influence, or mitigated against where they act as a constraint.

The internal factors mapped by the review are within the direct control of the practitioner or decision maker and can be shaped towards optimal design and delivery. Key internal factors identified were: investing in human resources, skills and training; strategic designs; a collaborative versus disruptive approach; the influence of donor support; convening and dialogue; foregrounding gender issues; generating strong evidence; public communications; and longevity and tenacity of engagement.

Interface factors such as poor understanding of community and power dynamics, and the recruitment of strong leadership and champions appear to be particularly important. Interface factors are partially within the purview and influence of the practitioner, providing that adequate groundwork is done to understand and respond to them. For example, the literature suggests that understanding community dynamics and champions, levels of trust and legitimacy, the financing context, levels of community awareness and interest, and alignment with government systems are important, and that each require consideration.

External factors provide a menu of the contextual challenges which enable or disable positive outcomes, and again they warrant careful consideration and response. They include issues such as absence or ambiguity of rules and statutory responsibilities; limited government capacity; prevailing political perceptions; restrictions on civil society and freedoms, levels of literacy and media performance. Their identification can improve the risk management and mitigation strategies for accountability programmes and planning. Improved understanding of how these structural or systemic issues influence accountability and advocacy interventions will aid their successful navigation.

In some instances, factors labelled as external may be malleable to positive action by sector actors. For example, government or other influential stakeholders can shape the wider landscape for accountability by initiating or funding reform processes which establish new standards or systems, which shape capacity and inter-

agency accountability, or which resolve ambiguous or overlapping statutory responsibilities. This latter factor emerges across the literature as an important barrier to stronger accountability. In this way the review identifies issues for additional focus, action and advocacy.

This review offers utility and support to the policymaker and practitioner in multiple ways. It offers collated evidence on topics ranging from the roles of donor support and government capacity in effective accountability, to the relative performance of constructive versus disruptive engagement. It can be used to review the performance of specific interventions and factors associated with them, to inform planning. The factor 'checklist', the populated ToC and associated knowledge products are intended to support and guide more effective policy and practice in future. Rich and relevant insights are therefore available through deeper analysis of subsets of the literature. For the senior civil servant it points to the opportunities for reform and modified governance processes, for the civil society protagonist it supports design and practice guidance, and for the external support agent and donor it flags issues for reflection, development and investment. All the originally included references and further analysis are available through interrogation of the Accountability for Water Knowledge Platform. The platform provides an interactive hub through which to search and browse the available data, disaggregating literature by region, intervention type, factor, or outcome.

Implications for research

In characterising the existing spread and focus of knowledge on the topic we reveal its relatively limited geographical and thematic coverage. Coding of the available literature has enabled the identification of common themes, outcomes, factors and associations between them. This invites further conceptual and theoretical development and new research to explore causality and priorities within different contexts. By organising the current evidence base and presenting a ToC the review provides a resource to aid and stimulate future inquiry. We also bring together knowledge about suitable methods and approaches for research into these issues.

The review highlights priority knowledge gaps facing water and development stakeholders. A range of gaps and issues for further investigation emerge, reflecting the methodological and conceptual heterogeneity that was a feature of the evidence reviewed:

- Extending the geographical coverage beyond the small number of core countries highlighted, and developing a better understanding of community and government dynamics and the enabling environment.
- Examining the performance and role of accountability for water in agriculture, ecosystem protection and in the management and mitigation of climate impacts including drought and flood events.
- Unpicking the gender dynamics and social equity dimensions of accountability and advocacy.
- Evaluating the performance and outcomes of budget analysis and tracking.
- Clarifying the potential interplay between the media and public awareness.

Exploring these themes in greater depth will support more effective design and strategic support and resourcing for interventions. However, this is not a straightforward exercise and will require focused research effort over extended timescales, and comparative contexts. Long-term engagement is one of the factors associated with efficacy in the literature, and this should be reflected in research design. The ToC provides an initial framework for testing the relationships, assumptions and causality, and invites critical reflection to strengthen this initial framework.

CONCLUSIONS

The identification and organisation of global literature on the outcomes of accountability and advocacy interventions on water, and the factors which influence their performance, is a significant undertaking. By screening the initial dataset from 7,424 to the final 151 included papers, and subsequent coding and synthesis, this exercise sets out the current, English-language knowledge base on the topic.

