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Gender equality approaches in water, sanitation, and hygiene programs: Towards gender-transformative practice

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The recent (re-)emergence of gender-transformative approaches in the development sector has focused on transforming the gender norms, dynamics, and structures which perpetuate inequalities. Yet, the application of gender-transformative approaches within water, sanitation, and hygiene (WASH) programing remains nascent as compared with other sectors. Adopting a feminist sensemaking approach drawing on literature and practice, this inquiry sought to document and critically reflect on the conceptualization and innovation of gender-transformative thinking in the Australian Government's Water for Women Fund. Through three sensemaking workshops and associated analysis, participants developed a conceptual framework and set of illustrative case examples to support WASH practitioners to integrate strengthened gender-transformative practice. The multi-layered framework contains varied entry points to support multi-disciplinary WASH teams integrating gender equality, as skills and resources permit. Initiatives can be categorized as insensitive, sensitive, responsive or transformative, and prompted by five common motivators (welfare, efficiency, equity, empowerment, and transformative requality). The framework has at its foundation two diverging tendencies: toward instrumental gender potential and toward transformative gender potential. The article draws on historical and recent WASH literature to illustrate the conceptual framework in relation to: (i) community mobilization, (ii) governance, service provision, and oversight, and (iii) enterprise development. The illustrative examples provide practical guidance for WASH practitioners integrating gendered thinking into programs, projects, and policies. We offer a working definition for gender-transformative WASH and reflect on how the acknowledgment, consideration, and transformation of gender inequalities can lead to simultaneously strengthened WASH outcomes and improved gender equality.

KEYWORDS

gender-transformative, gender-transformation, WASH (water, sanitation, and hygiene), social transformations, gender equality, feminism, gender-transformative WASH, gender-transformative approach

Introduction

Gendered thinking in the water, sanitation, and hygiene (WASH) sector was initially prompted in the 1970's during an overlap of the International Decade for Women and the International Decade for Water and Sanitation (1975 to 1981). Yet four decades on, transformative models of gender equality for WASH policies, programs, and projects are only recently emerging (Sinharoy and Caruso, 2019; MacArthur et al., 2022a). Notably, the sector's historical focus on infrastructure, has been less concerned with social gender issues (Fisher et al., 2017; Sweetman and Medland, 2017). Additionally, WASH has been associated with historically male dominated disciplines such as public health, engineering, and management (Udas and Zwarteveen, 2010; Willetts et al., 2010; Zwarteveen, 2010; Alda-Vidal et al., 2017; World Bank, 2019) and hence the sector has been slow to adopt concepts such as equality and diversity (Cavill et al., 2020; Worsham et al., 2021).

The perspective that gender equality can contribute to a range of development outcomes *and* be an outcome of development interventions itself is articulated as a gender-transformative approach (Kabeer, 1994). In other terms, gender-transformative initiatives aim to transform relational, collective, and structural gender inequalities alongside and through other development interventions (MacArthur et al., 2020, 2022a). A gender-transformative approach is characterized by: (1) starting from a purposefully transformative agenda (*why*); (2) engaging with structural systems and not the symptoms of inequality (*where*); (3) maintaining a focus on strategic gender interests (*what*); (4) recognizing and valuing diverse identities (*who*); and (5) adopting transformative methodological approaches (*how*) (MacArthur et al., 2022a). However, in contrast to development sectors such as health and food systems, gender-transformative thinking is nascent and unclarified in the WASH sector (MacArthur et al., 2022a).

As seen in the "pioneering" emergence of gender-transformative approaches in food systems initiatives (AAS, 2012; McDougall et al., 2021), the uptake of transformative thinking required a concerted effort by practitioners to address the lack of sectoral progress on gender equality. The process involved building coalitions between practitioners, academics, and donors for the "conceptualization and innovation" of gender-transformative approaches (McDougall et al., 2021, p. 3). The gender-transformative food systems coalitions intentionally sought to adapt learnings from reproductive health programming, defining tailored frameworks, language, and areas of focus (McDougall et al., 2021). Like food systems, the WASH sector has seen slow progress in addressing gender inequalities (Sinharoy and Caruso, 2019). As such, a concerted effort to adapt and adopt a gender-transformative approach to WASH was promoted in the Water for Women Fund (2018–2022). Funded by the Australian Government, the Water for Women Fund sought to promote the development of coalitions and innovations in gender-transformative approaches through socially inclusive and sustainable WASH projects and research in 15 countries in Asia and the Pacific. Notably, the Water for Women Fund actively looked beyond a gender-binary and adopted concepts of intersectionality to more holistically address gender and social inequalities (Water for Women, 2019b).

Drawing on existing published experiences and three summative sensemaking workshops with six academics and leaders from the Water for Women Fund, this inquiry had two objectives. Firstly, to document and critically reflect on the conceptualization and innovation of gender-transformative thinking in the Water for Women Fund. Secondly, to identify a conceptual framework and set of illustrative case examples to support future WASH practitioners in adopting a more gender-transformative approach. A third emergent outcome was the critical interrogation of the common frameworks used in other gender-transformative initiatives—gender-integration continuums.

The article begins by introducing several connection points between gender equality and WASH, providing definitions related to gender and development, and clarifying two conceptual models which have been used to classify and describe different forms of gender-integration in development programming. Following this, we describe the inquiry's approach, which comprised of three sensemaking workshops drawing on existing published cases and the experiences of the Australian government's Water for Women Fund. The results section begins with the introduction of a framework of gender-integration suitable for the WASH sector. Next, the study illustrates the framework's application in three types of WASH activities: (1) community mobilization, (2) governance, service provision and oversight, and (3) enterprise development. In the discussion, framed by six characteristics of a gender-transformative approach (MacArthur et al., 2022a), the paper provides key considerations for WASH programs interested in adopting gender-transformative perspectives. Finally, the article reflects on future research needs before offering concluding remarks.

Background

Reasons for integrating gender equality in WASH initiatives

Existing literature has identified several philosophical, cultural, biological, and programmatic reasons to integrate WASH and gender equality. First, WASH is important to the full enjoyment of life for all; including women, girls and those who have been historically marginalized. Global mandates including the Sustainable Development Goals (SGDs) and the recognition of the human right to water and sanitation highlight the importance of WASH for the full enjoyment of life (Singh et al., 2008; JMP, 2021). Second, WASH activities in the home and community are strongly gendered. In many cultures, women and girls are traditionally responsible for household WASH, yet men are responsible for water management in the public arena (White et al., 1972; Elmendorf and Isely, 1981; van Wijk-Sijbesma, 1985). Third, improvements in WASH are often not equitable. Women, girls, and the socially marginalized have been the least likely to benefit from improvements in WASH (van Wijk-Sijbesma, 1998; Fisher et al., 2017). Fourth, not everyone has the same WASH-related biological needs. For example, women and girls face unique WASH challenges during pregnancy, lactation, menstruation, and menopause (Hulland et al., 2015; Sahoo et al., 2015; Baker et al.,

2017). Sexual and gender minorities also have specific needs, though these are often overlooked (Boyce et al., 2018). Fifth, the integration of gender equality into WASH policies and programs can lead to improved WASH outcomes (Taukobong et al., 2016). The active engagement of women and the socially marginalized, has been shown to lead to improved efficiency, sustainability, and effectiveness of WASH systems (Van Wijk-Sijbesma, 1987; Mommen et al., 2017). This said, some authors have noted that these interventions must be careful to avoid exploitative approaches which do not foster agency (Cornwall, 2001; Cavill and Huggett, 2020). Lastly, and often overlooked in the WASH sector, improvements in WASH can (but are not guaranteed to) foster improved gender equality and social inclusion outcomes (Ivens, 2008; Willetts et al., 2010; Gender and Development Network, 2016)—this perspective is key to gender-transformative modalities of WASH.

