Guidelines for developing inclusive water, sanitation and hygiene infrastructure

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About the authors

This publication builds on the experience of five organizations working towards inclusive WASH infrastructure development around the world: the United Nations Office for Project Services, the United Nations Children's Fund, the International Labour Organization, WaterAid and Arup.

United Nations Office for Project Services (UNOPS)
www.unops.org

UNOPS provides infrastructure, procurement and project management services to help build the future. UNOPS supports the United Nations in addressing a range of critical humanitarian emergencies, vital development initiatives, and peace and security priorities across more than 80 countries. As an author of this publication, UNOPS champions the provision of quality infrastructure that goes beyond the construction of assets and requires the development of sustainable, resilient and inclusive infrastructure that places the people and planet at the heart of infrastructure decision-making.

United Nations Children's Fund (UNICEF)
www.unicef.org/

Across 190 countries and territories, UNICEF works for every child, everywhere, every day, to build a better world for everyone. Central to UNICEF's mission is to promote the rights of every child. As an author of this publication, UNICEF promotes the human rights to water and sanitation for all with the vision of ensuring that every child has access to and uses safe water, sanitation and hygiene (WASH) services. UNICEF supports all people to claim their right to WASH, helps governments become more responsive to the voices of the marginalized, and builds the capacity of governments to strengthen the enabling environment for WASH service delivery.

International Labour Organization (ILO)
www.ilo.org

For over 50 years, ILO's Employment Intensive Investment Programme (EIIP) has successfully demonstrated in the Global South its unique approach of integrating ILO's decent work principles in its work of supporting the development of inclusive local infrastructure at policy, institutional and implementation levels. With its focus on inclusive poverty reduction and local development in developmental and (post-) conflict or disaster settings, EIIP's socially inclusive, environmentally sustainable, and employment-intensive approaches – along with its emphasis on capacity building at all levels – ensure that investments in WASH infrastructure are inclusive, provide substantial decent local (green) jobs, and are sustainable. As an author of this publication, ILO demonstrates the substantial benefits of integrating socially inclusive, environmentally sustainable, and employment-intensive approaches, with capacity building support. This approach ensures that the benefits of investments in inclusive WASH infrastructure are well targeted, optimized and will last.

WaterAid
www.wateraid.org/uk/about-us

WaterAid is an international not-for-profit organization, determined to make clean water, decent toilets and good hygiene normal for everyone, everywhere within a generation. WaterAid works in 26 countries in Asia and Africa. Our work is supported by offices in the UK, US, Australia, Sweden, Canada, Japan and India. We install clean water systems, train local people to manage and maintain taps and toilets, influence decision-makers to act, and link policymakers with communities and local partners and change attitudes and behaviours. We persuade governments, donors and financial institutions to invest in basic services and rally support from around the world.

Arup
www.arup.com

Arup's mission is encapsulated in our motto: "We Shape a Better World". We are an independent firm of designers, planners, engineers, architects, consultants and technical specialists, working across every aspect of today's built environment. As an author of this publication, Arup calls for inclusive infrastructure as an everyday practice, not just a push-button process. We advocate for bringing diverse needs into projects, and for working as collaborative translators between technical knowledge and lived experience, between a system and its parts, to develop places and experiences that leave no one behind.

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How to use this publication

This publication contains four main chapters. It is recommended that the reader start with Chapters 1 and 2. The reader may then choose to read any subsection in Chapter 3, which contains links to the tools in Chapter 4.

1. Overview of the publication

Accelerating infrastructure development is key to responding to global challenges, but we must ensure that we leave no one behind.

The world is facing grave challenges that place the 2030 Agenda for Sustainable Development in jeopardy. The Sustainable Development Goals Report 2022 finds that the COVID-19 pandemic has wiped out more than four years of progress in poverty eradication, armed conflicts have caused a record 100 million people to be forcibly displaced, and climate change has induced heatwaves, droughts and floods that affect billions of people.

Infrastructure development must be accelerated to respond to these challenges and address development gaps. Infrastructure is a key enabler of sustainable development, as it influences the achievement of up to 92 per cent of the Sustainable Development Goal (SDG) targets.[1] However, there remains a huge gap in infrastructure development worldwide. Before the COVID-19 pandemic, an estimated $97 trillion of global infrastructure investment was needed from 2016 to 2040 to address the SDGs, $7.3 trillion of which was needed for water, sanitation and hygiene (WASH) infrastructure.[2] While the world is slowly recovering from the pandemic, the progress towards filling this infrastructure gap has slowed.

Future infrastructure must be developed through inclusive solutions and encompass more social needs. Much attention has been placed on accelerating climate action and sustainability in infrastructure without due focus on the needs of women and marginalized groups, such as children, youth, older persons, persons with disabilities, lesbian, gay, bisexual, transgender, intersex, queer or questioning, and other gender-diverse people (also known as LGBTIQ+ people), persons living in poverty, indigenous peoples, refugees and internally displaced persons, among others.

The COVID-19 pandemic[3] and the climate crisis[4] have highlighted and exacerbated existing vertical and horizontal inequalities in access to infrastructure, making it clear that we must act urgently to not only fill the global infrastructure gap, but also ensure that we mainstream inclusion alongside sustainability and resilience in infrastructure development, in order to build a sustainable future that leaves no one behind.

Approach of the guidelines

These guidelines promote the development of inclusive WASH infrastructure through a participatory and integrated approach.

This includes three main concepts that underpin the entire publication: leave no one behind (LNOB), meaningful participation, and an integrated approach to quality infrastructure development.

1. Leave no one behind

The LNOB principle is at the heart of the 2030 Agenda and promotes equality, non-discrimination and equity for all peoples, especially highlighted in SDG 5 (Achieve gender equality and empower all women and girls) and SDG 10 (Reduce inequality within and among countries).[5] It places special emphasis on those left furthest behind and the most excluded, such as women and girls, children, youth, older persons, persons with disabilities, LGBTIQ+ people, persons living in poverty, indigenous peoples, refugees and internally displaced persons, and any other group facing social exclusion within specific contexts. Throughout the guidebook, these social groups are referred to collectively by the term 'women and marginalized groups'.

These guidelines recognize that both gender equality and social inclusion are major components of LNOB and that one cannot be achieved without the other. This is reflected throughout the publication through an emphasis

on Gender Equality and Social Inclusion (GESI) transformative approaches, which involve an active attempt to examine, question and change systemic barriers and harmful norms and practices such as taboos surrounding menstruation and disability, which result in intersectional experiences of WASH exclusion.

2. Meaningful participation

Supporting the 2030 Agenda requires a whole-of-government, whole-of-society approach that is truly collaborative and participatory.[6] We need to work together to achieve a cross-cutting, bottom-up and sustainable approach to inclusive WASH infrastructure development.

This publication encourages this firstly through collaborative authorship by international, non-governmental and private sector organizations with diverse perspectives and areas of expertise in WASH infrastructure development. The publication also provides guidelines and recommended actions that focus on enabling the active participation of women and marginalized groups in WASH infrastructure development, beyond consultation. Finally, it promotes collaboration among various actors, such as civil society organizations (CSOs), governments and policymakers, planners, designers, project managers, contractors, procurement officials, operators, asset owners and local communities.

3. An integrated approach to quality infrastructure development

Given the costly nature of infrastructure investment, we need to make sure that we develop quality infrastructure, which can be thought of as the right infrastructure done well at the right time. 'The right infrastructure' is sustainable, resilient and inclusive within its context. Many women and marginalized groups rely on natural resources and are often the most vulnerable to climate change impacts. And so, sustainability and resilience considerations, with a particular focus on the importance of freshwater and watershed conservation, must be integrated into the approach to developing inclusive WASH infrastructure.

An integrated approach also recognizes that infrastructure works in a system-of-systems. This means that WASH infrastructure is enabled by other infrastructure systems such as energy for powering pumping and filtration assets, solid waste management to minimize water pollution, and WASH to and from water collection points and conveying sludge for treatment, among others. In addition, these systems operate through the interaction of elements in the built, natural and enabling environments. For example, reservoirs (built environment) can collect rainwater and water from rivers (natural environment) and are designed based on technical standards (enabling environment).

This publication takes an integrated approach by providing guidelines and recommended actions that consider integrated solutions across the entire life cycle of infrastructure development (which includes the planning, delivery and management of infrastructure). These recommendations can be broadly categorized as solutions towards strengthening the enabling environment, prioritizing inclusive solutions, delivering inclusive solutions well, and maximizing the system performance of existing built assets while linking directly with the natural environment.

Purpose of the publication

The purpose of this publication is to strengthen the capacity of governments, infrastructure practitioners and other actors to implement an inclusive approach to developing water, sanitation and hygiene (WASH) infrastructure in the Global South.

It aims to provide various practitioners and actors within WASH infrastructure development with a starting point to:

- Build their understanding of the root causes of WASH inequalities faced by women and marginalized groups and recognize the opportunity to develop inclusive WASH infrastructure

- Identify inclusive approaches that can be implemented across the life cycle of WASH infrastructure development

- Gain insight into actions that can be taken towards implementing inclusive approaches through various tools and resources

The publication focuses mainly on inclusive WASH infrastructure that supports domestic WASH practices, especially for women and marginalized groups. While there is some discussion about the importance of catchment-scale water resource management and governance in relation to WASH, the publication does not comprehensively address all aspects of water systems such as irrigation, flood prevention, urban drainage and conservation.

As inclusive WASH infrastructure systems should be adapted to the local context and issues, this publication does not provide specific technical solutions for WASH infrastructure implementation but provides recommendations on how to establish inclusive approaches to WASH infrastructure development that address horizontal inequalities in access to WASH, especially for women, children and marginalized groups.

More about the inclusive infrastructure guidance series

This publication is one volume within a series providing guidance on inclusive infrastructure development. Other publications in the series address inclusive WASH, energy, health and education infrastructure.

The guidance series follows on from the UNOPS Inclusive Infrastructure for Climate Action report. The report provides a more detailed picture of the systemic barriers that diverse social groups face and the conceptual framework for the inclusive infrastructure principles.

In parallel and as a synthesis of the series, a Gender Equality and Social Inclusion module is being developed within the UNOPS 'sustainABLE' infrastructure tools suite, which can be used to create a checklist of actions to mainstream inclusion in infrastructure projects.

Figure 1. Summary of the publication's overarching concepts & how these are communicated

Purpose of the guidelines	→	Components of the guidelines		→	Long-term impacts supported by the guidelines

Leave no one behind

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Meaningful participation

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An integrated approach to quality WASH infrastructure

Strengthen the capacity of governments, WASH infrastructure practitioners and other actors to implement an inclusive approach to WASH infrastructure development in the Global South

Introduction to inclusive WASH
Understand the causes of WASH inequalities and recognize opportunities to develop inclusive WASH infrastructure.

Guidelines for developing inclusive WASH
Identify approaches to develop inclusive WASH infrastructure.

Reader's tools
Gain insight into actions to implement inclusive approaches

Persona stories
Stories by fictional characters that support the reader in considering the intersectional experiences of women and marginalized groups in accessing and using WASH.

Guiding questions
Questions and answers that prompt the reader to think about how to address systemic barriers and transform harmful practices in WASH development.

Focus areas
Short narratives presenting concepts that support integrated solutions to sustainability, resilience and inclusion in WASH development.

Key concepts
Sections that present information to help the reader understand a key concept in inclusive WASH.

Actions
Recommended actions that the reader can take to develop inclusive WASH.

Resources
References, case studies and illustrations presenting additional information.

GESI-transformative approaches to infrastructure development that address the root causes of WASH inequalities and transform harmful practices in WASH

Infrastructure that enables provision of inclusive WASH for all (SDG 6), reduces inequalities (SDG 10) and improves gender equality (SDG 5) for social inclusion of women and marginalized groups

Sustainable development that leaves no one behind
The 2030 Agenda for Sustainable Development

2. Introduction to inclusive WASH

The need for inclusive WASH in the Global South

Water, sanitation and hygiene (WASH) is an essential service that provides clean water for human consumption and hygiene practices and a safe means to dispose of human waste. It is necessary for supporting life, improving health, and maintaining safe environments. Safe and consistent WASH practices are essential for preventing and controlling the spread of diarrhoea, acute respiratory infections, soil-transmitted worm infections, and undernutrition.[7]

Goal 6 of the 2030 Agenda for Sustainable Development focuses on ensuring access to water and sanitation for all. Despite significant progress, a large proportion of the global population still lacks access to adequate water and sanitation. In 2022, around 2.2 billion people worldwide did not have access to safely managed drinking water services, 3.5 billion people lacked access to safely managed sanitation services and 2 billion people lacked basic hygiene services.[8] In particular, 70 per cent of households in sub-Saharan Africa lacked access to safely managed drinking water, sanitation and hygiene services.

Aside from issues surrounding the general lack of WASH infrastructure, horizontal inequalities exist in the access of women and marginalized groups to inclusive WASH services. For example:

- In some communities, there may be a belief that persons with disabilities will contaminate water sources, leading to them being shunned or excluded in communal WASH facilities.

- People living in informal settlements may lack documentation or the ability to pay for piped-in water, but relying on informal water provision can be around 10 times more expensive.[9]

- Women, girls, transgender men and non-binary persons who menstruate may lack access to menstrual hygiene materials and a safe and private place to wash and change, due to stigma, discrimination or not being prioritized in household decisions.

These gaps can result in WASH-related exclusion, reinforcing cycles of poverty, inequality and deprivation. Women, children and marginalized groups are disproportionately impacted by a lack of equitable access to water and sanitation, especially in fragile contexts.

- In many communities where water is not piped into homes, women and children are primarily responsible for fetching water from faraway water sources, accounting for around 200 million hours a day being spent on water collection by women and children worldwide.[10] This leads to time poverty for many women and children – they have less time available for productive activities, domestic tasks, leisure, work and education.

- In fragile contexts, lack of equitable access to water can lead to inter- and intra-community conflicts and displacement. The most marginalized people may be forced to engage in transactional sex to pay for water and other basic needs.

- Lack of safe WASH can lead to stunting in children and increased health complications for persons with disabilities and older people. Diarrhoeal diseases are the second leading cause of death in children younger than five years of age worldwide, accounting for approximately 1.7 billion cases and 525,000 deaths each year.[11]

Root causes of horizontal inequalities in WASH access

While general solutions can be applied to address WASH gaps, there is no 'one-size-fits-all' solution to WASH-related exclusion, and it is critical to understand the specific barriers within given contexts. This is because exclusion can result from different context-specific, historical and often interrelated factors that have differential impacts on people.

Systemic barriers to WASH access

Systemic barriers[12] that cause horizontal inequalities in women's and marginalized groups' access to WASH can include:

1. **Discrimination and social exclusion,** where restrictive sociocultural norms and negative attitudes can lead to the exclusion of certain social groups from using WASH services;

2. **Physical barriers and lack of safety,** where using WASH services is physically difficult due to inadequacies in the system (e.g., WASH services are unavailable, unsafe, inaccessible, remote or difficult to use);

3. **Prohibitive costs and requirements,** where the cost (in terms of money, time and effort) or legal requirements can limit people from being able to afford safely managed WASH services;

4. **Limited access to information,** where people do not have access to or are unable to understand the format of information available regarding WASH services; and

5. **Lack of access to decision-making,** where people face power imbalances and lack representation, and thus are unable to make decisions regarding their daily activities or how WASH infrastructure is developed.

Understanding WASH inequality through an intersectional approach

Intersectionality is a concept that recognizes that different aspects of a person's identity (including gender, sex, ethnicity, class, disability and other social factors) can intersect and overlap in both empowering and oppressing ways, depending on the person's surroundings and existing power structures such as patriarchy, ableism, colonialism, aporophobia, homophobia and racism.[13] These power structures can result in systemic barriers to accessing WASH that may lead to further exclusion of women and marginalized groups. Systemic barriers often work in combination and may also be related to inequalities in other infrastructure sectors. These barriers also perpetuate and increase inequality. For example, a person with disabilities may be shunned from public water sources due to discrimination, and the lack of access to clean water can lead to illness and further health complications. This in turn affects educational and employment opportunities and their independence.

While developing inclusive WASH infrastructure, an intersectional perspective is important because it recognizes that exclusion and vulnerability are not caused by a person's identity, but result from and perpetuate overlapping social inequalities and systemic barriers.[14] Conversely, this means that women and marginalized people can be empowered by addressing systemic barriers, a process that is supported by the development of inclusive WASH infrastructure.

> **Reader's tools**
> Focus area on understanding children's need for inclusive WASH

Understanding intersectional WASH exclusion through stories

The following subsection shows some examples of intersectional experiences of WASH inequalities, presented through the stories of five fictional personas which have been developed from datasets and projects that the authors have worked on, and jointly help to reflect the realities women and marginalized groups face around the world. These personas will provide stories throughout the publication to illustrate how systemic barriers to accessing WASH can manifest in relation to the intersectional experiences of diverse groups.

Ram, age 7, school student

"My name is Ram. My mom and I used to sleep under the bridges, but now we have a small house with a roof to protect us from the rain. We don't have a tap or toilet though, so we collect water from the river and use plastic bags as our toilet when it's too late to find a latrine."

Children can be vulnerable to diarrhoeal diseases when they don't have access to safe drinking water, sanitation and handwashing facilities, or when they are not aware of good hygiene practices. This can be even harder for children living in informal settlements, where WASH facilities may be limited. Even when improvements have been made, there can be difficulties maintaining the safety and accessibility of the facilities, for example, when a lack of road access prevents sanitation trucks from emptying cesspits.[15]

Chantha, age 16, high school student

"I am Chantha. I was born with a physical impairment. I can't walk or run in the same way as my friends can. I want to go to high school, but it's not easy for me to go to the toilet they have there. Since starting my period, I've been too embarrassed to ask for help. So I just stay at home during my period."

Persons with disabilities can face a lack of accessibility features to reach, enter, circulate in and use (RECU) WASH facilities, or discrimination from those who believe that persons with disabilities can contaminate water sources. It can be difficult for women and girls with disabilities to manage menstrual hygiene due to a lack of accessible, private places to wash and change, or even because of double discrimination for both menstruation and disability.

Fatima, age 42, farmer
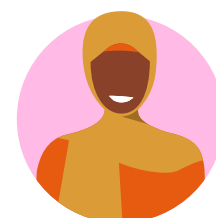
"My name is Fatima. My family and I were forced to leave our village because there were armed groups who attacked people of our faith. It's even harder for me to collect water now that we live in a camp; I don't know many people, so I'm worried about leaving my children, but I can't carry as much water when I have them with me."

Persons can be internally displaced due to conflicts, and members of minority groups can be particularly vulnerable in such situations. Women and girls, displaced or not, often bear the responsibility of collecting water daily, which may lead to injuries or fatigue, especially for pregnant and older women. Women who are displaced may further face the difficult decision of leaving their children alone (and exposing them to the risk of abuse

or violence) or bringing them along on an unsafe route, where sexual or gender-based violence may occur.[16]

Jose, age 28, market vendor

"My name is Jose and I work in a market. There's a small toilet that mainly women use, but since I'm a trans man, some women tell me to go outside like other men. Sometimes, I wait until I get home, but when I'm on my period it's difficult. I need a private place to wash and change but I can't afford to miss work by going home."