Describing the evidence geographically, topically and thematically will help researchers and practitioners make sense of this field of work and take it forward. It confirms that the pool of knowledge is formative and emphasises the value of future collaboration between researchers, practitioners and policymakers, particularly given the importance of improved water governance and water service delivery.

The analysis finds that in eight out of 10 available studies, accountability and advocacy interventions are associated with positive outcomes for water governance, but that positive impacts on the ground are reported less frequently. We identify 28 factors which help explain the performance of accountability interventions, and

organise them in terms of the frequency with which they appear, and within a typology based on their origin: internal to the intervention, external, within the wider context of its delivery, or at the interface between the two.

We develop a ToC for further elaboration and testing. The review is supplemented by an interactive Knowledge Platform: a searchable database of the collated evidence has been produced to support and supplement future work.[9] In reviewing current knowledge and organising it for further interrogation and use, this work contributes towards strengthening of accountability for water – to unlock a fairer water future for all.

While there is some literature on accountability for WASH it is under-represented. Perhaps, one of the reasons for this is that sanitation and hygiene have less of a political profile and priority compared to water. Given that public health gains depend on all elements of WASH, this is an area that demands greater efforts for research and development in the sector. Donors could also direct their attention to this area, which is often viewed as an individual or community concern, failing to recognise the need for systemic accountability and fundamental obligations of duty bearers. In the same vein, agricultural use of water is not adequately covered by the global water sector accountability and advocacy literature. Climate change impacts and the need to grow more food in the future, and manage water resources across the demands of drinking water, agriculture and production make strengthening accountability for this a high priority.

Recommendations

- The available evidence base should be deepened and widened through a learning-focused approach within future interventions. Decision-makers and practitioners should proceed with caution when designing and delivering interventions. Collaboration with researchers to ensure rigorous knowledge is generated across appropriate timescales should be embedded. While eight in ten interventions with accountability and advocacy components reveal positive water sector outcomes, further research is in order, to establish if all the positive relations are causative or non-causative. This could be context specific so that such and related considerations need to be factored in while designing and executing accountability and advocacy research in this regard. Better understanding of this causation is also likely to require a comparative and quasi-experimental research design.
- Further development and investment in accountability and evidence-based advocacy interventions is a worthwhile endeavor for those seeking better water governance and water services and should be pursued as a priority.
- The evidence review and knowledge platform can be drawn on as a 'one stop shop' for evidence relating to accountability and advocacy interventions and their ToC. Insights provided can be drawn on by all stakeholders to improve the design and delivery of accountability and advocacy interventions. Factors identified as influencing the way interventions perform can be used as a checklist for improvement, as the basis for risk management or to target collective action to understand and address strategic and systemic barriers to change. The reference material and deeper analysis provided on an array of topics and issues, should be drawn and added to through further exploration via the Accountability for Water Knowledge Platform.
- Additional research, and monitoring and evaluation effort is needed to extend the geographical and thematic coverage, and to deepen the global knowledge base on accountability for water. Priority needs to be given to testing the relationships and addressing the knowledge gaps identified by this review to enable the policy and practice community to better harness, deploy, and realise the benefits of stronger accountability for water. Opportunities to resource and undertake collaborative research between practitioners and researchers over timescales of an appropriate length to trace interventions to impact are a priority.
- The 28 factors we identified are likely to interact to a different degree in response to differing contexts. The degree of their interaction is also likely to affect their outcomes, be it in the positive or negative. Future research could focus on establishing more understanding about which factors are more important in what context and how and what could be done to augment their positive accountability and advocacy impacts. Taking note of these factors, we develop a ToC for further elaboration and testing.
- The review is supplemented by an interactive Knowledge Platform: a searchable database of the collated evidence has been produced to support and supplement future work.[10] In reviewing current knowledge and organising it for further interrogation and use, this work contributes towards strengthening of accountability for water – to unlock a fairer water future for all.

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[9] Available at https://www.accountabilityforwater.org/knowledge-hub-overview.

[10] Available at https://www.accountabilityforwater.org/knowledge-hub-overview.

- Two specific factors, 'longevity' (i.e. sustained engagement over a long period) and 'trust and legitimacy' (i.e. being perceived as an authentic and legitimate agent to demand accountability) both suggest that the broader goals of 'decolonising' research and aid, ensuring funding reaches local organisations who are empowered to lead programme development, will also improve accountability outcomes.

DATA AVAILABILITY STATEMENT

All relevant data are included in the paper or its Supplementary Information.

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