Gender equality terms and definitions

A gender-transformative perspective of WASH necessitates a clear foundational articulation of gendered concepts grounded in feminist development (Kabeer, 1994; Cornwall and Rivas, 2015). Firstly, the term gender. This paper defines *gender* as the socially constructed structures and dynamics which govern a society's perspectives of masculinity and femininity (Butler, 1999). Gender is one category of intersectional historical oppression (Crenshaw, 1989), other categories include: *"race, class…sexuality, gender identity, ethnicity, nation, ability, and age"* (Collins, 2015, p. 2). An intersectional approach therefore considers how categories of historical oppression intersect. As such, while this paper focuses specifically on gender equality, many scholars and practitioners have considered aspects of social inclusion and gender equality jointly. Secondly, this paper conceptualizes *gender equality* as the state of *"equal rights, responsibilities and opportunities of women and men and girls and boys [and individuals of diverse genders]"* (Hannan, 2001, p. 1). Notably, we add the clause related to the inclusion of other genders, recognizing a shift in thinking from binary to diverse genders. Drawing from the Beijing Platform for Action (United Nations, 1995), gender equality is distinct, yet closely linked with women's empowerment and gender equity. We define *gender equity* as *"fairness of treatment…"* [for individuals of all genders] "…*according to their respective needs*" (UNESCO, 2000, p. 5) and *empowerment* as *"the processes by which those who have been denied the ability to make choices acquire such an ability"* (Kabeer, 1999, p. 437). Therefore, the paper conceptualizes gender equality as a transformed status of society, with empowerment and equity as important precursors.

Foundational conceptual models

Although gender-transformative approaches within international development have seen significant resurgence in recent years (MacArthur et al., 2022a), the concepts and perspectives can be traced to the 1990s in the lead up toward the Beijing Platform for Action (United Nations, 1995). At this time, two main conceptual models emerged to help classify and clarify different types of gendered programming (March et al., 1999). Both conceptual models were premised on the idea that gender-transformative programming is best classified in contrast to other less or non-transformative modalities.

TABLE 1 Differing policy approaches to women and development (adapted from Moser, 1993; Coates, 1999).

Approach	Purpose
Welfare (1950s)	Focused on practical gender needs to *"bring women into development as mothers"* as passive beneficiaries (Coates, 1999, p. 6). *"Purely welfare projects are those to deliver information, education and sometimes free handouts (money, food, technology) to poor women in their roles as homemakers, reproducers, and child rearers. Examples are projects in maternal and child health, hygiene, nutrition, home economics, and home-based appropriate technologies."*(Buvinić, 1986, p. 653)
Equity (1960s)	To equitable meet the strategic gender interests of both women and men. Women are seen as active participants in the development process and the approaches challenged women's subordination. Other scholars saw this approach as more instrumental than transformative in practice (Kabeer, 1994)
Anti-poverty (1970s)	To increase women's productivity and income-generation, to meet women's practical needs. Coates (1999) noted that in this approach, poor women were often instrumentally only recognized for their productive roles
Efficiency (1980s)	To promote efficient and effective development programs, to meet women's practical needs. Coates (1999) describes that women are often seen in their capacity to strengthen economic efficacy ("smart economics").
Empowerment (1990s+)	To empower women in greater self-reliance reaching strategic gender interests. This more radical approach aimed to support bottom-up initiatives to overcome oppression.

The first model, articulated by Moser (1993), identified a loose evolution of gender-integrated programs focused on welfare, equity, anti-poverty, efficiency and finally empowerment (Moser, 1993). Table 1 introduces the key definitions of the five program types drawing on Moser (1993, p. 56–57) and Coates (1999, p. 6). Moser's model drew on foundational work by feminist development practitioner Buvinić (1986); who described the "misbehavior" of women-focused development policies which she argued had slipped from opportunities to empower women toward purely practical gender outcomes. While such practical gender outcomes are important for overall health and wellbeing, they are not able to address gender inequalities as strategic gender interests (Buvinić, 1986; Moser, 1993). The framework articulates a series of program motivations and was first adopted in the WASH sector in 1999 by WaterAid (Coates, 1999). Moser herself argues that many approaches were used in parallel and that even in the 1990s, welfare-based approaches were common (Moser, 1993).

The second model, articulated by Kabeer (1994) and Kabeer and Subramanian (1996), identified four types of development programs: gender-blind, gender-neutral, gender-specific and gender-transformative; the latter three types classified as gender-aware (1996) or gender-sensitive (1994). Figure 1 illustrates the framework and provides key definitions for the four classification types.

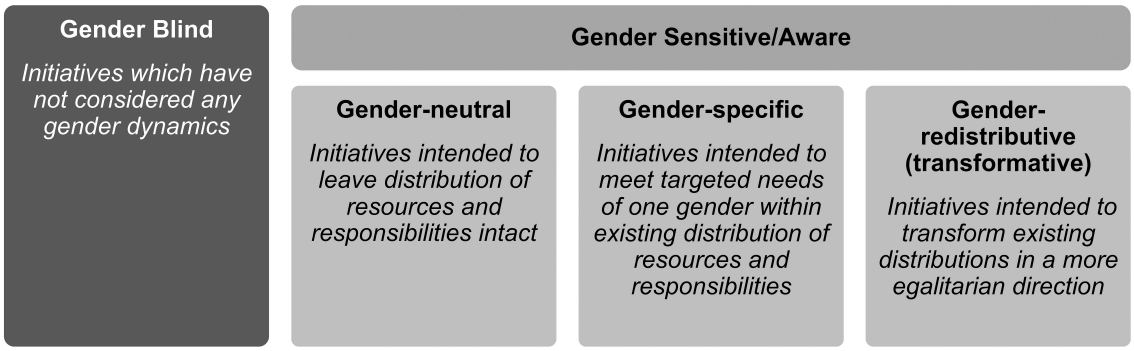

FIGURE 1
Classifications of gender policy, adapted from Kabeer (1994) and Kabeer and Subramanian (1996).

In the 20 years which have followed, the second framework has appeared as a continuum in many forms and in three streams of practice focused on relational health, institutional structures, and sectoral change (MacArthur et al., 2022a). Most notably the continuum has been adapted for relational and reproductive health programming (Gupta, 2001; ICRW and Promundo, 2007; Rottach et al., 2009; WHO, 2011; Pederson et al., 2015), with a few emergent examples in climate programming (Harvey et al., 2019) and WASH (Grant, 2017; Grant et al., 2017; WaterAid, 2017; Water for Women, 2019b). A visual summary of these diverse continuums is provided in Supplementary material. It should be noted that most these examples are found in gray literature and that little has been written to critique and interrogate the conceptualization of the continuum in practice.