LGBTIQ+ people, especially transgender people, can face discrimination when using public WASH facilities. Some choose to "hold it in" until they get home,[17] which can lead to urinary tract infections. However, LGBTIQ+ people who live in poverty may still face the same issues at home if they live in poorer neighbourhoods with shared toilets.

Peter, age 67, indigenous elder

"I am Peter. I used to live with my tribe near the sea, but the water level has risen and my son insisted that I live with him in the city. I've injured myself a few times trying to use the toilet in his house because I'm not familiar with it and my eyesight is not good. So I try not to go to the toilet often."

Older persons may have a harder time adapting to challenges such as climate change, disasters and pandemics due to chronic health conditions caused by old age, prompting them to relocate to places where they can receive more assistance. However, relocation can cause stress for older people as they may have to adjust to adjust to unfamiliar environments,

including WASH facilities that are unfamiliar or are not well suited to support indigenous peoples' cultural practices related to water. This can cause a lack of independence or lead to further health problems if the person cannot properly use the WASH facilities.

> **Read more**
> - Learn more about the diverse experiences of women and marginalized groups in accessing infrastructure: Inclusive infrastructure for climate action, UNOPS, 2022.
>
> - Learn more about understanding and applying the concept of intersectionality: Intersectionality Resource Guide and Toolkit: An Intersectional Approach to Leave No One Behind, United Nations Entity for Gender Equality and the Empowerment of Women (UN Women), 2021.
>
> - Learn more about applying the leave no one behind principle in WASH: Water, Sanitation and Hygiene: A Guidance Note for Leaving No One Behind, UNICEF, 2021.

Characterizing inclusive WASH

Inclusive WASH provides all people (regardless of their personal circumstances or identity) with their human right to safe WASH.[18] This includes healthy, safe, comfortable and equitable access to safely managed water, sanitation and hygiene services and products that uplift quality of life and reduce the risk of health hazards and the social vulnerability of marginalized groups caused by water-related diseases, conflicts and time poverty.

To develop inclusive WASH, it is important to recognize that there are gaps and inequalities related to the design, access and use of WASH infrastructure, and that women and marginalized groups, particularly those who experience multiple and intersecting forms of discrimination, are the least able to benefit. In that sense, inclusive WASH infrastructure is infrastructure that takes into account everyone's diverse needs and addresses systemic barriers to accessing WASH faced by women and marginalized groups. Inclusive WASH provides flexibility, accessibility and adaptability of options to suit diverse needs and contexts, and is able to respond to future needs and challenges. This is particularly important in the climate crisis, as access to water and sanitation becomes increasingly challenging.

Inclusive WASH infrastructure and its transformative outcomes can be characterized by five guiding principles: equitable, accessible, affordable, do-no-harm and empowering.[19] More information can be found on the next page.

Read more

Learn more about how the inclusive infrastructure principles address the systemic barriers women and marginalized groups face: Inclusive infrastructure for climate action, UNOPS, 2022.

Learn more about the key elements of the human rights to water and sanitation: OHCHR and the right to water and sanitation, Office of the United Nations High Commissioner for Human Rights.

Learn more about the criteria for safely managed WASH services through the service ladders established by the World Health Organization/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP):

- Drinking water ladder

- Sanitation ladder

- Hygiene ladder

Learn more about addressing WASH inequalities:

- Reducing Inequalities in Water Supply, Sanitation, and Hygiene in the Era of the Sustainable Development Goals: Synthesis Report of the WASH Poverty Diagnostic Initiative, World Bank Group, 2017.

- Unaffordable and Undrinkable: Rethinking Urban Water Access in the Global South, World Resources Institute Ross Center and UK Aid, 2019.

- Inclusive WASH Activities in the Global South, Guzmán, Nathaly, et al., 2016.

- A Human Rights-Based Approach: A practical guide for the realisation of the human rights to water and sanitation through programming, Human Right 2 Water, 2021.

Reader's tools

Focus area on GESI-transformative approaches

Inclusive WASH principles and transformative outcomes

Inclusive WASH principles, which address diverse needs and systemic barriers			Transformative outcomes of inclusive WASH towards gender equality and social inclusion
Equitable	Provides fair and just access to WASH services that can address the diverse WASH needs of women and marginalized groups		• Diverse needs for WASH are recognized and addressed • Equitable access to culturally acceptable and appropriate WASH for all people • Resources are equitably distributed to ensure availability of sufficient and continuous WASH services for all people
Accessible	Provides user-centric solutions for diverse users to have access to WASH services in an easy, safe and dignified manner, without risk of accident or violence		• Easy, safe and dignified access to and within WASH services for diverse users, so that they can easily reach, enter, circulate in and use WASH facilities • Reduced risk of accidents, harm, crime and gender-based violence in WASH facilities • User-centric WASH services that address diverse physical needs, aligned with the principles of universal design and reasonable accommodation
Affordable	Increases opportunities for people of different economic means to access good quality, sustainable and resilient WASH services		• Reduced financial barriers to WASH access • Low user costs of WASH services • Improved value for money of WASH systems for financial sustainability
Do-no-harm	Reduces the exposure of people and the environment to negative social, economic or physical impacts resulting from WASH infrastructure development		• Nature, lives and livelihoods are protected while developing, operating, accessing, using and maintaining WASH infrastructure • Human rights to safe and clean drinking water and sanitation are safeguarded • Reduced bias and stigma in providing WASH services
Empowering	Increases a person's ability to successfully exercise agency, make informed decisions and act on issues in their community through improved WASH		• Reduced social risk and deprivation stemming from WASH inequality • Participation across all segments in communities is fostered • Informed decision-making of users, including through increased understanding of the benefits of investing in and following safe WASH practices • The right to continuously engage in, agree to, refuse, propose and give feedback on infrastructure projects across the whole project life cycle is enabled • Harmful traditions or beliefs around WASH practices are challenged

Systemic barriers addressed: Discrimination and social exclusion · Physical barriers and lack of safety · Prohibitive costs and requirements · Limited access to information · Lack of access to decision-making

3. Guidelines for developing inclusive WASH infrastructure

Challenges to implementing inclusive WASH infrastructure

The lack of inclusive WASH, especially in the Global South, can be attributed to multifaceted and interrelated challenges in the development of WASH infrastructure. These include, but are not limited to:

- **Insufficient capacity** (including institutional, technical, financial and knowledge) to plan, deliver and manage inclusive WASH infrastructure that:
  - can satisfy short-, medium- and long-term WASH needs of all peoples, especially women and marginalized groups
  - does no harm to the environment and local communities
  - is resilient in the face of challenges such as climate change, conflicts, pandemics and disasters
  - can navigate complex urbanization challenges such as informal developments near water bodies that can contaminate water sources with human waste and garbage
  - is based on inclusive evidence to prevent mismatches and determine appropriate solutions for design, implementation and technology in alignment with local WASH customs and practices

- **Weak enabling environment,** which includes a lack of (or limited ability to enforce) policies, legislation, regulation and formal processes that enable integrated and multi-sectoral approaches to sustainable, resilient and inclusive WASH and effective water resource management, especially in water-scarce countries and contexts where there are water-related conflicts

- **Insufficient awareness of and political commitment to gender equality and social inclusion,** which can lead to a lack of meaningful consultation and representation of women and marginalized groups in WASH planning, delivery and management

- **Cultural and behavioural challenges,** such as traditional beliefs that may hinder users from adopting healthier WASH practices

- **Insufficient accountability and transparency** in WASH investment decisions and procurement processes, which may lead to spatial inequalities regarding where investments are made

Approaches to developing inclusive WASH across the infrastructure life cycle

Addressing WASH exclusion faced by women and marginalized groups requires that we incorporate the concepts of leaving no one behind (through intersectional and GESI-transformative approaches) and meaningful participation within an integrated approach to quality WASH infrastructure development. In addition, addressing the implementation challenges WASH infrastructure practitioners face in the Global South entails taking a holistic approach across the life cycle of inclusive WASH infrastructure development. These guidelines highlight four approaches that incorporate inclusive principles and address implementation challenges:

1. Strengthening the enabling environment,

2. Prioritizing inclusive solutions,

3. Delivering inclusive solutions well, and

4. Maximizing existing systems performance.

Examples of how this can be done are shown on the next page. The rest of this chapter presents further information on how to translate these approaches into actions across the entire life cycle of WASH infrastructure development, focusing on selected stakeholders that play important roles in implementing inclusive actions that are critical at specific stages.

Approaches	1. Strengthen the enabling environment across the entire life cycle	2. Prioritize inclusive solutions during the planning stage	3. Deliver inclusive solutions well during the delivery stage	4. Maximize existing systems performance during the management stage
Main actors addressed in this publication (see Chapter 4 for more information)	Actors in WASH policy and strategy development and implementation, advocacy and capacity building - Governments (including policymakers and regulators) - Civil society organizations	Actors planning, designing and investing in WASH infrastructure systems and assets - Governments - Planners and designers - Project managers and teams	Actors in project delivery and construction of WASH infrastructure assets - Project managers and teams - Planners and designers - Procurement officers - Contractors	Actors in WASH service delivery and operation and maintenance of WASH infrastructure assets - WASH service operators - Asset owners
Example actions for an integrated approach to quality infrastructure development	• Create and enforce policy, legislation and regulations that enable an integrated approach to inclusive WASH • Build the capacity of different stakeholders in developing inclusive WASH, including technical skills, human capital and financial capacity	• Leverage cross-sectoral approaches to tackling WASH issues • Conduct feasibility studies that assess cross-sectoral impacts, to prioritize WASH projects that provide maximum benefit and pose minimal risk to people and the environment	• Use codes, standards and guidelines to integrate transparency, accountability, as well as social and environmental protection throughout WASH projects • Build contractors' awareness of accessibility and inclusion features	• Ensure that there is adequate long-term capacity to maintain and operate inclusive WASH services • Improve the sustainability, resilience and inclusiveness of existing WASH assets and services • Robust monitoring and evaluation systems, where women and marginalized groups are involved
Example actions to leave no one behind	• Strengthen national WASH monitoring systems for collection of disaggregated data (on age, gender, disability, location, etc.), conduct participatory consultations to identify the WASH needs of women and marginalized groups, and advocate for policies that address these needs	• Use data to prioritize solutions that reduce WASH exclusion for marginalized groups and protect water resources and indigenous heritage	• Implement measures that minimize negative environmental impacts and prevent sexual abuse, exploitation, child labour and unfair labour practices	• Collect and promptly address feedback and complaints from users of WASH services, especially women and marginalized groups
Example actions for meaningful participation	• Ensure that women and marginalized groups are well represented across the different teams, organizations and stakeholder groups involved across the entire life cycle	• Provide inclusive solutions and reasonable accommodation to encourage the participation of women and marginalized groups in the co-design of WASH infrastructure	• Prioritize solutions that make use of local materials, suppliers and workers in order to minimize emissions and distribute the economic benefits of infrastructure investment	• Establish local WASH committees that are officially recognized, visible, trained and representative of diverse groups to uphold the cleanliness, safety and effective maintenance of WASH assets

3.1 Strengthening the enabling environment

Strengthening the enabling environment includes creating and enforcing the building blocks that support inclusive WASH across the entire infrastructure system, such as a WASH sector policy strategy, institutional arrangements, financing, planning, monitoring and review, and capacity development.[20] This is an overarching activity that supports inclusive WASH across the infrastructure life cycle, as it sets the stage for effective collaboration among different stakeholders and actors. This section will be cross-referenced across other life cycle stages as necessary.

Opportunities to address WASH inequalities faced by women and marginalized groups

Chantha, age 16, high school student

"When I first had my period, I didn't know what to do. The nurse at the school health clinic said I need to wash and use menstrual products. But some people see my wheelchair and tell me that I will contaminate the water."

Women, girls and people who menstruate may face menstrual taboos, including being prohibited from accessing water sources and being exiled from home, leading to the risk of infection, violence and serious health complications.[21] Some cultures believe that persons with disabilities can contaminate water sources, which can cause double discrimination for women and girls with disabilities.

One way to support long-term inclusive and dignified menstrual hygiene management (MHM) for all women, girls and people who menstruate is to conduct capacity building with WASH practitioners on how to start conversations within communities about MHM with the goal of breaking taboos and reducing discrimination.

Actions for civil society organizations

1. Amplify the voices of the most marginalized groups in policymaking and WASH infrastructure development processes.

2. Advocate for inclusion across the life cycle of WASH development

Reader's tools
- Detailed checklists and resources
- Case study on participatory knowledge generation
- Case study on participatory processes in WASH development

Actions for governments

1. Establish policies, regulations and legal frameworks to support an integrated, cross-sectoral and participatory approach to addressing WASH-related exclusion

2. Assess, develop and reform policy, regulatory and legal frameworks for the development of inclusive WASH services

3. Develop policy frameworks to improve participation, transparency and accountability in WASH infrastructure development

4. Create and enforce regulations on inclusion requirements throughout the entire WASH project life cycle

5. Assess and strengthen capacity for inclusive WASH infrastructure development and planning

6. Build awareness of and sensitivity to gender equality and social inclusion in WASH infrastructure development and WASH practices

Reader's tools
Detailed checklists and resources

Supporting actions
Use disaggregated data to identify gaps in WASH policy

3.2 Prioritizing inclusive solutions

In this section, we explore how to prioritize inclusive solutions in order to plan inclusive water and sanitation infrastructure systems that equitably distribute the benefits of WASH services across different communities within a catchment area, as well as across the diverse social groups within these communities. In many societies, women and girls are responsible for household WASH management, yet their knowledge and perspectives are not always acknowledged in the planning of water and sanitation systems.[22] It is therefore important to consider how GESI-transformative approaches can be better incorporated within integrated water resource management (IWRM) and WASH approaches to improve the effectiveness and sustainability of WASH programmes and projects[23]

There are three stages discussed in this section, namely:

1. WASH infrastructure planning
2. Prioritization, preparation and investment
3. Project delivery planning and mobilization

Within each stage, we explore:

- The importance of inclusive approaches in each stage and across an entire WASH system

- Examples of WASH inequalities faced by women and marginalized groups, and opportunities to address these while planning WASH systems

- Actions the reader can take to implement inclusive approaches in planning WASH systems, as well as links to tools, resources and more detailed information to support these actions

What questions can we ask ourselves to help prioritize inclusive solutions when planning WASH systems?

- **Equitable:** WASH systems should create equitable access to safely managed WASH services for all people. What system improvements can be made to enhance equitable distribution of water and sanitation services to communities that need better WASH access?

- **Accessible:** Women and marginalized groups should have easy, dignified and safe access to WASH facilities throughout their daily activities. What cross-sectoral approaches are needed to ensure accessible WASH services in all public and private facilities and spaces?

- **Affordable:** WASH services should be affordable for all people, especially in water-scarce contexts. How can IWRM and WASH planning be better integrated to promote affordability of WASH provision?

- **Do-no-harm:** Water and sanitation systems should be effectively managed to avoid negative impacts to ecosystems and communities within the catchment area, especially in low-lying areas. In which parts of the current WASH system do we need to improve water quality and minimize contamination, flooding and other negative impacts?

- **Empowering:** Given their important cultural roles in household WASH management, women and marginalized groups should be able to meaningfully participate in decision-making processes determining how WASH systems are planned and prioritized. How inclusive are the participatory planning processes that we have in place?

Reader's tools
- Ideas for planning inclusive WASH systems
- Focus area on applying a GESI lens to IWRM and WASH
- Focus area on integrated water systems in humanitarian contexts
- Case study on contributing to peacebuilding through inclusive WASH
- Case study on prioritizing affordable sanitation solutions

WASH infrastructure planning

During WASH infrastructure planning, it is important to consider the current and future gaps in the WASH experiences of women, children and marginalized groups, in order to embed inclusive goals within strategic WASH priorities. Defined goals give a clear mandate to government entities to implement initiatives towards developing inclusive WASH. The inclusive goals set out in the WASH strategy can then be translated into pipelines of inclusive WASH infrastructure projects.

Opportunities to address WASH inequalities faced by women and marginalized groups

Peter, age 67, indigenous elder

"There used to be a lot of fish in the waters of my tribe's territory. Eventually more houses were built nearby, but the existing infrastructure couldn't cope and sewage flowed into the rivers, poisoning our drinking water and the fish."

It is critical to preserve the cleanliness and quality of water resources, especially in communities that rely on the water for their livelihoods and cultural practices, and have no alternatives. This is particularly important for vulnerable groups such as older people, children and people with chronic health conditions, who may not be as immune to water-borne diseases.

One important way to address this is to plan safely managed and climate-resilient water and sanitation infrastructure systems in alignment with integrated water resource management and land use planning, and to integrate GESI-transformative approaches within these. This includes partnering with women and marginalized groups in water and sanitation governance and decision-making processes for WASH infrastructure.

Actions for governments

1. Establish the right conditions so that women and marginalized groups can meaningfully participate in the planning process and influence decisions

2. Leverage cross-sectoral strategies to ensure integrated approaches to tackling WASH exclusion issues, such as aligning IWRM approaches with water and sanitation infrastructure planning

Reader's tools
Detailed checklists and resources

Actions for WASH planners and designers

1. Work with residents and local non-governmental organizations (NGOs) to identify and address existing WASH inequalities

2. Use disaggregated data, participatory consultations and context assessments to identify diverse WASH needs

3. Develop and evaluate WASH planning options based on sustainable, resilient and inclusive outcomes

Reader's tools
Detailed checklists and resources

Supporting actions to strengthen the enabling environment
- Advocacy and representation by civil society organizations
- Capacity building by governments

Prioritization, preparation and investment

Infrastructure requires significant investment and has a long operational lifespan, so it is essential to prioritize WASH infrastructure projects that can enable the provision of the most inclusive and equitable WASH services for all people over the long term.

Project preparation is a key activity in ensuring that planned WASH projects are bankable and ready for investment. During this stage, it is important that WASH projects and their intended outcomes are conceptualized according to inclusive principles. This will set the stage to secure adequate financing, resources and capacity to incorporate inclusive approaches in the design, construction, operations and maintenance of WASH assets.

Opportunities to address WASH inequalities faced by women and marginalized groups

Ram, age 7, school student

"We don't have a toilet in our house. There is a latrine a few streets away, but it's almost full. Some trucks that are sent to empty it can't reach it because the street is too small, so sometimes our neighbours just bury the sludge in the ground."

When prioritizing and preparing WASH projects, it is important to consider how the selected project will remain inclusive across the lifespan of the asset. For example, while preparing a sanitation project in informal settlements, the project concept should consider how faecal sludge management will be feasibly conducted within the site context and remain affordable across the operational lifetime of the asset, while maintaining a minimum quality standard. It is also important to analyze the social impacts of planned design

solutions, such as the risks of discrimination and gender-based violence against women, gender-diverse people, persons with disabilities and other marginalized groups within the community when accessing communal toilet blocks.

One way to address these issues is for WASH planners, designers and government agencies to conduct participatory consultations and co-creation processes with the target communities and civil society organizations to determine the most suitable and inclusive project solutions to meet the diverse needs of marginalized groups.