Approach

The inquiry utilized a process of feminist sensemaking, building on insights from both literature and practice. The feminist sensemaking approach was selected to solidify and document the lessons and insights of gender-transformative thinking within the Water for Women Fund (2018–2022). Rooted in the constructivist paradigm, feminist sensemaking is a collaborative approach in which targeted discussions are focused on (1) creating sense of a complex topic and (2) constructing "cognitive bridges" through which to communicate and influence policy (Rutledge Shields and Dervin, 1993). Feminist sensemaking can involve structured interviews, focus groups, or workshops, with specific discussion topics and a goal of greater "sense" of the topic. We adopted a workshop format of feminist sensemaking in which the six workshop participants were also the co-authors of this paper and aimed to extend the team's experiences in the Water for Women Fund. The participants included researchers with specialist expertise in the gender-WASH nexus and in the Water for Women Fund (MacArthur, Carrard, Siscawati and Willetts), and Water for Women Fund specialists in gender equality and social inclusion (Mott), and monitoring and evaluation (Raetz). Participants were selected to best maximize the learnings of the fund, while keeping workshop discussions manageable in a short time-period.

As illustrated in Figure 2, the inquiry built on existing literature and practice in the WASH sector through three sensemaking workshops with an overall goal of identifying and interrogating tools and examples to best support WASH practitioners. The 1.5-hour workshops were conducted using Zoom between July and September 2022. Agendas of the three workshops were emergent, yet each workshop had a specific goal as indicated in Figure 2. The lead author prepared brainstorming topics, collaborative templates, and input materials before each workshop. Email discussions continued between the participants between workshops to help clarify ideas and insights. The workshop inputs included gender-integration experiences from other sectors (see Supplementary material), gender-WASH literature (van Wijk-Sijbesma, 1985, 1998; Dery et al., 2019; MacArthur et al., 2020; Caruso et al., 2022; Macura et al., 2023), and Water for Women Fund experiences in the "Toward Transformation" strategy (Water for Women, 2019b). Relevant case examples were documented in an online database (stored in *Airtable*) and referred to throughout the workshops. The workshop outputs included critical reflections, a conceptual framework, and relevant case examples.

The collaborative approach sought to bring each team members' knowledge and experience to bear in pursuit of both scholarly rigor and practical relevance. Each workshop is briefly described below.

The first workshop focused on defining the purpose and value of gender-integration tools and frameworks, critically considering their different forms, applications and limitations based on literature and practice. The discussion relied on examples and frameworks from other sectors (McDougall et al., 2021; MacArthur et al., 2022a) alongside the lessons and insights from the Water for Women Fund. This discussion confirmed our collective perspective that such frameworks offer value in translating concepts into practice, despite limitations associated with their linear presentation and inherently problematic approach to discrete categorization of complex activities. The first workshop produced a set of critical reflections on the common gender-integration frameworks and on the challenges and opportunities of gender-transformative approaches in WASH programming.

The second workshop aimed to codify an appropriate framework for supporting WASH practitioners in integrating a gendered approach. The workshop relied on examples of

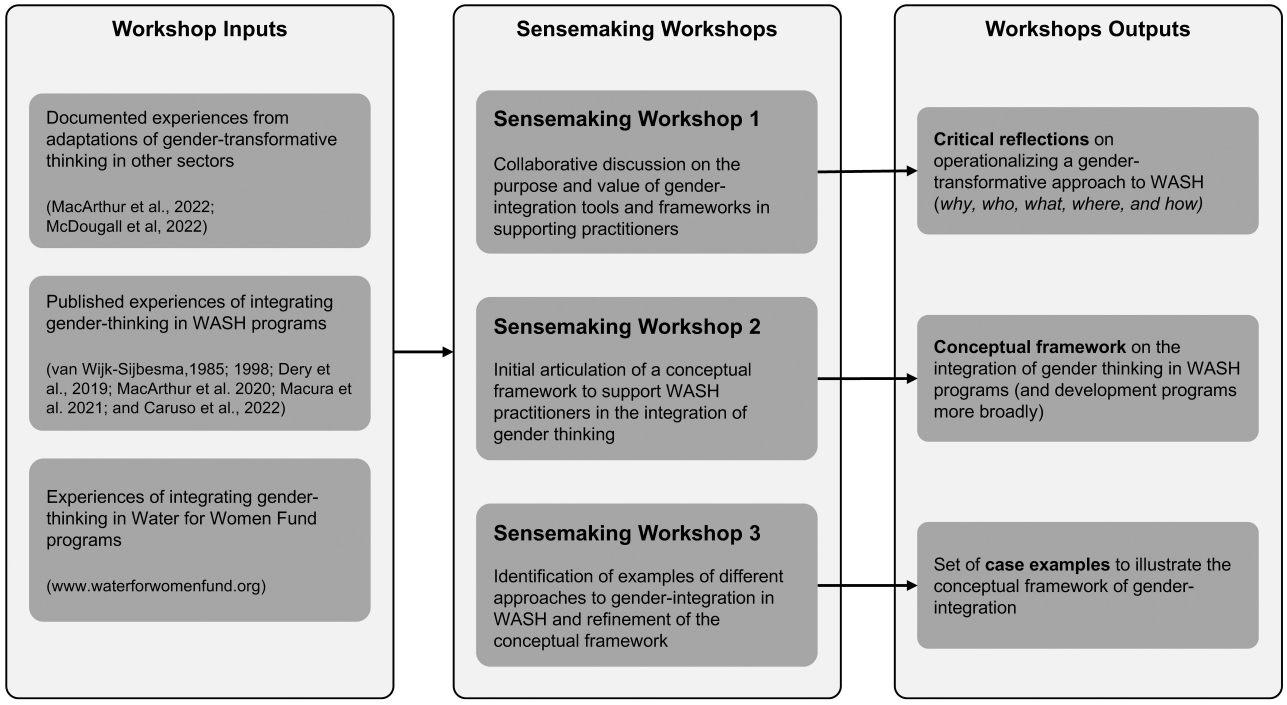

FIGURE 2
Inquiry's feminist sensemaking approach.

gender-integrated WASH programming within to identify framework terminology and design. Notably, this workshop included detailed discussions on the *motivators* that implicitly shape WASH programs and how these *motivators* are closely aligned with typical gender-integration categories. The second workshop produced a working conceptual framework that was then used and refined in the third workshop.

In the third workshop, the team reviewed a pre-developed database of literature case studies and discussed examples from our own experiences to illustrate and refine the proposed gender-integration framework. We sought geographically diverse examples relevant to three WASH program focus areas based on Water for Women Fund initiatives: community mobilization; governance, service delivery, and oversight; and enterprise development. Where examples were lacking in literature, we developed hypothetical scenarios about the ways in which such programs could align with gender integration categories, based on our experiences in the WASH sector. For example, as no published literature case was found on gender-sensitive WASH enterprise development, we discussed and created a hypothetical example supporting women latrine sales agents. Our focus on diversity was intentionally aimed at redressing the dominance of Kenya, India, and Bangladesh in published WASH-gender literature (MacArthur et al., 2020).

This inquiry and its outcomes must be interpreted through its limitations related to the study team, minimal external validation, and complexity in identifying relevant case studies. Firstly, while the study team came from diverse disciplinary backgrounds, the members were all associated with the Water for Women Fund. Additionally, five of the six members were based at Australian institutions. This positionality reduced opportunities to engage with perspectives more broadly and to draw on diverse insights. To mitigate this, the team actively engaged with documented experiences from partner organizations across the Water for Women Fund which covers some 15 countries in Asia and the Pacific, however future research could bring more diverse voices into the study team. Secondly, although this study validated the framework conceptually and through the practical lens of Water for Women Fund experiences, there was not an opportunity to engage external voices in the validation and critique of the framing. The inquiry's team sees the framework as a starting place and welcomes further reflection, critique, and experiences to support future evolution of gender-transformative initiatives in the WASH sector. Lastly, there are few academically published case studies describing WASH program initiatives and outcomes in relation to gender equality. Therefore, the team was required to rely heavily on historical examples (van Wijk-Sijbesma, 1985, 1998), gray literature cases known to the team, and recent gender-WASH literature reviews (van Wijk-Sijbesma, 1985, 1998; Dery et al., 2019; MacArthur et al., 2020; Caruso et al., 2022; Macura et al., 2023). Future work could benefit from a systematic case study review of gender-WASH programming examples from both gray and published literature. Despite these limitations, the goal of this work has been to provide an initial translation of gender-transformative concepts, language, and approaches for a sector slow to address inequalities.

Results

Conceptual framework of gender-integration

The adaptation of existing gender-integration thinking to the WASH-sector led to the development of a three-layered framework

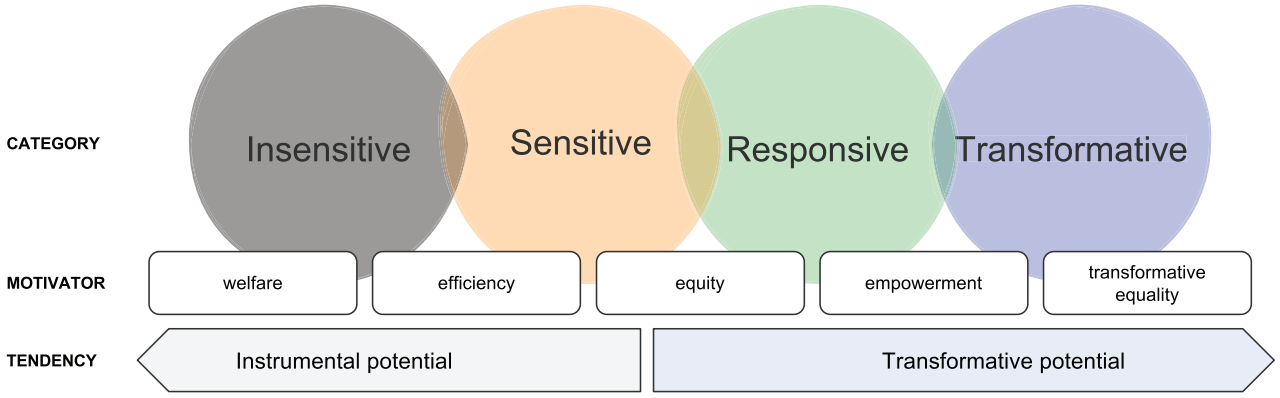

FIGURE 3
Adapted gender-integration framework.

(Figure 3) which includes: four gender-integration *categories*, five *motivators*, and *tendencies* toward instrumental and transformative potential. While the framework was reviewed and interrogated for WASH initiatives, the insights and outputs from the process may have relevance in other sectors. We begin by introducing the framework and its *categories*, then describing the *motivators* and *tendencies*.

The design of the three-layered framework was selected to best support varied entry points for practitioners. Building on previous multi-layered frameworks (Kabeer, 1994; Rottach et al., 2009; Pederson et al., 2015), the sensemaking process clarified the importance of multi-purpose tools that are appropriate for different types of program staff. Where gender specialists are more likely to resonate with the four gender-integration categories due to their alignment with gender theory, program managers and evaluators may more easily make sense of the five motivators (drivers or mechanisms) which distinguish key influences likely to shape program design. The orientation can also help to quickly identify the direction of the program toward either instrumental or transformative objectives.

We acknowledge that a program or policy may not be easily classified into a single category or motivator, since any program or policy may employ more than one strategy, and also because interventions are inherently shaped by implementing staff (including their relative gender-related critical consciousness) and the way in which staff facilitate interventions (Cavill et al., 2020). As such, an intervention that on paper might be classified as one category, might in practice be implemented based on characteristics of another.

Categories of gender-integration in WASH programs

The four categories of gender-integration in WASH programs align with and refine previously developed frameworks of gender-integration for development programming more broadly. They include insensitive, sensitive, responsive, and transformative categories and follow a progression from left-to-right toward higher engagement with gender theory and practice. The categories in the framework were carefully defined and named by reviewing and problematizing existing frameworks and approaches in the first sensemaking workshop. Notably, we drew language from the Canadian International Development Research Centre, which used the terms gender-blind, -sensitive, -responsive, and -transformative (Harvey et al., 2019).

Gender-insensitive approaches **do not consider** any gender dimensions and are sometimes referred to as gender blind, harmful or unaware by other scholars and practitioners (Kabeer, 1994; Rottach et al., 2009; WHO, 2011; Khanna et al., 2016). We purposefully avoid the common term "blind" to be sensitive to individuals with vision impairment. Additionally, we do not label this approach as "harmful" or "exploitative" as these phrases are less approachable as entry points for program teams. This said, we recognize that gender-insensitive approaches often have harmful effects and instrumental tendencies. A gender-insensitive approach is likely to maintain the status quo and perpetuate, if not exacerbate, existing social inequalities (Mott et al., 2021) and they often "foster damaging stereotypes" (Gupta, 2001, p. 10). In WASH, a gender-insensitive approach is often associated with technology transfer programs such as handpump or latrine installations which do not consider gender dynamics (van Wijk-Sijbesma, 1985).

Gender-sensitive approaches **acknowledge** gender dynamics in the development of interventions; however, work within the traditional or existing dynamics and structures of a context. The approach is also referred to as neutral (Kabeer, 1994), aware (Mott et al., 2021), or inclusive (WaterAid, 2017). We adopt a similar framing to Gupta (2001), who defines a gender-sensitive approach with reference to HIV/AIDS interventions as "*programming that recognizes and responds to the differential needs and constraints of individuals based on their gender.*" (p. 9). Similar in content, but with a different label, Kabeer and Subramanian (1996) describe this type of approach as "*gender neutral*" which seeks "*to target the appropriate development actors in order to realize certain pre-determined goals and objectives, but…leave the existing divisions of resources, responsibilities and capabilities intact.*" (p. 10). As such, gender-sensitive approaches often adopt gender-specific modalities, targeting a single gender for program interventions. For example, in WASH this could include conducting gender analysis,

but focusing more on meeting women's practical needs rather than addressing their strategic gender interests.

Gender-responsive approaches **consider** gender dynamics with an intention to empower individuals, but do not aim to remove or address wider structural barriers (Mott et al., 2021). This approach is also known as gender-accommodating or empowering. This concept aligns most closely with Gupta's (2001) final spectrum level "approaches that empower" and WaterAid's "empowering" step toward transformation. This category is often focused on the individual empowerment of a single-gender group of participants. In WASH programs, this includes a focus on meaningful participation, decision-making, and leadership of marginalized groups (Dery et al., 2019).