Actions for WASH planners and designers

1. Conduct assessments to narrow down inclusive WASH projects for prioritization, and exclude projects with unmitigable negative impacts. Explore the history of WASH projects in the area and the reasons they succeeded or failed

2. Assess the intersectional WASH needs of stakeholders and beneficiaries to ensure that the project improves WASH access for marginalized groups

3. Design the project concept and theory of change to achieve inclusive outcomes for WASH users, employees and affected communities, and incorporate the principles of universal design and reasonable accommodation

4. Analyze and evaluate project feasibility according to environmental, social and economic impacts and co-benefits

Reader's tools
Detailed checklists and resources

Actions for project managers and teams

1. Conduct continuous participatory consultations and co-creation processes with local communities and civil society organizations to inform project definition, resolve land conflicts and address context-specific WASH needs. Engage participatory consultation experts

2. Incorporate inclusion targets and objectives in the project brief

Reader's tools
Detailed checklists and resources

Actions for governments

1. Develop and prioritize WASH projects with inclusive outcomes, aligning with the strategic priorities for sustainability, resilience and inclusion

2. Develop an investment plan that considers the long-term costs of inclusive projects

3. Identify financiers who support inclusive projects and determine their requirements for effective and competitive project preparation

Reader's tools
Detailed checklists and resources

Supporting actions to strengthen the enabling environment
- Advocacy and representation by civil society organizations
- Create and enforce regulations on inclusion requirements, prioritization and selection processes by governments
- Capacity building by governments

Project delivery planning and mobilization

Once investment has been secured for WASH projects, it is important to plan and mobilize the necessary resources, technical expertise and human capital for effective project implementation.

Opportunities to address WASH inequalities faced by women and marginalized groups

Jose, age 28, market vendor

"It's very difficult for me to go to the toilet in public places. In the male toilet, I can get harassed or there are only urinals. In the female toilet, some women chase me away and I don't feel comfortable there. Some places have toilets for persons with disabilities, which I can use, but my gender identity should not be a reason for me to use this toilet."

LGBTIQ+ people can face discrimination, harassment or gender-based violence in public spaces, including public toilets. Everyone should have dignified and safe experiences using WASH facilities, but it can be difficult to design, construct and maintain inclusive WASH facilities if we are not aware of the specific challenges diverse groups face and how their needs can be addressed in the design of the built environment.

One way to develop inclusive and gender-responsive WASH facilities is to conduct inclusive hiring practices that promote diversity in project teams. This can allow for a broader range of perspectives, knowledge and lived experiences to feed into the project planning, delivery and management.

Actions for project managers and teams

1. Mobilize capacity to create and deliver on inclusive targets, including hiring GESI specialists and providing skills and capacity building for teams and private sector stakeholders

2. Ensure that project budgets can support inclusive implementation through adequate allocation and ring-fencing of resources for inclusive activities

3. Develop a GESI Action Plan with realistic targets, activities, indicators and appropriately allocated resources

Reader's tools
Detailed checklists and resources

Actions for procurement officers

1. Conduct strategic procurement planning to ensure capacity to implement sustainable and inclusive procurement processes

2. Implement measures to ensure integrity and transparency in the procurement processes, especially for public WASH infrastructure projects

Reader's tools
Detailed checklists and resources

Supporting actions to strengthen the enabling environment
- Capacity building by governments on inclusive procurement and project management
- Inclusive workforce management and diverse hiring

3.3 Delivering inclusive solutions well

In this section, we explore how WASH projects can be delivered (including design, procurement and construction) in a way that ensures infrastructure projects equitably distribute the benefits of investments in WASH to different stakeholders and do no harm to people and the environment. It is important to consider how the delivery process in itself can be inclusive and provide inclusive outcomes for women and marginalized groups, beyond the actual WASH asset being delivered. This includes promoting decent work conditions for a diverse workforce, supporting local businesses and workers, and minimizing accidents and negative environmental impacts from construction processes.

This section covers three stages, namely:

1. Design

2. Procurement

3. Construction

Within each stage, we discuss:

- The importance of inclusive approaches in each stage and across the delivery of projects

- Examples of WASH inequalities faced by women and marginalized groups, and opportunities to address these while delivering WASH projects

- Actions the reader can take to implement inclusive approaches in delivering WASH projects, as well as links to tools, resources and more detailed information to support these actions

What questions can we ask ourselves to help deliver inclusive solutions well in WASH projects?

- **Equitable:** Local communities, especially women and marginalized groups, should have equitable opportunities to benefit from infrastructure project delivery. Are there sufficient provisions for diversity and inclusion in the labour hiring and procurement processes?

- **Accessible:** Accessibility and safety standards should be enforced in the design and construction of WASH assets. Do the design and construction management produce safe and accessible environments for women and marginalized groups in and around the project site?

- **Affordable:** Construction processes should be efficient and high quality to ensure the value for money, durability and affordability of the WASH asset over its lifetime. Do the selected design, materials and construction methods optimize the value for money of the WASH project in tandem with inclusive targets?

- **Do-no-harm:** The implementation of the WASH project should mitigate any harm to the local community and environment. What environmental and social safeguards can be put in place to minimize negative impacts?

- **Empowering:** The knowledge, expertise and perspectives of local communities and marginalized groups should be integrated into infrastructure delivery. Based on participatory consultations with the local community, what local knowledge and expertise can be applied in the project delivery?

Reader's tools
- Ideas for designing inclusive WASH projects
- Focus area on a holistic, rights-based approach to WASH development
- Case study on inclusive design for emergency WASH services
- Case study on delivering and maintaining inclusive public toilets

Design

The design process involves identifying the diverse WASH needs of the target community and addressing these through inclusive, gender-responsive and universal design. It is crucial to optimize the design to ensure value for money and to enhance the durability and efficiency of the WASH asset or service. This includes making informed decisions when planning the layout as well as when selecting equipment, systems, construction materials and the corresponding construction methods.

Opportunities to address inequalities faced by women and marginalized groups

Peter, age 67, indigenous elder

"I go to the community centre regularly, and the toilet there is on the second floor. I drink less water so that I don't have to go upstairs, as I have to leave my white cane downstairs to hold on to the railing with both hands."

Older persons and persons with disabilities can find it challenging to use WASH facilities, especially when more physical effort is needed to access or use them. Some older persons choose to drink less water to reduce their use of WASH facilities, which could cause dehydration, skin infections and further illness.[24]

One way to address this is to apply the concepts of the accessibility continuum and RECU methodology. This includes considering the experiences of diverse people when departing from their homes, using pathways and taking transportation to reach, enter and use services and facilities.

Actions for project managers and teams

1. Review and validate concept designs with the end users, especially women and marginalized groups, to ensure that they fulfil diverse needs

2. Ensure that participatory consultations are conducted in an inclusive and accessible manner

Reader's tools
Detailed checklists and resources

Actions for WASH planners and designers

1. Incorporate the results of participatory and co-creative processes in the design

2. Integrate design approaches that promote inclusion (including universal design and reasonable accommodation) together with efforts to achieve sustainability and resilience

3. Optimize the design to maximize positive impacts, minimize negative impacts, and reduce future operational and maintenance costs

Reader's tools
Detailed checklists and resources

Supporting actions to strengthen the enabling environment

- Advocacy and representation by civil society organizations
- Enforce legal requirements for inclusive design by governments

Procurement

Inclusive procurement of works, goods and services for the detailed design and construction of a WASH infrastructure project can ensure that the members of the local community, especially women and marginalized groups, can share in the economic benefits resulting from the infrastructure investment.

Opportunities to address inequalities faced by women and marginalized groups

Fatima, age 42, farmer

"Somebody came to the camp and said we could earn some money by making bricks to construct toilets. But when we talked to the contractor, they said they would only buy our products for half the price they offered other suppliers. They said the police wouldn't help us because we are refugees."

While procurement for infrastructure projects can bring business and economic investment to a community, there is a risk of abuse and exploitation of women, children and marginalized groups who are involved or adjacent to the project sites or in the manufacturing of goods or materials.

Project managers and procurement officers must ensure that contractors and suppliers adhere to human rights principles and inclusive procurement processes, especially when engaging small businesses and underrepresented suppliers for smaller tender lots.

Actions for procurement officers

1. Ensure that underrepresented qualified suppliers can participate in the bidding process

2. Integrate inclusion requirements when formulating bid requirements, contract clauses and key performance indicators, such as requiring suppliers to have policies for equal pay for equal work, non-discrimination, protection from sexual exploitation, abuse and harassment, and prohibition of child labour and forced labour, among others

Reader's tools
Detailed checklists and resources

Construction

During construction, it is critical that inclusive features are built according to specifications to ensure that they function as designed. There are also opportunities to engage local community members in the construction process. This not only provides economic benefits to the community, but also creates a sense of ownership of the infrastructure asset.

Opportunities to address inequalities faced by women and marginalized groups

Ram, age 7, school student

"I saw some workers with a big machine digging in the road. They said they will replace the pipes. The smell of diesel fuel was strong. The next day, my mother said we could not use the water pump because the officials said the water became dirty from the diesel. But we couldn't buy bottled water, so I drank it anyway when my mother wasn't looking."

Construction activities can create hazardous situations for both construction workers and people in the vicinity of the site. Improper storage and handling of hazardous materials, such as diesel fuel, can lead to environmental and health risks, such as groundwater contamination. This can be especially dangerous for marginalized communities with no alternative water source, particularly for children who may not always understand the risks.

One way to ensure the safety of a construction site is to implement health and safety standards both within the site and along its perimeter. Capacity building and training in health and safety should also be conducted when inducting new workers, particularly when engaging local community members and marginalized groups in construction.

Actions for project managers and teams

1. Improve the capacity of project teams, contractors and labourers to implement inclusive construction practices (including reasonable accommodation) and foster an inclusive workplace

2. Monitor, evaluate and learn from inclusion efforts

3. Implement the GESI Action Plan and safeguards against negative social and environmental impacts of construction

4. Engage stakeholders in transparent and participatory project implementation

Reader's tools
Detailed checklists and resources

Actions for contractors

1. Engage in inclusive workforce management, which promotes diversity and inclusion in hiring practices

2. Engage in inclusive construction management, which ensures decent work conditions and enforces health, safety, security and environment (HSSE) standards

3. Maintain safe and inclusive construction sites

Reader's tools
Detailed checklists and resources

Supporting actions to strengthen the enabling environment
Enforce legal requirements for inclusive construction by governments

3.4 Maximizing existing systems performance

In this section, we explore how to manage WASH assets and services in order to maximize their performance and ensure reliable, safe, affordable and accessible WASH for all users over the operational lifetime of the infrastructure system. It is important to consider how the management of WASH assets affects the functionality of accessible features, actual and perceived safety, and the long-term affordability of WASH services. This section discusses two stages, namely:

1. Operations and Maintenance (O&M)
2. Renovating, Retrofitting, Repurposing, Decommissioning

Within each stage, we explore:

- The importance of inclusive approaches in each stage and across the management of WASH assets and services
- Examples of WASH inequalities faced by women and marginalized groups, and opportunities to address these while managing WASH assets and services
- Actions the reader can take to implement inclusive approaches in managing WASH assets and services, as well as links to tools, resources and more detailed information to support these actions

What questions can we ask ourselves to maximize systems performance when managing WASH assets and services?

- **Equitable:** WASH assets and services should continue to meet the diverse needs of users over the operational lifetime of the asset. Are there any social groups in the local community that face existing limitations or could face new ones in using or accessing the WASH asset or service?

- **Accessible:** Users and staff should have easy, safe and dignified access to WASH facilities and services over the operational lifetime of the assets. Are regular safety and accessibility audits being conducted? Are the results of audits being addressed?

- **Affordable:** The WASH service should continue to be affordable for women and marginalized groups over its operational lifetime. What measures can be taken to reduce the operational costs being passed to users?

- **Do-no-harm:** The management of the WASH service should mitigate harm to users, the local community and the environment. What measures can be taken to minimize pollution and improve well-being near and around the WASH asset?

- **Empowering:** Users, especially women and marginalized groups, should be empowered to make full use of the WASH service. Is user feedback collected and regularly addressed to ensure continued improvements?

Reader's tools

- Ideas for managing inclusive WASH services
- Focus area on female-friendly and accessible public and community toilets
- Case study on accessibility and safety audits of WASH facilities
- Case study on rehabilitating WASH facilities for inclusion

Operations & Maintenance (O&M)

WASH assets and services should be well maintained to continuously provide affordable, quality and safe WASH to all users. It is crucial to establish asset management processes and long-term investment plans with clear roles and responsibilities to ensure that WASH facilities and their inclusive features are being operated and maintained properly across their lifespans.

Opportunities to address WASH inequalities faced by women and marginalized groups

Chantha, age 16, high school student

"We have no maintenance personnel in our high school. The toilet has no running water and it's hard to throw out sanitary napkins. The boys tease us if they see stains on our uniforms, so I just stay home during my period because it is so difficult to wash and change at school."

Menstrual taboos still exist in many cultures, which perpetuates the perception that menstruation is dirty or shameful. Managing menstrual hygiene can be even more difficult for persons with disabilities, who may have to ask for help in fetching water to wash with, or to be able to use the toilet if there are no accessibility provisions.

One way to support long-term inclusive and dignified menstrual hygiene management (MHM) for all women, girls and people who menstruate is to ensure that all WASH facilities are well maintained and have operational and easy-to-use features for accessibility and MHM. In addition, continuous advocacy, awareness raising and sensitivity building for people of all genders can help to break taboos around menstruation and encourage safe MHM practices.

Actions for WASH operators

1. Build GESI awareness to foster inclusive WASH environments

2. Operate and maintain WASH assets and services to provide safe, reliable and accessible WASH for all users

3. Establish inclusive monitoring and feedback mechanisms

Reader's tools
Detailed checklists and resources

Actions for asset owners

1. Collect information on WASH asset condition and performance to identify areas for routine and specialized maintenance activities to improve inclusive outcomes

2. Maintain user affordability through proper financial management and by prioritizing budgets for the maintenance of inclusive features

Reader's tools
Detailed checklists and resources

Actions for civil society organizations

1. Work with communities and the local government to maintain WASH assets and promote safe hygiene practices

Reader's tools
Detailed checklists and resources

Renovating, Retrofitting, Repurposing, Decommissioning

Infrastructure assets have long lifespans, which can be extended by renovating, repurposing and retrofitting. Decommissioning is completed at the end of the WASH asset's useful lifespan by dismantling the asset, reusing or recycling the materials and vacating the land. These processes must be done through an inclusive approach in order to ensure that inclusive WASH services are still supported through other means and to minimize any harm to the local community and environment.

Opportunities to address inequalities faced by women and marginalized groups

Jose, age 28, market vendor

"There are some unused water towers in the neighbourhoods around the edge of town. I was mugged a few years back while walking past one of these areas, so I try to avoid them. Lots of crime happens there because there are no lights around and the spaces are abandoned."

It may seem that unused WASH facilities just become empty and don't have any negative impacts, but dilapidated and abandoned WASH facilities can become dangerous or crime-prone, especially in neighbourhoods that experience extreme inequality. It is important that unused facilities are renovated, retrofitted, repurposed or decommissioned in order to prevent negative impacts in local communities.

One example of how old WASH assets can be repurposed to benefit local communities is the transformation of unused water tanks into public spaces in Medellín, Colombia. Participatory design was used to co-create open and interactive public spaces that the community can enjoy.

Actions for asset owners

3. Collect information on WASH asset condition and performance to identify access issues and opportunities for renovating, retrofitting, repurposing or decommissioning

4. Retrofit or renovate WASH infrastructure assets to improve inclusion, sustainability and resilience

Reader's tools
Detailed checklists and resources

Actions for project managers and teams

1. Repurpose old WASH infrastructure assets into more appropriate types of WASH, social or civic infrastructure that better serves communities

2. Support inclusive decommissioning activities, including safe and inclusive waste management

Reader's tools
Detailed checklists and resources

4. Reader's tools

This chapter provides tools that aim to support the reader in gaining insight into actions, concepts and ideas towards implementing inclusive approaches in WASH infrastructure development. These reader's tools include:

1. **Inclusive WASH ideas:** illustrations that show examples of ideas for planning WASH systems, designing WASH projects and managing WASH facilities to support equitable, accessible, affordable, do-no-harm and empowering WASH outcomes for women and marginalized groups.

2. **Focus areas:** narratives written by the co-authors that present concepts supporting integrated solutions to sustainability, resilience and inclusion in WASH development.

3. **Case studies:** information about ongoing or completed WASH projects that highlight how inclusive approaches can be implemented within infrastructure development.

4. **Action checklists and resources:** checklists that present more detailed information about the recommended actions in Chapter 3, as well as links to resources which provide specific guidance on how to implement these.

5. **Abbreviations:** list of abbreviations used in the publication.

6. **Glossary:** list of key terms used in the document and their definitions.

7. **References:** list of sources referenced in the publication.

The action checklists and resources are organized by stakeholder role for ease of navigation. It should be noted that a stakeholder may play multiple roles and can therefore use several of the checklists, depending on the information they are seeking. The stakeholders included in this publication are:

1. **Civil society organizations:** non-profit or non-governmental organizations that support, represent and advocate for women, marginalized groups and local communities affected by WASH infrastructure. This can include community-based organizations, WASH advocacy organizations, women's organizations, disability advocacy organizations, and academic or research institutions, among others.

2. **Governments:** government agencies or entities that are involved in the planning, delivery and/or management of WASH infrastructure. This can include infrastructure ministries, water and sanitation ministries, and local and regional governments, among others. This checklist for governments focuses mainly on the role of government in policymaking, capacity building, investment, and infrastructure planning and development on a national, regional or city/village scale. For other roles conducted by government entities, refer to the other checklists.

3. **Planners and designers:** individuals, teams or firms responsible for planning and designing WASH systems or projects.

4. **Project managers and teams:** individuals, teams, companies or organizations responsible for the project management of WASH projects or programmes.

5. **Procurement officers:** individuals or organizations responsible for the procurement of works, supplies, goods and services related to WASH projects. This includes procurement of the services of planners, designers, project managers, contractors and other consultants.

6. **Contractors:** individuals or organizations responsible for the construction and implementation of WASH projects.

7. **Operators:** individuals, teams or organizations responsible for the process of maintaining WASH assets and/or operating the WASH services provided by the assets.