Lastly, **gender-transformative** approaches **actively seek to transform** the gender norms, structures, and dynamics which perpetuate inequalities within households, communities, and institutions (MacArthur et al., 2022a). Kabeer and Subramanian (1996) describe this form of programming as gender-redistributive seeking to "*transform the existing gender relations in a more egalitarian direction through the redistribution of resources and responsibilities*" (p. 10). Often transformative approaches adopt gender-synchronous strategies—purposefully engaging individuals of different genders both separately and together to address individual, collective, and structural gender interests (Greene and Levack, 2010). Additionally, the transformative approach includes the attention to or even integration of intersecting aspects to accommodate diversities and at the same time addressing plural forms of marginality and marginalization (not only gender-based but also based on class, caste, ethnicity, age, ability, etc.). In WASH, this has included examples such as using water and sanitation monitoring opportunities to transform gender relations (Leahy et al., 2017) or the purposeful engagement of men and boys in menstrual hygiene management (Mahon et al., 2015).

Gender-integration motivators for WASH programs

Building on the four categories of gender-integration to address the workshops revealed difficulties in articulating the differences between the categories, leading to the inclusion of the five motivators (Table 2).

The five proposed motivators (welfare, efficiency, equity, empowerment, and transformative equality) broadly align with Moser's (1993) categories of the evolution of gender programming introduced in this article's background section (welfare, equity, anti-poverty, efficiency, and empowerment). However, we have made four changes to Moser's initial conceptualization.

First, we disconnected the spectrum from an evolutionary timeline (from the 1940s to today). Although, Moser conceptualized that programs have loosely evolved from focusing on welfare (1940s) toward empowerment (1990s), later theorists (see for example Kabeer 1994) have argued that modern programs can also adopt welfare (or efficiency or equity) based approaches. However, we maintain that the motivators build on one another—in that a program motivated by efficiency is also inherently providing welfare, and that a program motivated by equality would also embody aspects of welfare, efficiency, equity, and empowerment.

Second, we merged the anti-poverty motivator from Moser's initial conceptualization with the efficiency and equity motivators. Emerging as a "toned-down version of equity" in the 1970s, the anti-poverty approach focused on ensuring that poor women increased their productivity. In practice today, the anti-poverty approach has been very similar to the efficiency "smart economics" discourse (Cornwall and Brock, 2005; Chant, 2012).

Third, we swapped the locations of equity and efficiency in the spectrum to better align with continuum from practical gender needs (left) toward strategic gender interests (right). Both Moser (1993) and Coates (1999) have argued that an equity based approached was aligned with strategic gender interests, while an efficiency approach has more instrumental tendencies.

Fourth, we added a fifth motivator highlighting the (re)-emerging discourse around gender-transformative development (MacArthur et al., 2022a) The addition of transformative equality adopts the feminist perspective that empowerment has lost its initial potency, focusing exclusively on individual women, and placing the burden of change on women (Batliwala, 2007; MacArthur et al., 2021). Hence the final motivator of transformative equality goes beyond individual empowerment to reflect a transformed society more broadly.

The motivators operate as a parallel spectrum and within our sensemaking workshops, motivators were often identified by the types of outcomes that programs monitored or evaluated. Notably, drawing on the case study examples, the team identified that the motivator of "equity" can have both instrumental and transformative tendencies, while the other motivators were more clearly aligned with one or the other tendency.

Potential tendencies in integrating gender in WASH programs

The two tendencies reflect the inclination or propensity of programs integrating gender-considerations (instrumental and transformative). Programs with instrumental tendencies integrate gender considerations primarily to improve other practical outcomes such as WASH coverage, functionality, use, and sustainability—focused more on practical gender needs. As such, programs with instrumental tendencies are more likely to inadvertently "exploit" women or require women's involvement without clarifying if and how women would like to be involved or will benefit from their involvement (Cornwall, 2001). This may also include inadvertently adding to women's triple burden and being unresponsive to backlash they may experience. Alternatively, transformative WASH programs recognize that improvements in practical WASH outcomes can contribute to improvements in strategic gender interests related to agency, societal norms, and structural changes. Gender-transformative WASH programs also recognize the need to focus on power and norms change more broadly to achieve gender and social equality, often with a focus on intersectionality and do-no-harm.

This dichotomy of instrumental and transformative potential aligns with the distinction between practical gender needs and strategic gender interests (Moser, 1993). However, we adopt the

TABLE 2 Program design motivators and potential (adapted from Moser, 1993; Coates, 1999).

Tendency	Motivator	Description
Instrumental potential	Welfare	Welfare motivated approaches focus primarily on physical health outcomes. For example, welfare focused programs incorporate gendered aspects by measuring gender-disaggregated changes in disease burden.
	Efficiency	Efficiency motivated approaches arise from economic and engineering disciplines and seek ways to create more efficient, functional, and sustainable systems. For example, efficiency focused programs incorporate gendered aspects by engaging women as sales agents or technicians because they are more effective at this role than men.
Transformative potential	Equity	Equity motivated approaches focus on ensuring access to and use of improved facilities and services. For example, equity focused programs incorporate gendered aspects by ensuring equal access and use of improved facilities or gender parity on water user committees.
	Empowerment	Empowerment motivated approaches focus on the individual empowerment of a subset of participants. For example, empowerment focused programs mainstream gender by supporting and encouraging women-entrepreneurs to run water or sanitation businesses.
	Transformative equality	Transformative motivated approaches focus on reshaping the norms, systems and structures which perpetuate inequalities. For example, gender-transformative programs may conduct sessions with households to explore opportunities to rebalance decision-making, roles and responsibilities in the household related to WASH.

word "*potential*" responding to critiques that many outcomes do not neatly align with either practical or strategic interests and ideally should span both as both are interconnected (Kabeer, 1994; Wieringa, 1994). As such, we highlight the potential of programs rather than their specific alignment with practical or strategic interests. For example, handwashing campaigns often adopt "good mums" strategies which have an instrumental tendency in contrast to a gender-transformative tendency which would see hand hygiene as an "*entry point to challenging norms and promoting more equitable sharing of household responsibilities among men and boys*" (Cavill and Huggett, 2020, p. 34).

Illustrative gender-integration case examples

In this section we present the selected intervention examples from literature to illustrate the nuanced differences between gender-insensitive and gender-transformative approaches in WASH. The selected examples represent a small subset of potential examples from literature and practice, noting that many potential examples displayed significant similarities despite being from different decades, countries, and perspectives of gender-integration. We purposely draw heavily on examples from the 1980s and 1990s (van Wijk-Sijbesma, 1985, 1998), to avoid negatively identifying current programs or organizations engaged in WASH sector activities. This use of historical examples additionally highlights that these challenges are not new, but have existed for the last 40 years in the sector. Each section presents examples of the four categories of gender-integration alongside an illustrative discussion of potential activities to guide future practitioners. The three case study topics aim to reflect the breadth of practice within the WASH sector including aspects of: community mobilization, governance, and enterprise development.

Community mobilization

A common tenet of WASH implementation, community mobilization includes activities such as Community Led Total Sanitation (CLTS), Participatory Hygiene and Sanitation Transformation (PHAST), as well as activities to set the foundation for community involvement in water system development. Mobilization or promotion activities involve collaborative processes of critical reflection leading to action. Promoters are often community-leaders and volunteers who advocate for improved water, sanitation, and hygiene within their communities. Such activities are closely linked to processes of action research such as Participatory Rapid Appraisal (PRA) and community health initiatives.

Table 3 summarizes how WASH programs focused on community mobilization can align with the four categories of the gender-integration framework. Illustrative examples are drawn from the Pacific, sub-Saharan Africa, and Southeast Asia with a focus on historical case studies.

Gender-transformative community mobilization in WASH contends that diverse community members are best placed to drive, lead, and sustain change in WASH services. Change is catalyzed in community mobilization through facilitation that aims to transform social norms, stimulating and trigging demand for services. Provision of information leads to greater awareness of health risks and benefits from WASH among community members who interpret and act on information based on gendered norms within their social and cultural context. Community-led total sanitation (CLTS) for instance seeks to change behavior by triggering disgust or shame among community members through a facilitated process and sometimes emphasizes the importance of handwashing after critical times (Kar and Chambers, 2008). Community mobilization can reinforce or challenge social norms to trigger and motivate change, which inherently can reinforce or contest existing gender roles. Intersectional attention to gender and social dimensions (such as gender, class, caste, ethnicity, religion and age) in relation to the diversity of the mobilizers and how and with whom the mobilization process is conducted in the community both affect the extent to which a community mobilization activity in WASH is likely to have transformative potential and achieve transformative outcomes.

WASH governance, service provision, and oversight

Governance of water and sanitation services includes interventions that provide support for different service provision

TABLE 3 Gender-integrated WASH community mobilization approaches.

Category (motivators)	Description	Illustrative example(s)
Gender-insensitive (welfare)	Gender-insensitive mobilization initiatives are not cognizant of gender or social dynamics within communities often leading to stifled outcomes.	**Tonga—Community WASH planning.** *"Local women boycotted a sanitation project when they were excluded wilfully from the discussion of the community survey results and the planning of a village action programme by the men's committee."* (Fanamanu and Vaipulu, 1966 as cited in van Wijk-Sijbesma, 1985, p. 61)
Gender-sensitive (efficiency and equity)	Gender-sensitive mobilization approaches focus on the inclusion of women as mobilizers, yet do not aim to address strategic gender interests such as women's mobility. Such programs may leverage women's traditional advocacy roles as community teachers, health workers and healers.	**Cameroon—Community development workers.** "*In Cameroon, men and women community development workers work on separate programmes. While the women work on community self-improvements, the extension work in connection with piped water supplies is carried out by men promoters only, and not in cooperation with the women's programme."* (Franklin, 1979 as cited in van Wijk-Sijbesma, 1985, p. 113)
Gender-responsive (empowerment)	Gender-responsive mobilization approaches purposefully aim to empower women and other marginalized individuals to become community advocates.	**Guinea Bissau—WASH promoters.** *"The male promoters were taking up their tasks more easily and the female promoters made little progress. Once the female promoters, after many discussions, became more secure in taking up their tasks the male and female promoters became equally effective"*, while the women promoters *"were effective in working with women, they needed special training to communicate with village authorities."* (Visscher, 1982 as cited in van Wijk-Sijbesma, 1985, p. 77)
Gender-transformative (transformative equality)	Gender-transformative forms of community mobilization and seek to transform social norms and structures around the roles and responsibilities of women and men in the fabric of the relevant society.	**Vietnam—Community gender-WASH monitoring.** In this project, a regular monitoring activity was designed for the active exploration of gendered relations through a facilitated community dialogue process to raise community awareness about WASH-related gender roles and relationships and provide opportunities for women and men to *"discuss gender relations, and to set their own agendas for change"* (Leahy et al., 2017)

modalities, including water and sanitation committees, water user associations and direct local government service provision, or may also focus on local government planning, monitoring and oversight as a service authority. Programs supporting these types of initiatives address gender in relation to concepts of leadership, decision-making, participation, and oversight—moving from tokenistic forms of engagement governed by *"patriarchal culture, scepticism and negative stereotypical assumptions"*, (Mandara et al., 2017, p. 116) toward active and informed participation by diverse community members. As most of the informal management and governance engagement in WASH is unpaid, this can potentially lead to women's "*triple burden*" (Moser, 1993). More formal governance roles that are paid are more likely to have more positive outcomes for women, but can also lead to backlash and resistance if perceived as threatening to existing traditions and hierarchy, highlighting the importance of do-no-harm within gender-integrated WASH interventions.

Table 4 provides examples of how WASH programs focused on WASH governance, service provision and oversight can align with the four categories of WASH gender-integration. Once again, illustrative examples are drawn from around the globe including South America, sub-Saharan Africa, South Asia, and the Pacific. The examples include aspects of community handpump oversight, water and sanitation committees, and community management groups.

Gender-transformative governance, service provision, and oversight holds that increased substantive participation of women and marginalized groups in WASH institutions leads to better, more appropriate services for diverse user groups. Substantive participation goes beyond nominal or passive participation towards sustained and active engagement (Das, 2014). Governance involves working within existing institutional structures to create more civic space for women and marginalized groups to engage in decision making on matters that affect their interests (Fauconnier et al., 2018; Imburgia, 2019; Sehring et al., 2022). Support may be provided to address the informal and formal barriers to participation within civic spaces such as committees, forums, platforms or within organizations (Das, 2014). This also requires supporting more diverse governance and leadership at institutional levels to strengthen the linkages between household, community, and institutions (Grant et al., 2021; Worsham et al., 2021; Gonzalez et al., 2022b). For instance, practical strategies such as making meetings more convenient (time and place) may enable women and diverse groups to participate and have a voice in WASH governance processes (Carrard et al., 2013). Civic engagement in WASH governance by diverse user groups can also be a means for advancing strategic gender interests by addressing underlying causes of disadvantage. Ongoing monitoring by users can then in turn reinforce positive feedback loops by emphasizing the accountability of duty bearers for service delivery. By embedding gender relations and interests within institutional structures a gender-transformative governance program assumes that change and the potential for transformation will be enduring.

WASH-related enterprise development

Enterprise development includes a variety of income generation roles in the private sector for women and men within WASH such as technicians, mechanics, sales agents, and entrepreneurs. Sometimes these types of roles overlap with work in WASH committees. In some cases, paid roles have aimed to leverage traditional gendered roles of women and men—such as men as mechanics and women as community health workers, however more transformative examples have aimed to

TABLE 4 Gender-integrated WASH governance, service provision and oversight approaches.