8. **Asset owners:** individuals or organizations who have legal ownership of WASH assets and are responsible for their overall performance.
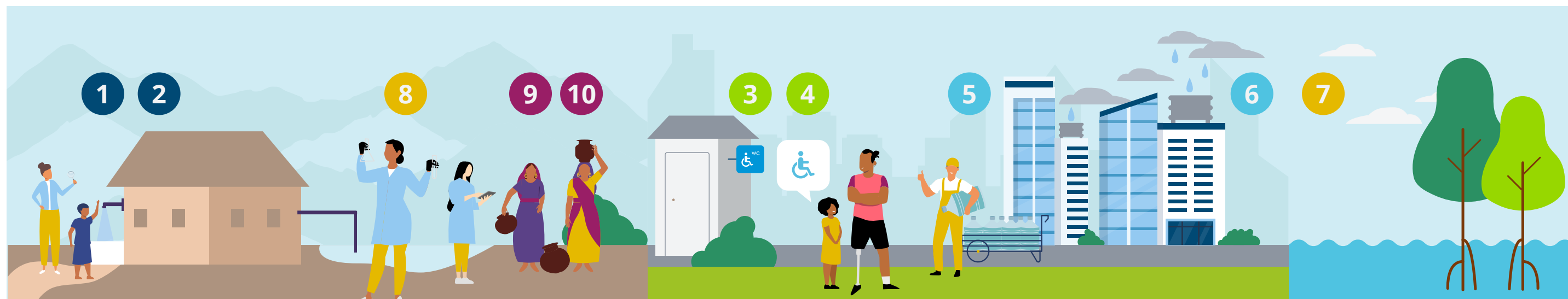
Figure 2: Examples of ideas to consider while planning inclusive WASH systems

Equitable	Accessible	Affordable	Do-no-harm	Empowering
1. Spatial and disaggregated data can be used to assess the availability and distribution of safely managed WASH within a catchment area, especially in water-scarce areas, rural villages, informal settlements, displacement sites and marginalized communities.	3. Universal design and accessibility requirements should be mandatory in all public WASH infrastructure.	5. The role of informal suppliers in the WASH system should be considered while planning WASH infrastructure so that both consumer rights and vendor livelihoods are protected.	7. Nature-based solutions for water resource management, such as wetlands, bioswales, mangroves and agroecological practices, can reduce harm to nature and people.	9. Free, prior and informed consent should be obtained for any WASH projects on indigenous lands.
2. A water safety plan (WSP) can be used to identify and mitigate inequities in access to safe water.	4. Public awareness and sensitivity campaigns can help reduce stigma related to disability, menstruation and other context-specific taboos that can restrict access to WASH facilities in some contexts.	6. Mandatory water efficiency and recycling systems in mass housing can support the affordability of WASH services at the household level.	8. National water and wastewater quality standards should be defined and enforced to ensure that all people have access to safe WASH.	10. Learning alliances can be developed to generate change in the WASH system.

← Return to Prioritizing inclusive solutions
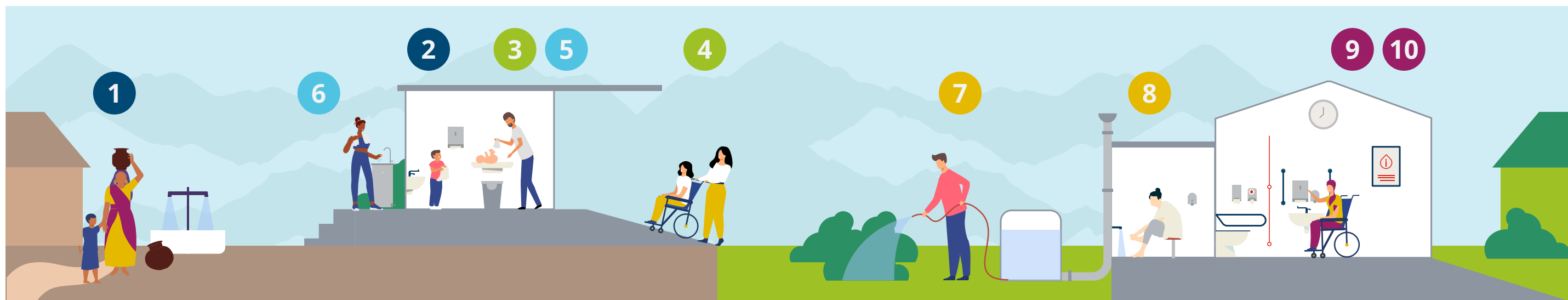
Figure 3: Examples of ideas to consider while delivering inclusive solutions well in WASH projects

Equitable	Accessible	Affordable	Do-no-harm	Empowering
1. Water delivery points are located in safe and easily accessible areas within communities to help reduce the time women and children spend collecting water.	3. Diaper changing stations in male, female, all-gender and accessible toilets support all caregivers in managing children's hygiene.	5. Public toilet design choices should be optimized to minimize user costs while ensuring durability, quality, safety and accessibility.	7. Sustainable plumbing design features, such as water-saving fixtures and recycling systems for rain and greywater, can help address water scarcity.	9. Adequate provisions to manage menstrual hygiene in schools, workplaces and public facilities support women, girls and gender-diverse people to fully participate in society.
2. Public water sources and latrines are easy to reach, enter, circulate in and use for all users, including children and persons with disabilities.	4. WASH facilities in schools, workplaces and public spaces comply with universal design standards.	6. Free water fountains and toilets in public spaces can enable all people to enjoy public amenities and support those who need access to water more often, such as people on medication.	8. All water and sanitation facilities and features should be designed according to the local sociocultural practices and standards and take into account peoples' relationship to water.	10. Displaying information about hygiene practices in public toilets can enhance knowledge and promote good practices in menstrual hygiene management and sexual and reproductive health and rights.

Figure 4: Examples of ideas to consider while maximizing the performance of inclusive WASH assets and services

Equitable	Accessible	Affordable	Do-no-harm	Empowering
1. Regular monitoring and regulation of WASH operations by authorities and community committees can help ensure equitable service for all users, especially in remote areas.	3. Regular cleaning of premises to maintain natural surveillance and maintenance of lights, locks and safety features in public toilet facilities can help reduce the risk of crime and sexual violence.	5. Diversify sources of income to operate and maintain facilities. For example, urban community toilets that rely on user fees could increase their income by placing solar panels on the superstructure and selling the energy.	7. Sensor-activated lights and plumbing fixtures in public toilets can help reduce consumption as well as support users with limited mobility.	9. Where community-based management of WASH facilities is promoted, local authorities should provide support, recognition and training to maintenance committees.
2. Regular maintenance, repair and retrofitting (when necessary) of WASH facilities, including accessibility features, can help ensure adequate and continuous service for all users.	4. Conduct public information campaigns on sustainable WASH practices in accessible formats, especially among those highly vulnerable to communicable diseases, such as children.	6. Share information in accessible formats about locations offering free or affordable water and sanitation and laundry facilities for homeless people, travellers and people living in poverty.	8. In addition to improving solid waste management and sanitation, regular cleaning of open water structures such as canals can mitigate the spread of waterborne diseases and pollution of water resources.	10. Complaint and feedback systems for water and sanitation facilities and services can help ensure that diverse needs are being met.

FOCUS AREA:
Inclusive WASH for all children

By UNICEF

Children are the most vulnerable to a lack of safe and adequate WASH services. WASH-related diseases hit children the hardest, with stunting – caused in part by poor sanitation and open defecation – preventing children from reaching their full potential, and low WASH coverage in schools denying children their right to an education. In emergency situations, children suffer the most from interruptions in water and sanitation services. Girls are affected disproportionately by poor access. This includes through the loss of productive and leisure time due to the drudgery of water hauling and other WASH-related domestic labour; the exclusion from full participation in schools due to a lack of WASH facilities; the risk of contracting urinary tract infections arising from delayed urination or reduced water intake to cope with a lack of access to sanitation facilities; and the loss of dignity and threat of sexual assault due to the lack of toilets, both in times of stability and crisis. Children with disabilities are denied access to a school education when accessible WASH facilities are unavailable or inadequate.

In line with the Convention on the Rights of the Child (CRC), programming approaches and infrastructure must be designed and implemented to ensure that the WASH rights of children are fully met. A children's rights-based approach must be incorporated in all aspects of the project cycle, recognizing children as human beings with a distinct set of rights and entitlements, rather than as passive objects of care and charity.

Inclusive water, sanitation and hygiene infrastructure and services are essential at home, at school, and in healthcare facilities and public places to ensure that the rights of all children to these essential services are met and that they have the opportunity to survive, develop and reach their full potential, without discrimination, bias or favouritism.

Project case study: Disability-inclusive WASH humanitarian response in the Syrian Arab Republic

The conflict in the Syrian Arab Republic has both increased the number of persons with disabilities and impacted their access to schools, water, sanitation and hygiene (WASH) infrastructure and humanitarian assistance. With 2.9 million persons with disabilities in need of WASH assistance in the country in 2021, the provision of disability-inclusive and accessible WASH services remains of critical importance. UNICEF and partners are meeting the WASH rights and needs of persons with disabilities by: (1) providing disability-inclusive humanitarian WASH services for internally displaced persons, including those with disabilities; and (2) restoring WASH services through the rehabilitation of WASH facilities, with a focus on WASH in schools.

UNICEF has taken a holistic approach to the rehabilitation of schools, developing guidelines and standards to ensure the construction of all school infrastructure is disability accessible, including WASH facilities. The guidelines for the construction of schools and rehabilitation of damaged schools were developed and endorsed by the Syrian Ministry of Education in 2020 for use across the Syrian Arab Republic, working towards removing barriers for children with disabilities to access education at scale.

← Return to Introduction Chapter

FOCUS AREA:

GESI-transformative approaches

By UNOPS

Gender equality and social inclusion are both major components of the leave no one behind principle. In developing inclusive infrastructure, it is essential to avoid perpetuating the inequalities and systemic barriers faced by women and marginalized groups and move towards GESI-transformative approaches.

Based on the Gender Integration Continuum developed by the United States Agency for International Development's Interagency Gender Working Group, a GESI Integration Continuum framework shows that projects may unintentionally exploit women and marginalized groups if systemic barriers are not properly considered and addressed. This concept has been adapted into gender mainstreaming standards across the United Nations, including the Gender Results Effectiveness Scale of the United Nations Development Programme (UNDP), and the Guidance on Gender Integration in Evaluation of the United Nations Children's Fund (UNICEF). Developing inclusive WASH infrastructure that leaves no one behind requires an active attempt to examine, question and change the systemic barriers and harmful norms and practices surrounding WASH infrastructure.

Figure 5: A journey towards gender equality and social inclusion

GOAL: Gender equality and social inclusion

GESI-transformative approaches
Address root causes of inequalities and transform harmful practices

Example: In addition to the GESI-responsive approaches, men and boys are engaged to participate in household water management, and women and girls are engaged in water governance. This targets the root causes of gendered time poverty.

GESI-responsive approaches
Take steps to address diverse needs towards equal outcomes

Example: In addition to the GESI-sensitive approaches, awareness sessions are conducted to address cultural norms and taboos. Accessibility features are added to make it easier for persons with disabilities and older people to access and use the water pump. This can help to improve independence and reduce WASH-related vulnerability.

GESI-sensitive approaches
Recognize but do not fully address inequalities

Example: Women community leaders are engaged in discussions about how to improve water collection. The water collection facility is built inside the village and lights are provided along the pathway. This can help reduce time poverty but doesn't address the gendered norms.

GESI-blind approaches
Ignore and perpetuate inequalities

Example: Women and marginalized groups are not included in consultations and surveys about water collection and use. The water collection facility is improved but remains in the same location, maintaining gendered norms related to water collection, use and management.

FOCUS AREA:

Applying a GESI lens to IWRM and WASH

By UNOPS

Integrated water resource management (IWRM) is an important process that ensures the availability of water resources for our societies, within which WASH practices are a subset. Therefore, the proper management of WASH systems is a necessary component of IWRM to maintain the cleanliness and availability of water, which can affect other demands for water resources beyond WASH such as irrigation, industry, ecosystem services and natural habitats.

To apply a GESI lens to the planning, delivery and management of WASH infrastructure, it is important to understand any types of exclusion faced by women and marginalized groups in the management, governance and control of water resources that can trickle down and affect the way they access, use and manage WASH services. This means that we also need to extend a GESI lens to IWRM and find synergies across both. Here are some examples of scenarios where we can adopt a GESI-transformative perspective towards achieving more inclusive IWRM and WASH:

- When completing a new WASH project, a GESI and IWRM assessment can be undertaken to inform actions that can be implemented across the infrastructure life cycle and water value chain to improve impact. An example action includes the creation of accountability mechanisms to break the pattern of business as usual and bridge policy with implementation.

- Water is an important cultural and economic good, and it is necessary for agriculture and industry. For subsistence farmers, water scarcity can lead to food insecurity, disease, undernourishment and loss of livelihood. Integrating IWRM and WASH solutions, such as harvesting rainwater for

WASH, using greywater for irrigation, and using compost toilets to provide fertilizer, can help mitigate such negative impacts.

- In many traditions, women and girls are responsible for WASH management at the household level while men are responsible for WASH management and governance at the community level.[25] To improve inclusive outcomes, women and girls should be included in community-level WASH management and governance due to their understanding of the household-level needs and practices. However, we need to recognize that the responsibility of water collection can be a barrier to their participation, as it can take significant time and effort. Therefore, improving household access to safely managed WASH and engaging communities to address harmful gender dynamics related to WASH can help support more inclusive and meaningful participation in IWRM. This can be achieved by engaging men in sharing the household responsibility for water collection.

- Indigenous peoples have long been stewards of the natural environment, including water resources. When improving water infrastructure in catchment areas within or near indigenous lands, extensive consultation with the indigenous communities is paramount. It has been found that the improvement of indigenous technologies can provide sustainable long-term solutions to address water scarcity.[26]

Read More
- Integrating Gender Equality and Social Inclusion in WASH and IWRM: A Quick Guide for Practitioners, PRO-WASH, 2022.
- Human rights-based approach to integrated water resources management: Training manual and facilitator's guide, UNDP-SIWI Water Governance Facility, WaterLex, REDICA and Cap-Net, 2017.

← Return to Prioritizing inclusive solutions

FOCUS AREA:
Integrated water systems in humanitarian contexts

By Arup

The different parts of water systems cannot be tackled in isolation because of the interdependencies between components that can lead to system failures and other negative impacts, especially in challenging contexts. For example, poor surface water management in refugee camps and informal settlements can cause flooding and waterlogging. The excess surface water can lead to vector-borne diseases, such as malaria, dengue and worm infections, and provide a route for water-borne diseases such as cholera, hepatitis E and typhoid. Flooding also makes the movement of people and vehicles around the camps difficult, thus delaying the provision of essential WASH services.

Addressing such water-related challenges requires an approach that looks at the whole system – rethinking the way we plan, design and work among all stakeholders involved. This means that every water-related project, no matter how small in scale, should be observed through an integrated systems lens.

Arup has launched a paper called A new future for water that identifies nine features to support communities and organizations in developing more effective and integrated WASH infrastructure services that can help them push towards a different and better future.
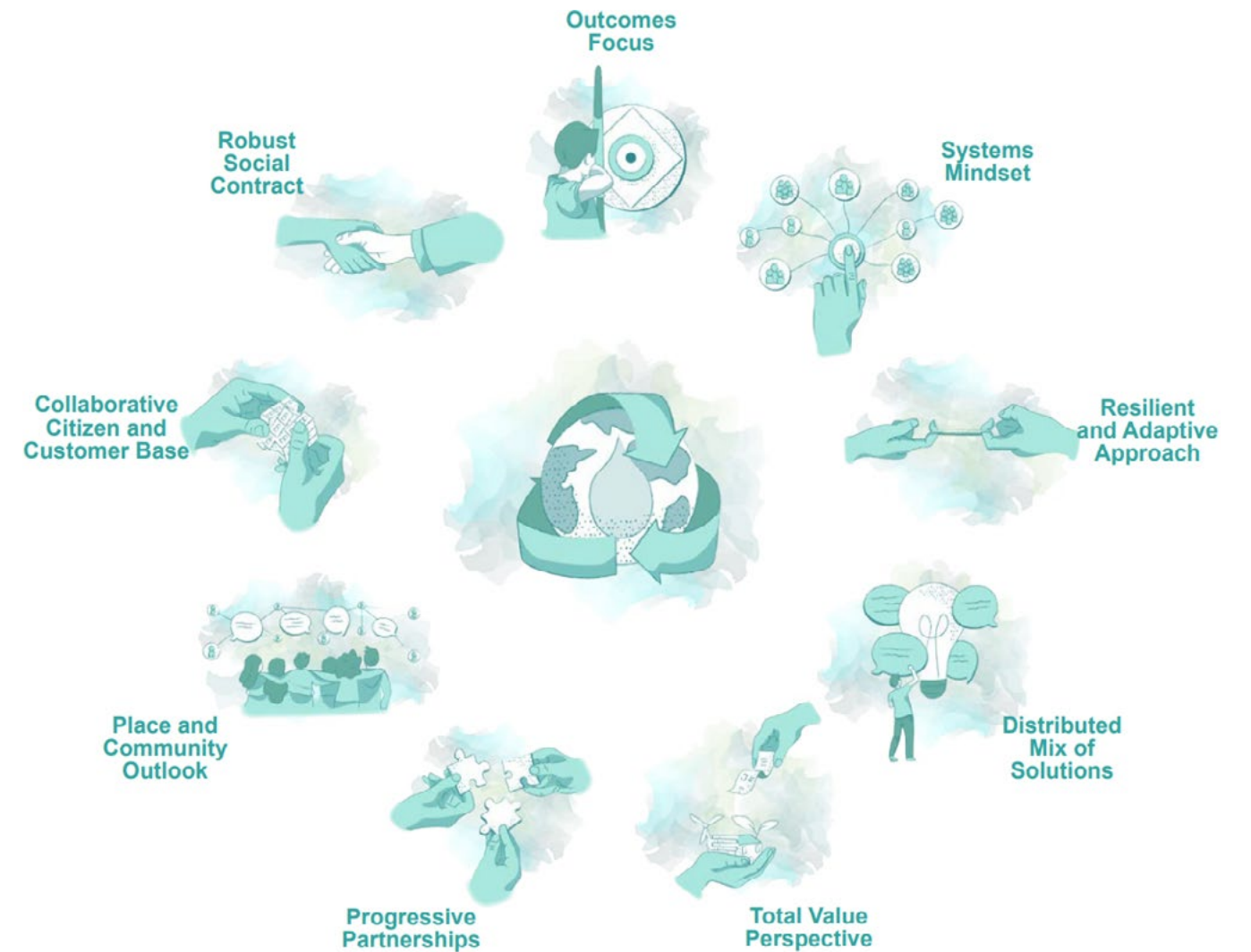
These nine characteristics can also serve to guide the planning and design of WASH infrastructure:

1. **Outcomes Focus:** Creating common goals for the environment and society as central to what the community is aiming to positively impact and looking at how others within the system contribute to those.

2. **Systems Mindset:** Understanding the interconnections and interdependencies among the different WASH components to improve the integration of decisions, along with the data and models that underpin them, for example, within catchments and across potable water and wastewater systems.

3. **Resilient and Adaptive Approach:** Planning and investing in a WASH system with the ability to cope with and recover from disruption, as well as the ability to anticipate and mitigate against future challenges and threats.

4. **Distributed Mix of Solutions:** Diversifying asset portfolios to include a hybrid set of WASH solutions and interventions that make greater use of catchment and nature-based solutions alongside deep behavioural changes.

5. **Total Value Perspective:** Recognizing, understanding and quantifying the full value and impact of the decisions on WASH solutions. This underpins the ability to implement a more appropriate response to challenging social and environmental contexts by also taking into account social, environmental and ethical considerations to understand total value.

6. **Progressive Partnerships:** Forming new and different partnerships, especially between actors that have not traditionally worked together, to support a participatory approach for WASH projects.

7. **Place and Community Outlook:** Identifying the most appropriate WASH solutions that reflect the priorities, needs and values of local communities and address the challenges they locally face.

8. **Collaborative Citizen and Customer Base:** Incorporating the actions and behaviours of individual citizens to form part of the solutions, especially in humanitarian contexts where water is scarce.

9. **Robust Social Contract:** Strengthening the implicit agreement between individuals and their governments, communities or organizations. This includes the notions of mutual obligations and shared responsibility, consent, reciprocity, the protection of rights, and accountability.