Category (motivators)	Description	Illustrative example(s)
Gender-insensitive (welfare)	Gender-insensitive governance approaches are not cognizant of gender or social dynamics and often only engage with men as traditional leaders.	**Peru—Handpump oversight.** Women were appointed as hand pump overseers without training or orientation. *"The pump was then padlocked, with a third housewife holding the key. This resulted in much intravillage conflict and finally to the breakage and removal of the pump."* (Wellin, 1966 as cited in van Wijk-Sijbesma, 1985, p. 68)
Gender-sensitive (efficiency and equity)	Gender-sensitive governance approaches focus on increasing the participation of women in leadership and committees, often through gender quotas and gender parity. These approaches rely on evidence that the involvement of women can increase the sustainability and performance of water systems (Mommen et al., 2017)	**India—Water Committees.** *"Often these women did not know they were elected* [to water user committees]" (Stanbury, 1984) as cited in van Wijk-Sijbesma, 1985, p. 58) **Kenya—Water Committees**. Although women were less likely to be in governance leadership or contribute time outside of meetings, committee members believed that *"women solve issues and have a cooling effect – they help lead to a consensus among the committee."* (Hannah et al., 2021)
Gender-responsive (empowerment)	Gender-responsive governance approaches purposefully aim to strengthen the empowering participation of women in leadership, technical and decision-making roles. This often requires specialized training in *"leadership skills, confidence building and communication with those they represent"* (van Wijk-Sijbesma, 1985, p. 60)	**Ghana—Handpump Committees.** Specialized women's technical training within committees led to women being "*enlightened and confident that they could detect fraudulent claims by pump mechanics."* (Sam and Todd, 2020, p. 364) **India—Community Water and Sanitation Committees.** Committees were required to be made up of one-third women, which led to changes in women's leadership and social solidarity, yet was restricted by social norms around mobility and gender roles, and led to cases of increased intra-household conflict. (Das, 2014)
Gender-transformative (transformative equality)	Gender-transformative governance approaches aim to transform gender dynamics related to traditional gendered societal roles. Transformative governance support focuses on both women and men and actively confronts norms that are supportive of violence against women.	**Fiji—Community Group.** *"There has been more collaboration amongst people, men and women talk properly together and listen. Men are able to listen to the women more compared to the past … The norm is in a village meeting the men/leaders would speak and tell people what to do – it was one-way communication and decision- making. The [project] helped us to listen together and we started to value the discussion and sharing of ideas before arriving at a decision."* (Willetts et al., 2009, 2013; as cited in Carrard et al., 2013, p. 325)

transform notions of masculine and feminine work, such as men in care work and women in technical roles. Once again, the four types of gender-integration are not mutually exclusive and may be overlapping.

Table 5 provides examples of how programs focused on enterprise development in WASH can align with the four categories of the WASH gender-integration framework. The bulk of potential examples emerge from South America, South Asia and Southeast Asia highlighting the lack of examples of gender-integrated enterprise development in sub-Saharan Africa. The gender-sensitive example is hypothetical and drawn on author's experiences as to not negatively identify any one organization or program. Additionally, these examples are more recent and there is less historical literature to draw on in WASH enterprise development (Gero et al., 2014).

Gender-transformative enterprise development seeks to realize opportunities for women's empowerment by addressing barriers to participation in overall market systems. Women's ability to participate in the economy and public sphere is shaped at multiple levels by domestic, household, community, and institutional norms (Carrard et al., 2013). By addressing these norms systematically women can benefit from participation in WASH enterprises as an entry point for broader change (Grant et al., 2019; Indarti et al., 2019; Soeters et al., 2020). Adopting parallel strategies to engage men and women in WASH enterprise development can support women's participation; for instance, by initiating dialogue on paid and unpaid labor and gender roles (Soeters et al., 2020). Like other strategies the potential for unintended consequences such as backlash must be managed carefully by embedding do-no-harm approaches into enterprise development and working closely and intentionally with women's rightsholder organizations (Water for Women, 2022a). Women's entrepreneurship can also be motivated through financial benefits from business development thus reinforcing the value and transformative potential of WASH enterprises.

Discussion

This paper has documented the results of three sensemaking workshops in the development of a conceptual model and identification of a set of illustrative case studies. The examples of gender-transformative WASH programming noted above and in emerging literature confirm that WASH can provide an entry point for wider gender-transformative change with synergistic benefits to both WASH and societal transformations. Such a gender-transformative approach to WASH provides a framework for leaving no one behind, increasing diversity amongst those overseeing, providing, and benefiting from WASH services whilst concurrently supporting greater gender equality. These examples also offer insight into the complexity of achieving multiple and demanding objectives, particularly in confined program timeframes.

Drawing on the purposed framework and illustrative cases, this article proposes the following working definition: A gender-transformative approach to WASH aims to transform gender norms, structures, and dynamics both within and beyond WASH-related behaviors, activities and services in households, communities, and institutions. As such, gender-transformative

TABLE 5 Gender-integrated WASH-related enterprise development approaches.

Category (motivators)	Description	Illustrative example(s)
Gender-insensitive (welfare)	Gender-insensitive enterprises projects either: (1) engage only with men, because men are the traditional caretakers of technological systems; or (2) uncritically engage with individuals without being cognizant of the gender or social dynamics of paid work in many cultural contexts.	**Nepal—Sanitation and drinking water.** In this project, women were trained on non-technical aspects, while men received technical training. A female participant reflected: *"This is why we have been demotivated to hold any meetings for the last couple of months and to take any initiatives yet to resolve the problem of malfunctioning tube-wells which is increasing over the years"* (Moore et al., 2015)
Gender-sensitive (efficiency and equity)	Gender-sensitive enterprise projects primarily engage only with women with the goal of increasing the effectiveness and equity of enterprise reach.	**South Asia—Last mile service delivery.** This project purposefully recruited women latrine sales agents as they were deemed more effective at delivering sales pitches to rural communities.
Gender-responsive (empowerment)	Gender-responsive enterprises also primarily focus on women, but explicitly aim to address strategic gender interests and empower women. Aspects such as leadership, negotiation, access to finance and business skills are common training foci (Indarti et al., 2019). Other examples include latrine construction masons (Rautanen and Baaniya, 2008), piped water or sanitation entrepreneurs (Gero et al., 2014; Grant et al., 2019), and sales agents (MacArthur, 2018; iDE, 2019).	**Brazil—Cistern builders.** In this project, *"women cistern (rainwater tank) builders benefit[ed] not only from having access to water, but from better sources of income, improved status in the community and inclusion in new networks"* (de Moraes and Rocha, 2013, p. 168).
Gender-transformative (transformative equality)	Gender-transformative enterprises aim to transform gender dynamics related to gender roles and leadership. This approach often adapts parallel strategies to support women and men both separately and together.	**Cambodia—Sanitation marketing.** In this project, husband and wife couples were trained together on business management skills related to running their sanitation enterprises. The team actively avoided the phrase *"entrepreneur's wife"*, instead aiming to see partnership arrangements and recognize overlooked women's work in businesses (iDE, 2020).

WASH pursues gender equality and WASH outcomes simultaneously, in mutually reinforcing ways.

We now discuss key considerations for organizations seeking a gender-transformative approach as critical reflections from the first sensemaking workshop. The considerations align with five framing questions for practitioner teams interested in integrating gender-transformative approaches (MacArthur et al., 2022a): *why, who, what, where* and *how*.

Increasingly research and practical experience points to the importance of self-awareness and organizational culture when grappling with questions for gendered norms and power structures (Cavill et al., 2020). That is, an individual and collective sense of, and commitment to "*why*" a gender-transformative approach is important. Such reflexivity acknowledges that transformation must begin within individuals and adopts a purposeful objective of social and gender-transformations (Heijnen and van Wijk-Sijbesma, 1993; Cavill et al., 2020; MacArthur et al., 2022a). This requires a collective agreement that WASH programming can and should influence gender norms, dynamics, and structures. As such, a foundational step for WASH professionals and organizations is to critically reflect on our own perspectives and practices. Tools such as Water for Women's Gender Equality and Social Inclusion Toward Transformation Self-Assessment Tool (Mott et al., 2021) can support awareness and identify priorities for action in programming and organizational systems. Importantly, transformative programming is difficult to realize without a transformative culture within the organization (Cavill et al., 2020; Water for Women, 2022a). Collaboration with rights holders' organizations can support this kind of transformation, ensuring WASH efforts are informed by lived experience and capacity building on appropriate pathways for change.

Second, a gender-transformative approach requires actively partnering with diverse genders and integrating intersectional perspectives, involving attention to "*who*" is involved. Additionally, a transformative approach actively aims to engage men and boys rather than solely focusing on women (Cavill et al., 2018; MacArthur et al., 2020). The active engagement of gendered or marginalized groups separately and together, is the practice of gender-synchronization (Greene and Levack, 2010). This synchronizing strategy can also be adapted to addressing plural forms of marginality and marginalization from intersecting forms of oppression (Collins, 2015; Soeters et al., 2019).

Next, the focus of gender-transformative WASH—"*what*" to address—must span practical and strategic interests rather than assuming that meeting practical needs is a precursor for engaging with strategic interests. One example is that of gender-based violence. A gender-transformative approach recognizes the social acceptance of gender-based violence as a barrier to societal transformation, and pro-actively plays a role in addressing this while ensuring a do no harm approach. While the WASH sector has historically explored themes of gender-based violence from an infrastructure perspective—ensuring safety and privacy in design—there has been a more recent shift to focusing on shifting attitudes and norms that support gender-based violence (Sommer et al., 2015; Pommells et al., 2018). For example, within the Water for Women Fund, some projects have supported the development and socialization of violence referral pathways in collaboration with rights holder groups through their community WASH activities.

Fourth, it is important to recognize that gender-sensitive, responsive, and transformative approaches are all valuable in the movement toward more equal futures for all. The question of "*where*" an intervention focuses, whether at specific or systemic

level needs to be taken into account. Program teams and designers should be realistic and even cautious in considering the ability for small-scale (or short-term) interventions with limited resources to address systemic changes. Systems change requires approaches that scale up, outm and deep (Water for Women, 2022b). As such different interventions will inherently have different objectives and addressing WASH needs varies in terms of required timeframes and scales. Scaling up aims to impact laws and policies, scaling out aims to replicate and disseminate best practice, and scaling deep aims to impact societal and cultural norms (Moore et al., 2015). In some cases, programs with limited resources and support may be better suited to adopt gender-sensitive solutions avoiding potential backlash and harm. As such, all gender-integrated interventions should articulate and implement a robust do-no-harm approach, which acknowledges that resistance and backlash is inevitable when prevailing power structures are challenged, and works to intentionally mitigate these risks (Water for Women, 2019a).

Finally, gender-transformative approaches require more nuanced and additional funding, planning, and assessment modalities which promote reflective and iterative approaches (MacArthur et al., 2022a), and thus significant attention to the "*how*". This is required for instance, for the intentional, meaningful, and reciprocal engagement with rightsholder organizations to improve WASH and gender equality outcomes as well as ensuring that intersecting marginalizations such as disability, are integrated into gender-transformative approaches. An increased focus on norms changes and addressing power and privilege furthers the importance of iterative and flexible approaches such as action research. Program structures must encourage practitioners to question the status quo and reveal and interrogate unintended negative effects (Water for Women, 2022b).

As a minimum, all programs, no matter whether they aim to be sensitive, responsive, or transformative, require methods to monitor and reflect on the resultant gender and social outcomes, both intended and unintended. Without this, it is not possible to know whether the envisaged outcomes have been achieved or whether adverse outcomes have also occurred. There is an emerging body of literature and tools to support both quantitative and qualitative measurement of gender outcomes associated with WASH programs (Carrard et al., 2013, 2022; Gonzalez et al., 2022a; MacArthur et al., 2022b,c).

Future research priorities

While this article has aimed to introduce gender-transformative WASH into global scholarship and practice, there is still much to be done to refine, expand and clarify the concept and its use by practitioners.

For example, this article has limited its application of the gender-integration framework to three particular program types. Future research could expand the spectrum's applicability to other integral WASH interventions related to menstrual hygiene management and handwashing, which both offer significant entry points to address gender norms (Cavill et al., 2018; Cavill and Huggett, 2020). These areas were included within our initial database, yet we found a lack of documented evidence. As such, these types of WASH activities are underrepresented in our illustrative examples. Further work could beneficially explore how the spectrum can be applied to support menstrual hygiene programs that go beyond gender specific to also being gender-transformative (Mahon et al., 2015; Cavill et al., 2018), and drive handwashing interventions that achieve critical hygiene outcomes while also addressing social norms (Cavill and Huggett, 2020).

Additionally, the reflected framework could be applied and refined in further contexts and sectors with diverse actors and a range of program types. In particular, future work could explore how the framework could be further developed to (1) assess and drive transformative programming, (2) clarify ways to communicate the underlying concepts, (3) promote critical engagement, and (4) identify opportunities to create meaningful translations and visual formats to promote its uptake.

While the framework and examples were focused on highlighting the experience of the Water for Women Fund's adoption of gender-transformative thinking, the critical reflections from the inquiry have relevance and value in other sectors. For example, our problematization of the term "gender-blind" or the recognition that gender neutral interventions have a useful do-no-harm value could be adopted by other practitioners in food security and reproductive health.

Lastly, future work could explore how practitioners engage with and use the framework to strengthen gender-WASH programming and to support potential gender-transformative initiatives. In particular, the research team is curious to understand how the multi-level framing resonates with practitioners from a variety of disciplinary backgrounds and how the motivators and potentials clarify complex gender-terminology for less familiar audiences.

Conclusions

A gender-transformative approach to WASH aims to transform harmful gender dynamics and norms (interpersonal connections and relationships) and structures (societal rules and systems) within, through and alongside WASH interventions. Gender-transformative WASH aims to synergistically both address gender and social inequalities and improve WASH outcomes.

The paper proposed a multi-level gender-integration framework applied to WASH programming -contexts to support practitioners in the thoughtful application of more transformative policies, programs, and projects. The conceptual model defined a gender spectrum in relation to gender-insensitive, gender-sensitive, gender-responsive and gender-transformative types, with relevant motivators and potentials. Using the framework, the paper synthesized experiences from gender-WASH literature and the Water for Women fund through the lens of gender-transformative approaches in international development. Future practice can benefit from applying this framework in the design, implementation, monitoring, and assessment of WASH with a goal of fostering transformative potential.

Data availability statement

The original contributions presented in the study are included in the article/Supplementary material, further inquiries can be directed to the corresponding author.

Author contributions

JMa, NC, and JW: conceptualization. JMa and NC: methodology and writing—original draft preparation. JMa, NC, JMo, SR, MS, and JW: collaborative sensemaking, data curation, and writing—review and editing. All authors contributed to the article and approved the submitted version.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Publisher's note

Supplementary material

The Supplementary Material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/frwa.2023.1090002/full#supplementary-material

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