In addition to these principles, it is relevant to understand the elements to consider while working in humanitarian contexts. For this purpose, Arup, with the support of Oxfam and other partners, developed a guidance on surface water management in humanitarian contexts. The guidance focuses on the outcome of good surface water management on the health and well-being of people and the environment, by considering both water quality and quantity, minimizing a variety of closely linked vulnerabilities, maximizing the opportunities available to provide wider benefits to each site, and promoting seven prevention and mitigation techniques to try to manage surface water.

← Return to Prioritizing inclusive solutions

FOCUS AREA:

A holistic and integrated rights-based approach to ensure inclusiveness, sustainability and adherence to decent work principles in WASH development in the Global South

By International Labour Organization (ILO) – Employment Intensive Investment Programme (EIIP)

ILO's Employment-Intensive Investment Programme (EIIP) follows a holistic approach in its infrastructure development projects – including WASH projects – to ensure not only inclusiveness and adherence to decent work principles, but also long-term sustainability. Well-established EIIP planning, design and construction approaches, guidelines and standards – including comprehensive Integrated Rural Accessibility Planning (IRAP) and environmental and social safeguards (ESS) guidelines – ensure equal and inclusive access rights for all to the provided WASH infrastructure and services.

Throughout the project cycle, the targeted communities/groups and other stakeholders are actively involved in decision-making, using inclusive participatory consultation and decision-making approaches. This relates to the planning, design, construction, and operations and maintenance (O&M) of the project. As the establishment of viable and sustainable O&M systems is a key condition to achieve sustainability, consultations with communities and other responsible actors about O&M arrangements and systems already start during the planning phase of projects.

Local resource-based (LRB) approaches are applied that make optimum use of locally available resources, including local labour. This, in combination with carefully selected environmentally sustainable design solutions (like eco-based solutions and nature-based solutions – NbS) that are climate resilient, ensures the environmental sustainability of WASH projects and creates substantial short-term local employment opportunities. Depending on specific projects'

characteristics, community contracting, contracting through small local contractors, or a combination of both is done to implement the construction works.

To ensure equal access for all, equal pay for work of equal value, and adherence to wage- and non-wage-related working condition requirements in construction, rehabilitation and maintenance works, EIIP has a wide range of well-established guidelines that have proven their effectiveness in ensuring adherence to the principles of inclusiveness and decent work throughout the entire project cycle.

The feasibility, efficiency, effectiveness and sustainability of applying inclusive approaches to WASH development depend largely on the enabling environment. The enabling environment relates not only to national or regional legislative, regulatory or strategic investment frameworks, but also to the available institutional and technical capacities among actors involved at policy and operational levels.

Considering the critical importance of capacities, one of EIIP's core activities is to support governments, private sector stakeholders (including training institutes, small local contractors, CSOs, NGOs) and community-based organizations in strengthening their capacities. Likewise, EIIP also provides advisory services and support at national/regional level in strengthening overarching legislative, regulatory, strategic, institutional and operational frameworks for employment-intensive, inclusive and sustainable infrastructure development.

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Read more

- ILO/EIIP general sources of information:

  - EIIP website
  - EIIP/ILO ASISTDOC – bibliographic database that contains thousands of documents produced by the ILO as well as its partners relating to labour-based technologies and local-level planning
  - ILO Conventions and WASH
  - EIIP digital collection
  - The ILO International Training Centre (ITC) in Turin offers a wide range of training courses for practitioners and policymakers on a broad range of topics that are relevant in the context of the ILO Decent Work Agenda – including EIIP: EIIP courses at ILO's International Training Centre Turin

- Learn more about EIIP in WASH infrastructure projects:

  - Gravity-led water supply project after 2018 earthquake in Papua New Guinea (Video)
  - Former combatants partner for safe water, peace in Mindanao, Philippines (Video)
  - New water system promotes peace, decent work in Maguindanao, Philippines (Video)
  - Clean water, decent work unite communities for peace in Lanao del Sur, Philippines (Video)
  - Inclusive WASH governance with the Comunidad Mbya Guaraní Tekoa Ará Poty (Flor de Primavera) in Argentina (Video)
  - Indigenous peoples build new water system in Looy, Maguindanao, Philippines (Video)

← **Return to Delivering inclusive solutions well**

FOCUS AREA:

Female-friendly and accessible public and community toilets: a guideline and four-city assessment

By WaterAid

In 2018, WaterAid, Water & Sanitation for the Urban Poor (WSUP) and UNICEF published Female-friendly public and community toilets: a guide for planners and decision makers. The guide highlighted that poor access to sanitation disproportionately affects women and girls due to their social and cultural roles, responsibilities, restrictions, biology and physiology, including menstrual needs. It outlined essential and desirable features for public and community toilets to be:

1. Safe and private,

2. Able to cater for menstrual management and other hygiene requirements,

3. Accessible to all users,

4. Affordable and available when needed,

5. Well maintained and managed, and

6. Able to meet the requirements of caregivers and parents.

After publication, four WaterAid country programmes undertook city-wide assessments of public toilets, some with municipal partners, to test the methodology and document current provision. This happened in:

- Babati, Tanzania: all 5 toilets

- Central Indian city:[27] selected 14 toilets

- Kathmandu, Lalitpur, Kirtipur and Madhyapur Thimi, Nepal: all 115 toilets

- Chattogram, Bangladesh: all 45 toilets

Results showed significant variation between countries.

- Most are not meeting the full criteria for female friendliness and accessibility.

- Generally, toilets were within a solid structure with varying levels of privacy. In Bangladesh and India, privacy was often brought up in user interviews, with concerns that facilities were designed in such a way that female users felt they could be seen when using more communal areas such as menstrual pad vending machines or handwashing basins (where they may need to wash menstrual products).

- Cleanliness of facilities was a problem, with different causes. Some locations saw it as a user education issue, while in others, cleaners lacked the necessary materials to do their job.

- Accessibility for users with disabilities scored poorly – in some cities there was not a single accessible toilet cubicle, potentially impacting persons with disabilities, pregnant women, small children and people who are injured or sick.

- Availability of handwashing units varied greatly – in some areas, there was no way to practise basic hygiene. In the central Indian city, however, there were handwashing units in all facilities, with most having running water.

- No country had existing guidelines for assessing the suitability of public toilets from a gender perspective. All assessments brought up a need for more stringent national and/or local standards for inclusive, accessible, female-friendly toilets.

- No assessed public toilets had facilities to help parents or caregivers manage the needs of those they are caring for, such as space for baby changing or breastfeeding spaces.

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Assessments led to recommended actions ranging from quick wins to medium- and long-term solutions. Some simple and low-cost modifications – such as providing hooks, ledges and accessibility grab rails – were identified to make significant improvements in the short term. Meanwhile, medium-term adaptations of facilities included adding ramps where steps are too high, better signage for all users, and even, obstacle-free pathways to the facilities. In the longer term, working with governments and municipalities on better regulations for public and community toilets was identified as a necessary action.

Read more
- Female-friendly public and community toilets: a guide for planners and decision makers
- Female-friendly public and community toilets (Webinar)

← Return to Maximizing systems performance

Empowering persons with disabilities on inclusive WASH in Fiji

Case study on participatory knowledge generation

© UNICEF

Location

Fiji

Duration

2021

Partners

UNICEF Pacific Office, the Pacific Disability Forum (PDF) and Fiji Disabled Persons Federation (FDPF)

Life cycle stage

Planning, delivery and management

Target groups

Persons with disabilities

Background & objectives

East Asia and the Pacific is the most disaster-prone region in the world and is the region most impacted by multiple and overlapping climate shocks and hazards. In emergencies, children with disabilities are most likely to be left behind and abandoned, with this risk being amplified by the inaccessibility of evacuation centres. As part of the COVID-19 response to improve hand hygiene and access to water, sanitation and hygiene, UNICEF partnered with Pacific Disability Forum and the Fiji Disabled Persons Federation to assess and improve the accessibility of WASH services in schools and community and public buildings in Fiji.

Project outputs

Working with organizations of persons with disabilities, the project empowered them at every stage, from decision-making to data collection. The leadership and participation of persons with disabilities led to the identification of WASH barriers and the creation of targeted materials and guidance that continue to be used in the Pacific to improve the accessibility of WASH facilities in schools and community, village and government buildings.

Inclusive actions

- **Formal partnerships** with organizations of persons with disabilities (OPD)

- **Continuous consultation** with persons with disabilities through their representative OPD

- **Assessment** of the knowledge of and access to handwashing of persons with disabilities

- **Accessibility assessment** of WASH facilities

Positive outcomes and impacts

- Improving the accessibility of public buildings used as evacuation centres.

- Following the assessment of over 30 WASH facilities across 10 provinces, PDF and FDPF conducted a prioritization exercise to identify facilities for retrofitting to improve accessibility. Criteria for selection were developed in a participatory way with the persons with disabilities during the enumerator training.

- Scaling up the disability-inclusive WASH knowledge and lessons learned in the region.

- To ensure that the technical knowledge about accessibility of WASH facilities and tools developed, as well as lessons learned from the accessibility audits and infrastructure consultation, extended beyond the project, PDF developed three guidelines targeting different types of WASH facilities: schools, community or village areas, and public areas. The guides are designed for the context of the Pacific Islands and Territories and continue to be used by PDF in their ongoing projects throughout the Pacific region.

Read more
- Project field note

← Return to Strengthening the enabling environment

Partnering with persons with disabilities in WASH design and construction in Timor-Leste

Case study on participatory processes in WASH development

© UNICEF

Location

Timor-Leste

Duration

2012-2022

Partners

UNICEF, Associacao Naroman Ba Futuro
(Light for the Future Association)

Life cycle stage

Delivery

Target groups

Persons with disabilities

Background & objectives

At the time of the emergence of COVID-19, Timor-Leste was progressing towards achieving nationwide basic water and sanitation services by the end of 2025. However, there had not been progress in allocating resources to implement provisions for persons with disabilities, especially pertaining to WASH infrastructure. The pandemic further restricted access to basic WASH services for persons with disabilities. This was particularly the case when accessing public, common and shared facilities. Persons with disabilities faced increased vulnerability due to the pandemic, and that resulted in greater exclusion and isolation. Improving the accessibility of infrastructure, including WASH facilities, in public places is critical to ensure persons with disabilities can participate equally in society. Renewed attention and resources for WASH infrastructure improvements provided an opportunity to address both the longstanding and immediate deprivations and barriers, including those related to disability.

UNICEF established a team of five young engineers to create new designs that included disability accessibility. However, it soon became apparent that it would be important to involve persons with disabilities to better understand their WASH needs and preferences. As a result, in 2021 UNICEF established a collaborative partnership with an organization of persons with disabilities (OPD), Associacao Naroman Ba Futuro (ANBF), or Light for the Future Association.

Project outputs

Partnering with an organization of persons with disabilities in Timor-Leste provided the UNICEF WASH programme with essential skills and expertise to strengthen the accessibility of new and existing WASH infrastructure. Persons with different types of disabilities teamed up with UNICEF WASH engineers to assess infrastructure, providing firsthand user insights and recommendations for the designs. Working with the WASH team had a catalytic impact, with the scope of the partnership being expanded to also assess and improve the accessibility of youth centres and the office of the Secretary of State for Youth and Sports (SSYS) in Timor-Leste.

Inclusive actions

- **Formal partnership** with an organization of persons with disabilities
- **Close collaboration** between construction/WASH engineers and persons with disabilities
- **Continuous consultation** with persons with different types of disabilities

Positive outcomes and impacts

- Three youth centres and improvements to the office of the Secretary of State for Youth and Sports (SSYS) have costed improvement plans with provisions for disability and gender inclusion based on firsthand user experiences and feedback from persons with disabilities.

- The SSYS office, including the WASH facilities, is a more inclusive and accessible centre for girls and boys with disabilities. The accessibility improvements have removed barriers for young people with disabilities to participate in youth activism in future emergency responses.

- Further, UNICEF worked with the SSYS to develop a guidance on the rights to participation of adolescents and youth with disabilities in Timor-Leste. The guidance identifies barriers to participation and provides practical guidance for identifying and facilitating meaningful participation of adolescents and youth with disabilities.

- Access to WASH facilities in public places, like markets, for men and women with disabilities was assessed and improvements made, which will support the participation of persons with disabilities in society.

- One public market has a new disability-accessible toilet block (with three cubicles), a new child-friendly and disability-accessible handwashing station (with four taps) and an improved water storage and distribution system. Having accessible handwashing stations in public locations can reduce illness for persons with disabilities and improve their health and well-being, as well as their equal participation in the community.

- Seven Community Health Centres (CHCs) have new disability-accessible and gender segregated toilet blocks (each with two cubicles), new child-friendly and disability-accessible handwashing stations (each

with four taps) and improved water storage and distribution systems. In addition, minor improvements have been undertaken to enhance the accessibility of WASH facilities in 17 more CHCs. Accessible WASH facilities in healthcare centres are a critical component of ensuring that persons with disabilities can access quality healthcare on an equal basis with others.

- Two entry points along the border between Indonesia and Timor-Leste have new disability-accessible and gender segregated toilet blocks (each with seven cubicles and six urinals), two new child-friendly and disability-accessible handwashing stations (each with six taps) and improved water storage and distribution systems. Quality assurance visits were conducted following the completion of construction.

- The new WASH facility designs for markets, CHCs and entry points included disability inclusion and gender-sensitive considerations based on the lived experiences of and feedback from persons with disabilities.

Read more
- Project field note

← Return to Strengthening the enabling environment

Improvement of water supply equipment management capacity for the establishment of peace in Mindanao

Case study on contributing to peacebuilding through inclusive WASH

© ILO

Location

11 barangays in 3 provinces in the Bangsamoro Autonomous Region in Muslim Mindanao (BARMM), Philippines

Duration

2019-2022

Partners

Bangsamoro Transition Authority, Office of the Presidential Adviser for the Peace Process, concerned line ministries/departments, Local Government Units (LGUs), Bangsamoro Development Agency, A Single Drop for Safe Water, community-based organizations (CBOs), government of Japan, Task Force for Decommissioned Combatants and their Communities, Mindanao Development Authority, Ministry of Labour and Employment, Technical Education and Skills Development Authority, Elementary School Teacher-Parent Associations, ILO/EIIP Technical Assistance Team

Life cycle stage

Planning, Delivery, Management

Target groups

Conflict-affected and displaced vulnerable and marginalized youth, indigenous peoples, women, men, persons with disabilities, and returning combatants in 11 communities in the most water-insecure barangays in the BARMM – including workers from the communities

Background & objectives

The project was designed within the overall framework of lasting peace, security and prosperity in the BARMM. The BARMM region is the poorest region in the Philippines, with average poverty incidence at 61.3 per cent in 2018. The project was implemented in the 11 most water-insecure barangays in the poorest provinces in the BARMM (over 70 per cent poverty incidence), where 80 to 99 per cent of households were water insecure and were affected by the decades-long armed conflict between the government and liberation groups.

While the conflict officially ended in 2014, violent incidents still occur. Improving livelihood conditions, reducing poverty, and providing employment opportunities and skills for the affected marginalized and vulnerable communities are considered very important in progressing the Bangsamoro peace process.

The project aimed to:

1. Contribute to the improvement of livelihood conditions and poverty reduction in conflict-affected marginalized and vulnerable communities – through improved access to safe and reliable water supply and sanitation services and the creation of decent employment opportunities – for the conflict-affected rural population of BARMM.

2. Build capacities at LGU and community levels for the coordination, management, planning, design, procurement, implementation, and operation and maintenance of investments in community-based water supply systems, using a replicable model based on participatory and local resource-based approaches and work methods.

3. Develop functional community-based water supply systems that meet people's needs, are operational, and have adequate and sustainable operation and maintenance arrangements.

Project outputs

- Drinking water systems in 11 rural barangays were successfully constructed (including green works for the protection of water sources and watersheds) and operationalized.

- 6,700 households (approximately 40,000 people) benefitting from improved WASH facilities.

- 6,100 schoolchildren across 8 elementary schools in rural areas benefitting from improved WASH facilities at school.

- 61,000 short-term decent employment opportunities provided for about 3,250 workers from among the targeted beneficiaries (of whom 27 per cent were women) in the WASH construction activities. Accident, health and third party liability insurance were provided to the workers and community contractors, and comprehensive occupational, safety and health (OSH) provisions were made available.

- Community contractors (with 39 per cent of participants being women) were established and capacitated. These community contractors successfully implemented the construction works. A total of 53 men and 10 women plumbers and masons from among the community contractors received technical skills training.

- Functional CBOs were strengthened or established for the O&M of the water systems, and these O&M systems were operationalized.

- The capacities of LGUs, community contractors and CBOs were strengthened for the planning, design, costing, implementation and O&M of WASH systems.

Inclusive actions

- **Inclusive participatory proce sses** took place at various levels:
  - At policy level, all concerned and responsible stakeholders of the transitional government were included in consultations about the overall design and approach of the project, and the identification, prioritization and selection of the water systems.
  - At local government level, the LGUs and communities and their representatives, and other concerned stakeholders (like landowners who owned the water source or the land where the physical infrastructure was to be constructed) were closely involved and engaged in consultations and decision-making.
  - At community level, the CBOs played a key role and were actively involved throughout the entire duration of the project in decision-making and in the establishment of operation and maintenance systems for the operation of the constructed WASH facilities. To ensure inclusiveness in participation and decision-making, the various target groups of beneficiaries were equitably represented.

- **Adherence to the ILO Decent Work Agenda,** including social protection, social dialogue, rights at work and decent employment.

- **Capacity development** for long-term sustainability of outcomes to ensure that the achieved outputs and outcomes could be maintained, including the development of capacities among key implementing partners like the LGUs, CBOs and community contractors.

- **Environmentally sustainable approaches** – including viable O&M systems and the protection of water sources and watersheds, as well as the use of replicable local resource-based work methods and technologies (including the use of solar energy) that also optimized opportunities for the engagement of local people (green works) – were applied in the project.

Positive outcomes and impacts

The project successfully contributed to the improvement of livelihood conditions and poverty reduction in conflict-affected, marginalized and vulnerable communities in the BARMM through improved and expanded access to WASH facilities and the creation of decent employment opportunities, thereby contributing positively to the ongoing peace process. The project also capacitated LGUs, CBOs and community contractors regarding the coordination, management, planning, design, procurement, implementation, and O&M of investments in WASH systems, using a replicable model based on inclusive, participatory, employment-intensive and environmentally sustainable approaches.

Apart from these achievements, notable successes of the project in terms of outcomes and impacts included:

- 50-100 per cent of time saved that would otherwise be spent collecting drinking water in the targeted communities.

- A viable model for inclusive and sustainable development of WASH facilities, including its community-based O&M, was successfully demonstrated. The model was positively received among donors, policymakers, the local government, and communities, and can serve as a blueprint for further WASH development in the BARMM and beyond.

- Through its well-balanced, inclusive and conflict-sensitive approach in a fragile and complex context, the project was able to successfully facilitate dialogue and consultations between a wide range of stakeholders at various levels. This proved to be critical to the success of the project.

Read more
- Read more about the project

← Return to Prioritizing inclusive solutions

Wastewater collection and treatment facilities for the District General Hospital of Vavuniya

Case study on prioritizing affordable sanitation solutions

© UNOPS

Location
Vavuniya,
Sri Lanka

Duration
2012-2018

Partners
UNOPS, European Union-funded Support to District Development Programme, government of Sri Lanka, Central Environmental Authority

Life cycle stage
Planning, Delivery, Management

Target groups
Patients, staff and surrounding communities, farmers, internally displaced people

Background & objectives

The District General Hospital of Vavuniya is a critical hospital that provides healthcare services for up to 5,000 people each day in the Northern Province of Sri Lanka. The site is congested, partly due to several semi-permanent facilities that were constructed to accommodate an influx of internally displaced people during the civil war.

The hospital's sanitation system consisted of flush toilets that discharged to over 100 septic tanks and soakaways, while the wastewater from over 500 handwashing basins and other washing facilities discharged to surface water drains or to the ground. The septic tanks and soakaways were routinely overloaded and clogged, requiring six tanker trips a day to empty. Meanwhile, the wastewater discharged to the ground and surface water carried pathogens which contaminated irrigation canals and stormwater drains, posing health risks to both patients and the local community.

The objective of the project was to improve the sanitation system for the hospital to reduce health risks to patients and the local community.

Project outputs

- Design and construction of a sewage and wastewater collection and treatment system to treat 140 cubic metres of effluent per day, which was previously discharged to surface water sources and an agricultural water network.

- Decommissioning of 100+ broken septic tanks and soakaways.

- Connection of 500+ greywater pipes and toilets to a simplified sewerage system.

- Design and construction of three large septic tanks, a 2 km solids-free sewer, waste stabilization ponds, and a wetland – all of which met local and international requirements – to receive the treated effluent.

Inclusive actions

- **Engagement of communities and civil society organizations:** Several workshops and meetings were conducted with the local communities, farmer organizations, community-based organizations and government agencies regarding the project to ensure that the community was aware of the scope, benefits and environmental aspects of the project. Community support groups were formed for the construction of drainage and culverts.

- **Conducting feasibility studies to determine appropriate solutions:** During the planning stage, one option for the sanitation system was to use a conventional system, which relied on pumps and mechanical solutions. After conducting feasibility studies, it was determined that this option may still pose health risks for the nearby housing areas due to the congested site. An alternative design solution was proposed, which included treating the wastewater off-site through a simpler aerobic oxidation pond system.

- **Designing for long-term affordability of operations and maintenance:** The alternative design solution involved a simplified sewerage system that is able to collect all sewage from the hospital site, using gravity to transfer wastewater to open oxidation ponds off-site. This solution reduces the maintenance and operational costs while improving the sustainability, safety and reliability of the sanitation system, as it does not require mechanical plants, pumps or chemicals to be used. It also requires minimal maintenance that can be conducted by non-specialist staff.

- **Capacity building:** A workshop was conducted to identify capacity building activities to support the sustainable operation of the sanitation system. Awareness programmes were held with relevant hospital and government staff on how to maintain the new system. Capacity building was also conducted with the Vavuniya urban council on sustainable wastewater and solid waste management practices.

- **Public awareness programmes for sustainable WASH and solid waste management:** Awareness programmes were held with students, teachers, school staff, clubs, hospital staff and visitors, as well as community members, regarding the importance of handwashing, solid waste management and proper use of toilets.

Read more
- [Read more about this project](#)

Positive outcomes and impacts

- Around 6,800 hospital users each day and more than 400,000 people in the wider hospital catchment area directly benefitted from a cleaner and safer hospital environment.

- There were 2,000 fewer tanker trips transporting sludge per year, resulting in a 95 per cent reduction in carbon emissions.

- Reduced hospital spending on the operations and maintenance of the sanitation system.

- Twenty labourers were provided with a National Vocational Qualification certification to improve their employability.

← **Return to Prioritizing inclusive solutions**

Design manual for friendly and accessible emergency WASH facilities for menstrual hygiene management

Case study on inclusive design for emergency WASH services

© Lebanese Red Cross

Location

Global

Duration

2020-2022

Partners

Elrha, Arup, The International Federation of Red Cross and Red Crescent Societies (IFRC), British Red Cross, Lebanese Red Cross

Life cycle stage

Planning, Delivery

Target groups

Persons with disabilities, women and girls, refugees and internally displaced people

Background & objectives

Emergency WASH facilities are often based on standard designs which do not meet the specific needs of women or persons with disabilities. To address this challenge, a design manual was developed that can be followed during the acute phase of an emergency to ensure the quick implementation of facilities that are appropriate for women, girls and persons with disabilities. The manual provides guidance on implementing three template designs for WASH facilities that meet the needs of persons with disabilities who menstruate: a trench latrine block, a raised latrine block and a bathing block.

Project outputs

A manual that allows field practitioners to plan and implement inclusive communal sanitation and bathing facilities in the acute initial emergency response phase (four to five months immediately following a sudden-onset disaster or emergency).

Inclusive actions

- **Context-adaptable solutions:** The solutions presented in the manual are intended to be adaptable for a wide range of contexts. The manual includes guidance to assess the needs of target communities and local site constraints and adapt the designs accordingly.

- **User-centric and participatory approach:** The development of these solutions followed a user-centric approach. Focus groups with potential end users were held to understand their needs and the main challenges they face in managing their periods in a humanitarian context.

- **Integration of field practitioners' diverse knowledge:** WASH and shelter practitioners were engaged throughout the design process to understand the main barriers and challenges perceived when designing and implementing WASH facilities that meet the needs of people who menstruate.

Positive outcomes and impacts

One design for communal sanitation facilities was piloted in a refugee camp in Lebanon, with very positive feedback from practitioners who built the facilities following the manual, and from users. The British Red Cross is currently using the manual to train their Emergency Response Unit, which deploys worldwide.

Read more

- Read more about this project

← Return to Delivering inclusive solutions well

Improving public health, sanitation and dignity in major cities in Bangladesh

Case study on delivering and maintaining inclusive public toilets

© WaterAid

Location

Dhaka, Khulna, Chattogram, Sylhet, Rajshahi, Panchagarh and Ishwardi, Bangladesh

Duration

2014-2026

Partners

WaterAid, Kimberly-Clark, H&M Foundation, Swedish International Development Cooperation Agency, Dushtha Shasthya Kendra, SAJIDA Foundation, Bhumijo, Nabolok, Eco-social Development Organization, Dhaka South City Corporation, Dhaka North City Corporation, Khulna Development Authority, Chattogram City Corporation, Bangladesh Railways and Local Government Division, government of Bangladesh

Life cycle stage

Planning, Delivery, Management

Target groups

Children, youth, older people, persons with disabilities, women and girls, LGBTIQ+ people, indigenous peoples, people living in poverty, commuters, street dwellers and working people

Background & objectives

WaterAid seeks to scale up the impact of the improved public
sanitation services with special priority for women and persons
with disabilities, limited-income populations and commuters.
The project is expected to contribute to the improvement of
city environments and reduce public health risks. Additionally,
WaterAid is committed to enhancing the capacity and expertise
of the service providers operating in the public sanitation sectors.

Project outputs

WaterAid Bangladesh collaborated with city authorities in 5 cities
and Bangladesh Railways to construct a total of 44 public toilets. These
women-friendly facilities have been consciously designed to be inclusive,
ensuring the comfort and convenience of all users.

The project outputs include:

- Construction of public toilets along with O&M support

- Business model development for long-term sustainability

- Awareness raising and social mobilization to promote the use
  of public toilets

- Capacity building of service providers and other stakeholders
  to improve the management of public toilet services

- Advocacy for inclusion of public toilets as an essential city
  service by the local government institutions

- Formulation of operational guidelines and the National Policy
  on Public Toilet Construction, Operation and Management

Inclusive actions

- **Accessible design features** of the public toilets include ramps,
  handrails and other assistive devices, as well as a dedicated toilet
  facility for persons with disabilities.

- **Gender responsive features:**
  - To improve the safety and security of these facilities, attendants
    were hired and 24/7 CCTV surveillance systems were installed
    (outside the toilets) to allow women to use the toilets without
    fear even at high-traffic times and at night. A total of 107
    attendants are working in the public toilets, and among them,
    77 attendants are female
  - Separate blocks for male and female users and persons with
    disabilities (urination and defecation)
  - Separate handwashing and bathing facilities for male and
    female users
  - Provision of menstrual hygiene management (MHM) facilities
    and hygiene kits (soap, tissue, sanitary pads, etc.)
  - Childcare space

- **Sustainability and health-related features:**
  - Safe drinking water facility
  - Effective air ventilation facilities for smell control
  - Uninterrupted electricity supply
  - Rainwater harvesting
  - Use of solar energy
  - Gardening or green zone

- **Features that support diverse needs:**
  - Ablution space
  - Locker facility
  - Multipurpose structure for alternative income

Positive outcomes and impacts

These public toilets have been used around 24 million times (21 million times by male users and 3 million times by female users). The presence of dedicated female caretakers in each facility has proven to be revolutionary, empowering women to overcome their fear and embrace services that were previously overlooked or avoided.

The construction of these public toilets has not only transformed how people view these facilities, but also demonstrated the enormous potential for providing improved public sanitation services to city dwellers. Consequently, other city authorities have been inspired by the breakthrough initiative, enabling them to make their own efforts to improve the public sanitation landscape.

WaterAid Bangladesh goes beyond its on-ground work by actively engaging in advocacy initiatives. One notable endeavour includes providing unwavering support to both city corporations in Dhaka, assisting them in developing and endorsing a comprehensive Public Toilet Operation Guideline. Moreover, WaterAid Bangladesh actively advocates for the prioritization of decent public toilets, amplifying the significance of this issue within various city corporations and railway stations. Currently, WaterAid is supporting the Bangladesh government in developing the National Policy on Public Toilet Construction, Operation and Management.

← **Return to Delivering inclusive solutions well**

Hygiene Behaviour Change Coalition (HBCC) 2

Case study on accessibility and safety audits of WASH facilities

© WaterAid

Location

Bardiya District,
Lumbini Province,
Nepal

Duration

2020-2023

Partners

Unilever, UK Foreign, Commonwealth and Development Office, and WaterAid

Life cycle stage

Planning, Delivery, Management

Target groups

Children, older people, persons with disabilities, women and girls

Background & objectives

Handwashing with soap and water is a critical intervention to prevent the transmission of COVID-19 and other WASH-related illnesses. The HBCC 2 project supported the improvement of the accessibility and safety of existing and new hand hygiene infrastructure in public places such as healthcare facilities, public markets, workplaces and bus terminals in Nepal.

The handwashing facilities were delivered and rehabilitated alongside behaviour change interventions to promote use and maintenance of the handwashing facilities and strengthen sustainability and COVID-19 vaccine uptake. Building on previous COVID-19 and HBCC work, the project looked at strengthening the monitoring, operation and maintenance of existing handwashing facilities to ensure long-term functionality.

The project aimed to remove all barriers to the accessibility and safety of the surroundings to improve their inclusiveness in order to leave no one behind. As such, the main target groups included persons with disabilities, pregnant women, older people and children. Mass media campaigns and community face-to-face campaigns were carried out with the active engagement of the government to improve the COVID-19 vaccination and response programme.

Project outputs

Through the HBCC 2 project, 105 existing handwashing facilities were rehabilitated and an additional 50 were constructed in healthcare facilities and schools. These handwashing facilities were rehabilitated and constructed in line with the results of accessibility and safety audits and findings from consultation meetings with representatives of persons with disabilities, older persons, children, pregnant women, the local government and other stakeholders.

The sustainability of these handwashing facilities was improved and strengthened through structured and participatory monitoring carried out by the project team and local government using standard monitoring and quality assurance tools.

The technical capacity of the local government and management of healthcare facilities were strengthened through training in operations and maintenance of the handwashing facilities. This training resulted in costed maintenance plans for the handwashing facilities and clear roles and responsibilities for all relevant stakeholders.

Inclusive actions

- **Participatory processes:** The rapid changing and challenging resurgence of COVID-19 variants increased the risk of infection for excluded and vulnerable groups. However, as there was pressure to respond quickly during the initial response, the design of handwashing facilities was not adequately informed by the needs of these vulnerable groups. As such, the HBCC 2 project built on previous response work and conducted **participatory accessibility and safety audits** of the existing handwashing facilities. Also, intentional and structured **consultation meetings** were conducted with representatives from different marginalized groups – which are persons with disabilities, people with different impairments, older people, children and pregnant women – as well as local government officers and other stakeholders.

- **Adapting the results of participatory processes into the design:** The results of the audits exposed the barriers and limitations in the existing handwashing facilities, some of which resulted in underutilization. These barriers included: handwashing facilities being located in far and inconvenient locations, pathways being

unsuitable for users of wheelchairs and crutches, and taps, basins and soap dispensers being difficult to reach and use for children, older people and people with physical impairments. Based on the findings, the designs for the handwashing facilities were improved to be more inclusive in nature, durable, appropriate for the local populace and attractive to encourage use.

- Some of the handwashing facilities were relocated to more accessible locations within the healthcare facilities. This also encouraged handwashing since these locations are near toilets and the entrances of the healthcare facilities.
- The pathways were improved to allow wheelchairs to move with ease.
- The pedal-operated taps were replaced with taps installed at a level that can be reached by everyone and easily operated.
- The soap dispensers were replaced with ones that were easier to use.
- Basin heights were lowered to ensure everyone is able to easily wash both hands and reach them with ease.
- The improved facility design accommodated the installation of cues and nudges to remind users about proper handwashing.

Positive outcomes and impacts

The involvement of the various stakeholders and the vulnerable and excluded groups' representatives revealed the magnitude of the barriers in existing handwashing facilities and the severity of their impact on the concerned groups. Therefore, the new designs were improved to be inclusive and embedded the sustainability of these handwashing facilities to sustain handwashing routines and habits. Costed operations and maintenance plans were developed for these handwashing facilities.

The accessibility and safety audits also contributed to raising awareness of duty bearers, the government and other stakeholders about the key considerations when constructing inclusive handwashing facilities. Thus, they adopted the participatory accessibility and safety audit tool to improve existing handwashing facilities and inform new constructions, and shift from conventional service delivery to be intentionally inclusive in their approach.

The relocation of the handwashing facilities greatly improved all users' handwashing within the healthcare facilities. A total of 92 per cent of the 155 handwashing facilities are fully functional. As the remaining 8 per cent are partially functional because they have an inconsistent supply of soap, their management bodies are currently being supported by other WASH partners to consistently supply soap for proper and effective handwashing for full utilization of the handwashing facilities in the healthcare facilities and schools.

Deliver life to mothers, girls and children in the Southern Region of Malawi

Case study on rehabilitating WASH facilities for inclusion

© WaterAid

Location

Machinga and Zomba Districts, Southern Region, Malawi

Duration

2018-2024

Partners

WaterAid, Amref Health Africa, National Initiative for Civic Education, Machinga and Zomba District Councils, Ministry of Agriculture, Ministry of Water and Sanitation, Ministry of Health, Ministry of Gender, Children, Disability and Social Welfare, Scottish government, Scottish Water

Life cycle stage

Planning, Delivery, Management

Target groups

Children, persons with disabilities, women and girls, and people living in poverty

Background & objectives

Improving the health of women, adolescent girls and under-five children living in low-income rural and urban areas of Malawi by facilitating increased access to sustainable safe water and adoption of improved sanitation and good hygiene behaviour in their communities, at healthcare facilities (HCFs), and in early childhood development centres (ECDC) in Malawi.

Project outputs

- Construction/rehabilitation of water supply systems and sanitation and hygiene facilities in targeted ECDCs, HCFs and communities.

- WASH and infection prevention promotion in targeted HCFs.

- Building capacity and supporting women, adolescent girls and their communities to engage with duty bearers for improved WASH in HCFs, ECDCs and their communities.

Inclusive actions

During the project planning phase, WaterAid conducted site visits and held **focus group discussions** with community members (including women, girls, and persons with disabilities), local leadership, district council representatives and project partners to define challenges that various community members face due to a lack of access to adequate WASH, and to discuss suitable ways of addressing them.

At baseline, the project conducted a **Vulnerability Mapping study** followed by a **community-led participatory vulnerability analysis.** From both exercises, the following vulnerable groups were identified: persons with disabilities, older people, boys and girls, women, people

living with HIV, and teen mothers. The challenges they faced included a lack of disability-friendly WASH facilities, lack of gender segregated sanitation facilities in some HCFs, and limited capacity and accountability of duty bearers in responding to the community needs.

Using **rights-based approaches,** the project raised awareness of the rights to water, sanitation and health, as well as other related rights. Women, adolescent girls and persons with disabilities were actively involved in decision-making processes in community-level project activities. Women have taken up leadership positions in women's action groups (WAGs), Water Point Committees, HCFs and as hygiene promoters. The WAGs have improved the patients' and clients' use of medical services and have also been working with teen mothers who dropped out of school to encourage them to return.

A **consultative process** involving a cross section of users informed the design of WASH infrastructure, to ensure that the WASH services provided met the needs of all intended users, including identified vulnerable groups. The design took into account the following adaptive measures: provision of ramps (in the case of latrines and waterpoints), wide entrances to accommodate wheelchair users, smaller drop hole sizes in the case of sanitation facilities in ECDCs, disability-friendly latrines, and menstrual hygiene management facilities. The locations of the facilities considered the security and safety of users, especially women and children.

Positive outcomes and impacts

- Collaboration between the Ministry of Gender, Children, Disability and Social Welfare, Ministry of Health, Ministry of Water and Sanitation, Ministry of Education, Federation of Disability Organizations in Malawi (FEDOMA), and other ECD-focused organizations has led to harmonized ECD WASH standards and guidelines, which are now being disseminated for wider application.

- The capacities of women's action groups and health centre management committees have been built to champion the community's needs.

- The interventions have improved inclusive WASH facilities in four HCFs in Machinga, especially in the maternity ward, where water is a vital resource during childbirth. The health facility in Kawinga has been able to open its maternity service wing for the first time since it was built ten years ago. It remained closed due to the unavailability of water at the facility. Awareness of the need for inclusive WASH infrastructure designs in HCFs has increased.

← Return to Maximizing systems performance

ACTION CHECKLIST: Civil society organizations

Developing the enabling environment for inclusive WASH

1. Amplify the voices of the most marginalized groups in policymaking and WASH infrastructure development processes

☐ Gather evidence of the WASH exclusion faced by marginalized groups through surveys, opinion polls, focus group discussions, key informant interviews and community consultation, among other methods.

☐ Conduct an analysis to identify the appropriate entry points for message dissemination within the WASH policy development process.

☐ Conduct a stakeholder analysis or audience mapping, and adjust messaging in order to ensure that the message is relevant for the intended audience.

☐ Create partnerships with national and local governments, other civil society organizations, academia, the private sector and the media in order to amplify the message.

☐ Disseminate the key messages for the target audiences at more effective times with relevant partners to amplify the message.

2. Advocate for inclusion across the life cycle of WASH infrastructure development

☐ Identify and understand the underlying issues faced by women and marginalized groups due to WASH exclusion. Conduct a context or problem analysis, such as through a problem analysis tree or by using systems dynamics.

☐ Build a strong case by: collecting credible evidence about the issue, illustrating a clear plan of action for change, clearly articulating the positive and negative impacts of existing WASH systems and any changes being proposed, and connecting the issue with domestic and international frameworks on human rights and social inclusion.

☐ Advocate for the diverse needs of women and marginalized groups, particularly those who may face challenges in doing so themselves, during consultations and participatory processes within WASH infrastructure development.

Read more

- Tips on how to advocate for inclusive policy: A Guide to Being an Effective Advocate for Gender Equality, International Institute for Democracy and Electoral Assistance, 2022.
- Advocate for infrastructure accessibility according to the Convention on the Rights of Persons with Disabilities: Toolkit on Accessibility: Advocacy for Accessibility, UNICEF, 2022.
- Conducting GESI analysis for CSOs: The gender and social inclusion toolkit, Civicus.
- Freshwater Conservation and WASH Advocacy Strategy Workshop: Facilitator's Guide, Africa Biodiversity Collaborative Group and International Water and Sanitation Centre (IRC), 2020.
- Consider the Community-Led Total Sanitation (CLTS) approach:
  - Handbook on Community-Led Total Sanitation, Plan UK and Institute of Development Studies at the University of Sussex, 2008.
  - Additional CLTS resources from The Sanitation Learning Hub.

← Return to Strengthening the enabling environment

ACTION CHECKLIST: Civil society organizations
Operate and maintain inclusive WASH assets and services

1. **Work with communities and the local government to maintain WASH assets and promote safe hygiene practices**

   ☐ Conduct consultations with the local community, government and other stakeholders regarding the maintenance of WASH assets.

   ☐ Where relevant, establish a community WASH committee and provide adequate training for the expected roles responsibilities.

   ☐ Carry out hygiene promotion campaigns to raise awareness in the community about the proper use, cleaning and maintenance of WASH assets.

← Return to Operations & Maintenance

ACTION CHECKLIST: Governments

Developing the enabling environment – policies and frameworks

1. **Establish policies, regulations and legal frameworks to support an integrated, cross-sectoral and participatory approach to addressing WASH-related exclusion**

   ☐ Ensure that there are adequate governance frameworks to support effective horizontal and vertical inter-sectoral and intra-sectoral coordination and information sharing between public, private and third-sector stakeholders, including NGOs and CSOs that work with and support specific marginalized groups for an inclusive approach to addressing WASH-related exclusion.

   ☐ Examine power imbalances between different stakeholders to identify gaps in representation and introduce measures to ensure that marginalized people are able to meaningfully participate in decision-making processes.

   ☐ Align WASH policies and other sectoral policies with national policies on poverty reduction and inclusive socioeconomic development. These policies should provide frameworks to prioritize coordinated investments addressing the needs of women and marginalized groups.

   ☐ Develop cross-cutting laws and regulations to ensure that WASH development does no harm and supports integrated water resource management (IWRM). This can include laws protecting the environment and indigenous heritage, as well as laws on just land acquisition and compensation that protect informal settlers from displacement without relocation.

   ☐ Mobilize collective action, and collaborate with civil society and non-governmental organizations on the issue of land management for inclusive WASH services.

   ☐ Develop regulations and legal frameworks for working with small-scale providers, and establish decentralized WASH systems.

2. **Assess, develop and reform policy, regulatory and legal frameworks for the development of inclusive WASH services**

   ☐ Define overarching WASH policy objectives with an intersectional lens and with the active participation of women and marginalized groups.

   ☐ Conduct an analysis to identify gaps in the policy, regulatory and legal frameworks with respect to the newly defined WASH policy objectives.

   ☐ Develop and reform policy, regulatory and legislative frameworks to ensure that WASH policies, planning processes, design standards, and regulatory and legal frameworks align with the new WASH policy objectives to respect human rights and support the global sustainability, resilience and inclusion agenda. This can include frameworks that enshrine universal access standards, gender-responsive concepts (e.g., equal rights to water and sanitation) and climate action commitments in WASH infrastructure development and operations.

   ☐ Establish a budget line for the development and reform of policy, regulatory and legislative frameworks and for the well-resourced implementation of any accompanied actions.

   ☐ Establish a monitoring and reporting process to communicate about progress with key stakeholders.

   ☐ Establish a process for the regular review of policy, regulatory and legislative frameworks (e.g., every 10 years) to ensure they are kept up to date based on new approaches and thinking.

   ☐ Provide policy support for the development of integrated water and sanitation networks across regions and between countries with shared water resources.

   ☐ Develop mechanisms for enabling inclusive WASH in areas of conflict and unrest.

   ☐ Enact legislation recognizing that water and sanitation should be treated as public goods, and not primarily as economic goods. This would prohibit water supply disconnection in occupied housing and regulate against the construction of substandard housing without adequate toilets, among other measures.

☐ Innovate and develop context-specific approaches to the regularization and recognition of informal settlements, or land tenure schemes that will enable inclusive WASH services.

3. Develop policy frameworks to improve participation, transparency and accountability in WASH infrastructure processes

☐ Develop legal frameworks to institutionalize meaningful participation of women and marginalized groups in co-creation processes and decision-making across the life cycle of infrastructure development.

☐ Develop policies to establish, maintain and improve disaggregated data collection that can support informed WASH policy decisions.

☐ Develop mechanisms for policy assessment, monitoring, compliance and enforcement, in a manner that respects human rights.

☐ Ensure that policies and regulations for public procurement enhance transparency and accountability, eliminate corruption and pursue inclusive objectives.

☐ Develop legislation that supports contracting of small local contractors and communities, the use of employment-intensive work methods, and contract conditions for WASH infrastructure works that reflect the principles of decent work, equal access to employment opportunities for all and equal pay for work of equal value.

☐ Ensure that policy frameworks indicate clear roles and responsibilities of different stakeholders, such as WASH operators and service providers, including in the informal sector, in operationalizing inclusive WASH.

☐ Encourage inclusive hiring policies in all organizations, including in government and the private sector, to promote balanced representation of women and men in the workforce, and ensure non-discrimination and reasonable accommodation for marginalized groups.

4. Create and enforce regulations for inclusion requirements throughout the entire WASH project life cycle

☐ Incorporate inclusion requirements in project prioritization selection criteria when developing a pipeline of WASH projects.

☐ Require that during project preparation, socioeconomic impact studies are included as part of project feasibility studies.

☐ Require that inclusive outcomes and project objectives are part of the project preparation brief.

☐ Require that inclusive outcomes are supported throughout the concept design stage.

☐ Develop and adopt design standards that support inclusive outcomes.

☐ Develop and promote the use of guidance that translates inclusive design codes and standards into easy-to-follow guidance.

☐ Create permitting processes that screen for inclusive outcomes and reject non-compliant projects.

☐ Develop and enforce regulations for accountability regarding safety in construction, water safety standards, and environmental and social safeguards.

☐ Develop and enforce operational performance standards that have use targets for all.

Read more
- Reform laws and policies towards providing inclusive water and sanitation: The WASH Regulation (WASHREG) Approach, Stockholm International Water Institute, UNICEF, World Health Organization (WHO) and Inter-American Development Bank (IDB), 2021.
- Seven practical lessons for WASH systems strengthening from the SusWASH programme, WaterAid, 2022.
- Conduct water governance assessments: User's Guide on Assessing Water Governance, UNDP, 2015.
- Mainstreaming disability and making WASH programmes inclusive, Knowledge,

Evidence and Learning for Development, 2018.

- Advocate for infrastructure accessibility according to the Convention on the Rights of Persons with Disabilities: Toolkit on Accessibility: Advocacy for Accessibility, UNICEF, 2022.
- Guidance note: Disability Inclusive WASH Practices – Including people with disabilities in UNICEF Water, Sanitation and Hygiene (WASH) Programming, UNICEF.
- Reform public procurement policies for transparency: OECD Recommendation of the Council on Public Procurement, Organisation for Economic Co-operation and Development (OECD), 2015.
- A tool for governments to mainstream gender considerations in infrastructure development: Toolkit for Mainstreaming and Implementing Gender Equality 2023, OECD, 2023, pp. 85-94.
- Employment-intensive infrastructure programmes: labour policies and practices, ILO, 1998.

ACTION CHECKLIST: Governments
Developing the enabling environment – capacity building

5. **Assess and strengthen capacity for inclusive WASH infrastructure development and planning**

☐ Assess capacity requirements, capacity gaps, and capacity absorption limits across the different stakeholder groups. Consider the need to engage external technical or financial assistance.

☐ Ensure adequate staff, technical skills, funding, equipment and facilities are available to conduct effective disaggregated data collection, participatory consultations, capacity building activities and enforcement of inclusive regulations.

☐ Integrate inclusion considerations into the structure and delivery of training, with a particular focus on providing a supportive environment for the participation of women, persons with disabilities and marginalized groups in training activities.

☐ Improve the capacity of national, regional and local governments to adopt and enforce the policy frameworks for inclusive WASH development.

☐ Provide training and resources (including hiring technical experts) to conduct social and environmental impact assessments of WASH systems across all life cycle stages.

☐ Provide training for local communities on how to engage in participatory processes and consultations.

6. Build awareness of and sensitivity to gender equality and social inclusion in WASH infrastructure development and WASH practices

☐ Develop diverse teams that will bring their own perspectives to WASH planning, delivery and management.

☐ Build awareness of GESI concepts in WASH in project teams, partners and suppliers to ensure projects are implemented in an inclusive manner.

☐ Conduct public awareness campaigns to improve public attitudes and sensitivity towards the needs of women, persons with disabilities, and other marginalized groups in WASH, and to promote awareness of inclusive WASH policies, schemes and projects.

Read more

- Assess government capacity to plan, deliver and manage infrastructure: Capacity Assessment Tool for Infrastructure (CAT-I), UNOPS.
- Assess current GESI capacity: Gender Equality and Social Inclusion Self-Assessment Tool, Water for Women Fund and Sanitation Learning Hub, 2021.
- Promote inclusive and diverse teams and workplaces: Inclusive water, sanitation and hygiene (WASH) workplaces – guidance for the WASH sector, Institute for Sustainable Futures, University of Technology Sydney, 2021.
- Improve GESI awareness and sensitivity:
  - Tools for awareness raising and self-assessment: Equality, non-discrimination and inclusion toolkit, WaterAid, 2018.
  - Tools for social and behaviour change communication: Menstrual Health and Hygiene Resource Package: Tools and Resources for Task Teams, World Bank, 2021.
  - Self-paced course on disability: Disability in the workplace, ILO.
  - Inclusion of lesbian, gay, bisexual, transgender, intersex and queer (LGBTIQ+) persons in the world of work: A learning guide, ILO, 2022.

- Training on inclusive WASH:
  - Taking action to achieve inclusive WASH, UNICEF.
  - Online training for Sanitation Safety Planning, WHO.
- Training on inclusive budgeting:
  - Gender Responsive Budgeting, UN Women.
  - Gender Responsive Budgeting in Practice: A Training Manual, United Nations Population Fund (UNFPA) and United Nations Development Fund for Women, 2006.
- Build technical capacity for inclusive WASH implementation:
  - Building Local Government Capacity for Rural Infrastructure Works, ILO, 2003.
  - ILO Guide for Skills Development in Employment-Intensive Investment Programmes, ILO, 2021.
  - Sustainable community-managed and labour-based upgrading of urban low-income settlements, ILO, 2002.
  - Online training courses for practitioners and policymakers on incorporating decent work principles in infrastructure development: ILO International Training Centre (ITC)

← Return to Strengthening the enabling environment

ACTION CHECKLIST: Governments

Planning inclusive WASH systems

1. **Establish the right conditions so that women and marginalized groups can meaningfully participate in the planning process and influence decisions**

   ☐ Ensure that there are adequate and diverse staff, technical skills, funding, equipment and facilities to conduct effective participatory consultations with diverse stakeholder groups.

   ☐ Consider whether particular efforts may be needed to include the voices of key stakeholder groups, such as engaging local CSOs or women's rights organizations to facilitate their participation or using alternative communication methods.

2. **Leverage cross-sectoral strategies to ensure integrated approaches to tackling WASH exclusion issues, such as aligning IWRM approaches with water and sanitation infrastructure planning**

   ☐ Use cross-sectoral approaches to identify and address WASH exclusion issues.

   ☐ Ensure that the planning of WASH infrastructure is well coordinated with integrated water resource management approaches, as well as spatial and land use planning, stormwater management, environmental protection, energy and digital communications, public safety, women's affairs and social welfare.

   ☐ Conduct Integrated Rural Accessibility Planning (IRAP) to improve inclusive WASH access in rural areas.

Read more

- Use participatory data gathering and consultation techniques:
  - Ensure accessibility of consultations and events: Toolkit on Accessibility: Organization of Accessible Events, UNICEF, 2022.
  - Women's participation in fragile settings: Beyond Consultations: A tool for meaningfully engaging with women in fragile and conflict-affected states, Gaps UK, Women for Women, Amnesty International, Womankind Worldwide, and Saferworld.
  - Engage older people: Let's go! Steps for engaging older people and improving communities for all ages, Pan American Health Organization, HelpAge International and AARP, 2022; and Participatory research with older people: a sourcebook, HelpAge International, 2011.
  - Guidance note: Disability Inclusive WASH Practices – Including people with disabilities in UNICEF Water, Sanitation and Hygiene (WASH) Programming, UNICEF.
- Conduct Rapid Action Learning (RAL) workshops: Convening and Facilitating Rapid Action Learning Workshops, Institute of Development Studies and Water Supply and Sanitation Collaborative Council, 2018.
- Consider the Community-Led Total Sanitation (CLTS) approach:
  - Handbook on Community-Led Total Sanitation, Plan UK and Institute of Development Studies at the University of Sussex, 2008.
  - Additional CLTS resources from The Sanitation Learning Hub.
- Improve WASH access in rural areas:
  - Improving Access in Rural Areas: Guidelines for Integrated Rural Accessibility Planning (IRAP), ILO, 2003.
  - Guides for Integrated Rural Access Planning and Community Contracting in the Water and Sanitation sector, ILO.

← Return to WASH infrastructure planning

ACTION CHECKLIST: Governments

Prioritizing and preparing projects for investment

1. Develop and prioritize WASH projects with inclusive outcomes, aligning with the strategic priorities for sustainability, resilience and inclusion

☐ Based on the assessments of different projects, prioritize WASH pipeline projects that improve equity for women and marginalized groups.

☐ Use Multi-Criteria Decision Analysis (MCDA) as a decision-making tool to analyze multiple (conflicting) social, environmental and financial criteria to help prioritize infrastructure projects. Ensure that criteria are weighted according to the social and environmental commitments outlined in the WASH strategy and plans.

☐ Develop a business case for inclusive WASH projects.

2. Develop an investment plan that considers the long-term costs of inclusive projects

☐ Examine spending on WASH services specifically aimed at women and marginalized groups to see if it is sufficient to meet their needs and requirements.

☐ Apply an inclusive and gender-responsive budgeting approach to establish a budget line for the well-resourced implementation of inclusive actions within WASH projects.

☐ Match each action in national and regional WASH plans with a budget line and secure long-term funding to ensure adequate maintenance over the operational lifetime of WASH assets.

☐ Provide transparent accounting of the annual investment priorities set over a multi-year period for WASH services, reflecting how the diverse needs of women and marginalized groups are addressed and prioritized.

3. Identify financiers who support inclusive projects and determine their requirements for effective and competitive project preparation

☐ Identify financing partners and funding opportunities that favour inclusion indicators, local job creation and social development.

☐ Engage donors and development partners to support inclusive infrastructure projects.

Read more

- Guidance note: Disability Inclusive WASH Practices – Including people with disabilities in UNICEF Water, Sanitation and Hygiene (WASH) Programming, UNICEF.
- Articulate the business case on inclusive WASH:
  - Advocating for investment in accessible and inclusive WASH, UNICEF, 2018.
  - Improve the viability of water and sanitation business models: Innovating Business Models, Sustainable Sanitation and Water Management (SSWM) Toolbox.
- Techniques to optimize finance for affordable projects: Affordability and Optimising Finance, Global Infrastructure Hub, 2019.
- Use multi-criteria decision analysis to prioritize projects: Prioritizing Infrastructure Investment: A Framework for Government Decision Making, World Bank, 2016.
- Creating jobs through public investment, ILO, 2018.
- Inclusive budgeting guidelines:
  - Socially inclusive & gender responsive budgeting, Swiss Agency for Development and Cooperation SDC, 2019.
  - Gender-Responsive Budgeting in Asia and the Pacific: Key Concepts and Good Practices, United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), 2018.
  - Handbook on Costing Gender Equality, UN Women, 2015.
- Identify funding strategies and opportunities:
  - Climate Finance for the WASH Sector in Asia-Pacific, Water for Women, 2023.
  - Financing and Financing Water Impact, SSWM Toolbox.
  - Developing water, sanitation and hygiene (WASH) finance strategies: a guide, UNICEF, Sanitation and Water for All, Agence Française de Développement and IRC, 2022.

- Funding Options: Alternative financing for infrastructure development, Deloitte, 2013.
- Financing for gender equality, UN Women.

• Engage donors and development partners to develop or implement organizational policies on disability and accessibility: Toolkit on Accessibility: Advocacy for Accessibility, UNICEF, 2022, p. 25.

← Return to Prioritization, preparation and investment

ACTION CHECKLIST: WASH planners and designers
Planning inclusive WASH systems

1. Work with residents and local NGOs to identify and address existing WASH inequalities

☐ Make use of expert and non-expert knowledge, lived experiences and spatial data (minimally disaggregated data by sex, age, income and disability) to identify gaps in inclusive WASH service provision. Account for inequalities in access across and within the entire network or catchment area, across different facilities and in the distribution of water and sanitation services.

☐ Identify where existing WASH infrastructure can be improved, renovated or better integrated towards ensuring improved access for diverse people.

☐ Examine the need for public WASH facilities such as water fountains and toilets in public spaces.

☐ When collecting and analyzing data, focus on the Theory of Change to identify what changes in behaviours, knowledge, skills, attitudes and beliefs of users, service providers, planning authorities and other stakeholders are necessary to plan, implement and sustain inclusive WASH infrastructure effectively.

2. Use disaggregated data, participatory consultations and context assessments to identify diverse WASH needs

☐ Compile an inventory of available data and identify gaps that need to be filled.

☐ When collecting and analyzing data, focus on the Theory of Change to identify what changes in behaviours, knowledge, skills, attitudes and beliefs of users, service providers, planning authorities and other stakeholders are necessary to plan, implement and sustain inclusive WASH infrastructure effectively.

☐ Carefully employ ethical data principles in the collection, storage, communication and dissemination of data.

☐ Use household surveys to collect data on diverse WASH needs and preferences, disaggregated by sex, age, income and disability, when relevant and applicable.

☐ Encode the disaggregated data in spatial maps to identify the spatial distribution of WASH needs when possible.

☐ Identify communities and neighbourhoods that do not equally benefit from current WASH infrastructure investments, and invite them to participate in consultations about their needs and challenges.

☐ Conduct focus group discussions with civil society organizations representing women and marginalized groups in order to verify intersectional WASH needs that may not be apparent through quantitative data.

☐ Analyze the data and conduct context assessments to identify context-specific requirements and suitable locations for new or renovated WASH infrastructure.

Read more
- Collect disaggregated data:
  - Practical Guidebook On Data Disaggregation for the Sustainable Development Goals, Asian Development Bank (ADB), 2021.
  - Guidelines on the collection of sex-disaggregated water data, United Nations Educational, Scientific and Cultural Organization (UNESCO), 2019.
  - Guidance Note on Disability Inclusive WASH Programme Data Collection, Monitoring and Reporting, UNICEF, 2021.
- Analyze WASH needs and gaps:
  - Accessibility and safety audits, WaterAid and Loughborough University Water Engineering and Development Centre.
  - Understanding and addressing equality, non-discrimination and inclusion in water, sanitation and hygiene (WASH) work, WaterAid, 2018.
  - Integrate a GESI lens while conducting research and analyzing results: Integrating gender and social equality into sustainable development research: A guidance note, Stockholm Environment Institute (SEI), 2018.
  - Doing Qualitative Research for Development Programming: A step-by-step guide, The Asia Foundation, 2023.
  - The measurement and monitoring of water supply, sanitation and hygiene (WASH) affordability: a missing element of monitoring of Sustainable Development Goal (SDG) Targets 6.1 and 6.2, UNICEF and WHO, 2021.

- Identify WASH challenges and solutions through participatory approaches: Community Leave No One Behind: A Handbook for Practitioners, The Sanitation Learning Hub and Institute of Development Studies, 2021.
- Assess gaps in menstrual hygiene management (MHM) in emergencies:
  - Focus Group Discussion Guide – Assessment, IFRC.
  - Checklist: Minimum Standards For Inclusive, MHM-Friendly Latrines, IFRC, 2019.
  - Checklist: Minimum Standards For Inclusive, MHM-Friendly Bathing Areas, IFRC, 2019.
  - Checklist: Minimum Standards For Inclusive, MHM-Friendly Solid Waste Facilities, IFRC, 2019.

3. **Develop and evaluate WASH planning options based on sustainable, resilient and inclusive outcomes**

☐ Based on the identified gaps, future trends and population growth projections, create a long-term WASH strategy with inclusive goals, aligned with climate and sustainability strategies. Understand and apply inclusive provisions as stipulated in policies, regulations and laws regarding WASH inclusion.

☐ In alignment with the WASH strategy, develop medium-term plans for WASH infrastructure coordinated with land use plans, development plans and other sectoral plans. Ensure that these plans incorporate provisions for inclusion, sustainability and resilience, such as considerations for universal design, crime prevention, gender-responsive design, water quality, as well as green and sustainable solutions.

☐ Engage relevant specialists to conduct a Strategic Environmental Assessment (SEA) and Equality/Diversity Impact Assessment to assess strategic options and towards achieving overall goals for sustainability, resilience and inclusion.

☐ Identify adverse climate risks and vulnerability through a Climate Risk and Vulnerability Assessment of existing systems and water sources. Identify possible measures for improving the climate resilience of WASH systems, such as addressing the need for additional water collection and storage infrastructure.

☐ Clearly outline the roles, responsibilities and coordination mechanisms between different actors involved in the planning, implementation, monitoring and long-term operation of WASH infrastructure systems.

☐ Indicate specific capacity requirements needed to implement the WASH strategy and plans and how these will be resourced and strengthened.

☐ Outline inclusive implementation approaches that should be prioritized when delivering infrastructure projects, such as the use of participatory planning, employment-intensive and local resource-based work methods, and sustainable construction technologies and materials.

Read more
- Integrate GESI in water and sanitation infrastructure planning:
  - Programming and Planning Frameworks, SSWM Toolbox.
  - Integrating Gender Equality and Social Inclusion in WASH and IWRM: A Quick Guide for Practitioners, PRO-WASH, 2022.
  - Equality and non-discrimination (EQND) in sanitation programmes at scale, Frontiers of CLTS: Innovations and Insights 10, Institute of Development Studies, 2017.
  - Power analysis tools for WASH governance, WaterAid and Freshwater Action Network.
  - Surface Water Management in Humanitarian Contexts, ARUP, 2019.
- Ensure the safety of WASH networks and water quality:
  - Sanitation safety planning: Step-by step risk management for safely managed sanitation systems, second edition, WHO, 2022.
  - Water safety plan manual: step-by-step risk management for drinking-water suppliers, second edition, WHO, 2023.

- Identify inclusive implementation approaches:
  - Community Infrastructure in Urban Areas: Creating jobs while improving low-income settlements, ILO, 2020.
  - Local investments for climate change adaptation: Green jobs through green works, ILO, 2011.
- Conduct assessments to support decision-making and evaluation:
  - Determine the broader impacts of development interventions: Locating the Unintended Consequences of Interventions: A Tool for Analysing Impact Inequality in Development Programming, SEI, 2023.

← **Return to WASH infrastructure planning**

👆 **ACTION CHECKLIST: WASH planners and designers**
Prioritizing and preparing projects for investment

1. **Conduct assessments to narrow down inclusive WASH projects for prioritization, and exclude projects with unmitigable negative impacts**

   ☐ Explore the history of WASH projects in the area and the reasons they succeeded or failed.

   ☐ Conduct an Equity Assessment, Strategic Environmental Assessment (SEA), Equality/Diversity Impact Assessment and Social Cost-Benefit Analysis (SCBA) to rank possible projects according to benefits and costs.

   ☐ Conduct technical, environmental and social pre-feasibility assessments of projects. Verify if there is financial and technical capacity to deliver the project within the planned timelines.

   ☐ Create an exclusion list of proposed projects that have been determined through assessments to cause irreversible or unmitigable negative impacts on the environment or people.

   Read more
   - Conduct assessments to narrow down WASH projects:
     - Conduct hazard and climate risk assessments: Risk Assessments for WASH, UNICEF and Global Water Partnership, 2017.
     - Conduct social analysis: Social Analysis Sourcebook: incorporating social dimensions into Bank supported projects, World Bank.
     - Determine the broader impacts of development interventions: Locating the Unintended Consequences of Interventions: A Tool for Analysing Impact Inequality in Development Programming, SEI, 2023.
     - Compare risk and hazards with exposure and vulnerability criteria in countries around the world: Global Systemic Risk Assessment Tool, Oxford Programme for Sustainable Infrastructure Systems, University of Oxford.

2. **Assess the intersectional WASH needs of stakeholders and beneficiaries to ensure that the project improves WASH access for marginalized groups**

   ☐ Complete a stakeholder analysis that uses an intersectional approach to identify the needs of different community members. Continue to expand the analysis based on emerging information.

   ☐ Identify how WASH services are currently used. Assess how these can be made more equitable for different users, based on stakeholder consultations and an intersectional analysis of disaggregated data on WASH needs and preferences.

   ☐ Assess safety and the risk (both actual and perceived) of crime and sexual harassment within and on the routes to WASH facilities.

   ☐ Consider the climate change vulnerability of target communities, and how that affects the performance of WASH infrastructure (e.g., droughts causing water scarcity, flooding in low-lying areas).

   Read more
   - Assess current WASH resources: Exploring Tools, SSWM Toolbox.
   - Determine WASH gaps in the community:
     - Community WASH needs Assessment Guide, Centre for Affordable Water and Sanitation, 2022.
     - Conducting disability inclusive baseline assessments for Community-level WASH Projects, WaterAid, Christian Blind Mission (CBM) and WorldVision, 2016.
     - Menstrual Health and Hygiene Resource Package: Tools and Resources for Task Teams, International Bank for Reconstruction and Development/The World Bank, 2021.
     - Community Leave No One Behind: Handbook for Practitioners, The Sanitation Learning Hub and Institute of Development Studies, 2021.
   - Consider the Community-Led Total Sanitation (CLTS) approach:
     - Handbook on Community-Led Total Sanitation, Plan UK and Institute of Development Studies at the University of Sussex, 2008.
     - Additional CLTS resources from The Sanitation Learning Hub.

- Assess gender considerations for developing climate-adaptive WASH projects: Her4Climate tool, ARUP and Cities Alliance, 2022.
- Integrate a GESI lens in the analysis of data: Integrating gender and social equality into sustainable development research: A guidance note, SEI, 2018.

3. **Design the project concept and theory of change to achieve inclusive outcomes for WASH users, employees and affected communities, and incorporate the principles of universal design and reasonable accommodation**

☐ Design the project's concept and theory of change towards addressing the diverse WASH needs of women and marginalized groups, and with consideration for the sustainability and resilience of the WASH asset or service against climate change, disasters and conflict. Incorporate the principles of universal design and reasonable accommodation into the concept.

☐ Understand and apply inclusive provisions as stipulated in policies, regulations and laws regarding WASH inclusion.

☐ During site selection, consider the different safety and WASH needs of women, men, children and marginalized groups who will use the WASH asset, and ensure that it is located in an area that is widely accessible and culturally appropriate and provides safe and secure access for all users.

☐ Make design choices towards developing systems that will be easy to interact with for all users, and operate and maintain by all employees, with a preference for solutions that require less effort.

☐ Plan for cost-effective, accessible WASH features.

☐ Coordinate with relevant authorities regarding existing and future land use planning to effectively address the current, interim and future access and WASH needs of affected communities.

☐ Determine the approaches to be used for inclusive implementation, such as employment-intensive and local resource-based approaches, and how this affects the design and planning of the project.

Read more
- Design the project concept according to inclusive principles:
  - Plan for affordable WASH services: Affordable WASH services and products, SSWM Toolbox.
  - Consider labour-intensive WASH technologies and solutions: Inclusive innovation and service delivery, SSWM Toolbox.

4. **Analyze and evaluate project feasibility according to environmental, social and economic impacts and co-benefits**

☐ Review the socioeconomic context of the project, including local culture, norms and values in relation to the use of WASH services, as well as social and gender inequalities.

☐ Determine the project's potential risks and negative impacts on the local community and the environment, including the possibility of perpetuating existing inequalities, discrimination against particular groups, human rights violations, risks to women's safety, disruption of informal WASH networks and environmental risks.

☐ Identify any health, safety and environmental impacts and how these will be mitigated, managed and addressed.

☐ Consider any inequalities in how communities access ecosystem services and natural resources, and the possibility that project activities could impact access to and management of these natural resources.

☐ Identify whether project activities could adversely impact tangible or intangible cultural and natural heritage or ecosystem services.

☐ When there are no options to mitigate and prevent major negative impacts on local communities, the environment and/or marginalized groups, projects should be declared unfeasible.

Read more

- Conduct social analysis: Social Analysis Sourcebook: incorporating social dimensions into Bank supported projects, World Bank.
- Assess impact on employment: Employment Impact Assessment (EmpIA), ILO, 2021.
- Guide for Monitoring Employment and Conducting Employment Impact Assessments (EmpIA) of Infrastructure Investments, ILO, 2020.
- How to integrate environmental and social safeguards across the project cycle: Environmental and social safeguards guidelines, ILO, 2022.
- Determine the broader impacts of development interventions: Locating the Unintended Consequences of Interventions: A Tool for Analysing Impact Inequality in Development Programming, SEI, 2023.
- Community health, safety and security: Environmental and social safeguards guidelines, ILO, 2022, pp. 11-13.

← Return to Prioritization, preparation and investment

👆 **ACTION CHECKLIST: WASH planners and designers**
Design inclusive WASH projects

1. Incorporate the results of participatory and co-creative processes in the design

☐ Based on the participatory consultations, identify specific detailed design features that are required to provide inclusive WASH for women and marginalized groups, with consideration to affected stakeholders.

☐ Conduct design workshops to co-create, discuss and agree upon design features with the targeted beneficiaries and affected stakeholders.

☐ Take into consideration the local culture, norms and values that impact the use of WASH infrastructure facilities.

2. Integrate design approaches that promote inclusion together with efforts to achieve sustainability and resilience

☐ Design projects to incorporate inclusion, climate resilience and sustainability, for example through the use of nature-based solutions for water filtration and stormwater retention. Understand and apply inclusive provisions as stipulated in policies, regulations and laws regarding WASH inclusion.

☐ Ensure the project design respects existing institutions, establishments, and natural and cultural heritage.

3. Design the project concept to achieve inclusive outcomes for WASH users, employees and affected communities

☐ Use design codes and standards that are aligned with international best practices, support the needs of all identified end users, protect the local environment and address local hazards.

☐ Consider the security and safety of all users, specifically that of marginalized groups and women in all their diversity, while planning the site layout of the infrastructure project.

☐ Ensure that the design and site selection consider how diverse groups living, working, studying and playing near the WASH infrastructure will be impacted by construction and operations and maintenance activities.

☐ Ensure that the design and site selection consider the impact on transverse travel paths, which may need controlled crossings, pedestrian crossings and required essential facilities.

☐ Optimize the design of the WASH project to reduce future operational and maintenance costs, which affects the affordability of the WASH service.

☐ Design considering the existing capacity to operate and maintain systems (avoid high complexity) and define the types of capacity building that will need to be provided to operators.

Read more
- Conduct participatory design and co-creation processes:
  - Reflecting on Water and Sanitation infrastructure: A toolkit for WASH practitioners on gender and socially inclusive participatory design approaches in urban informal settlements, Moschonas et al., Monash University, 2022.
  - Identify WASH challenges and solutions through participatory approaches: Community Leave No One Behind: Handbook for Practitioners, The Sanitation Learning Hub and Institute of Development Studies, 2021.
- Incorporate accessibility features in WASH: Accessible and Inclusive Design Handbook, Médecins Sans Frontières.
- Incorporate gender-responsive design for menstrual health and hygiene:
  - Menstrual Health and Hygiene Resource Package: Tools and Resources for Task Teams, International Bank for Reconstruction and Development/The World Bank, 2021.
  - Menstrual Disposal, Waste Management & Laundering in Emergencies: A Compendium, Columbia University and International Rescue Committee, 2020.

- - Female-friendly public and community toilets: a guide for planners and decision makers, WaterAid, Water & Sanitation for the Urban Poor, and UNICEF, 2018.
  - A Toolkit for Integrating Menstrual Hygiene Management (MHM) into Humanitarian Response, Columbia University and International Rescue Committee, 2017.
  - Guidelines and tools for menstrual hygiene management, IFRC Watsan Mission Assistant.
- Guidelines for the construction of institutional and public toilets, WaterAid, 2019.
- Learning from Experience: Guidelines for locally sourced and cost-effective strategies to modify existing household toilets and water access, World Vision and CBM Australia, 2018.
- Design safe public toilets and WASH facilities: Crime Prevention Through Environmental Design Guidebook, Crime Prevention Through Environmental Design (CPTED), 2003.
- Incorporate inclusive implementation into design approaches: Decent Work in Nature-based Solutions 2022, ILO, United Nations Environment Programme (UNEP) and International Union for Conservation of Nature, 2022.

← Return to Design

ACTION CHECKLIST: Project managers and teams
Preparing projects for investment

1. **Conduct continuous participatory consultations and co-creative processes with local communities and civil society organizations to inform project definition, resolve land conflicts and address context-specific WASH needs**

   ☐ Engage participatory design and community consultation experts to support and inform the participatory process.

   ☐ Use disaggregated data to identify key stakeholder groups that should be engaged in consultations, particularly underrepresented groups.

   ☐ Conduct a gender and power analysis to determine appropriate methods of engagement with respect to sociopolitical dynamics. Consider whether particular efforts may be needed to include the voices of key stakeholder groups, such as engaging local CSOs to facilitate their participation, using alternative communication methods, or conducting consultations in different places and group sizes.

   ☐ Coordinate with local governments, CSOs, local businesses and other community-based organizations to ensure an integrated approach to information gathering.

   ☐ Carry out consultations and focus group discussions with users and CSOs in each community affected by the WASH infrastructure in order to understand the needs and perspectives of different users, particularly women and marginalized groups.

   ☐ Consider using participatory data gathering techniques to inform the planning of the WASH project, such as participatory mapping of water collection patterns in the community. Consider using the citizen-science approach, or employing and training local residents as data collectors and project advocates.

   ☐ Use participatory and human rights-based methods to mediate and resolve any conflicts over land that is planned to be used for the WASH project.

   ☐ Include the understanding of sociocultural practices related to water and sanitation in assessments.

☐ Improve the motivation, opportunities and ability of target users to use a proposed WASH solution in order to improve community acceptance and create demand for the water and sanitation project.

Read more
- Carry out a gender and power analysis before conducting consultations: Integrating gender equality into water, sanitation and hygiene projects - guidance for NGOs and implementing partners, WaterAid, 2022, p. 40.
- Conduct Rapid Action Learning (RAL) workshops: Convening and Facilitating Rapid Action Learning Workshops for the Swachh Bharat Mission-Gramin (SBM-G), Institute of Development Studies and Water Supply and Sanitation Collaborative Council, 2018.
- Align with international standards on community engagement: Minimum quality standards and indicators in community engagement, UNICEF, 2020.
- Conduct participatory and co-creative processes:
  - WaSH: Integrated Social Empowerment Toolkit for Community WaSH and Wellbeing – W:ISE Toolkit Handbook, United Nations University Institute for Water, Environment and Health, 2015.
  - Decision Making, SSWM Toolbox.
- Ensure that women and marginalized groups can meaningfully participate:
  - Toolkit on Accessibility: Organization of Accessible Events, UNICEF, 2022.
  - Beyond Consultations: A tool for meaningfully engaging with women in fragile and conflict-affected states, Gaps UK, Women for Women, Amnesty International, Womankind Worldwide, and Saferworld.
  - Let's go! Steps for engaging older people and improving communities for all ages, HelpAge, 2022.
  - Participatory research with older people: a sourcebook, HelpAge, 2011.
  - Participatory approaches for gender-sensitive research design, CGIAR, 2014.
- Create demand for the water and sanitation project: Demand Creation Tools, SSWM Toolbox.
- Deal with land conflicts in an inclusive and participatory manner: Dealing with Conflict, Chapter 9 of *Advancing inclusive land governance,* Both ENDS, 2020.

2. Incorporate inclusion targets and objectives in the project brief

☐ Incorporate inclusion objectives within the project brief, including targets, constraints and required standards or international best practices for inclusive design and implementation to be followed.

☐ Align the project objectives with strategic targets for inclusive, sustainable and resilient WASH.

☐ Conduct a Social Cost-Benefit Analysis (SCBA) to quantify the intangible social benefits of the project such as environmental impacts, time savings, health and well-being benefits, and accident costs.

☐ Conduct studies of the target stakeholders' ability and willingness to pay for the WASH service to determine whether financial subsidies are necessary to improve the affordability of the WASH service.

☐ Identify whether the project can be used to offer short-term employment to provide immediate cash opportunities to communities affected by disasters.

Read more
- Prepare a project proposal: Project Design, SSWM Toolbox.
- Conduct a Social Cost-Benefit Analysis: Valuation Techniques for Social Cost-Benefit Analysis, HM Treasury and UK Department for Work and Pensions, 2011.
- Guidance note: Disability Inclusive WASH Practices – Including people with disabilities in UNICEF Water, Sanitation and Hygiene (WASH) Programming, UNICEF.
- Identify if the project can provide short-term employment in response to shocks and stresses:
  - Disaster-affected communities: Emergency employment, ILO, 2021.
  - Communities in fragile and conflict-affected contexts: How to design, monitor and evaluate peacebuilding results in Jobs for Peace and Resilience programmes, ILO, 2019.
  - In response to pandemics such as COVID-19: Technical note on water, sanitation and health (WASH) interventions in response to COVID-19, ILO, 2020.

← Return to Prioritization, preparation and investment

ACTION CHECKLIST: Project managers and teams
Planning and mobilizing for project delivery

1. **Mobilize capacity to create and deliver on inclusive targets, including hiring GESI specialists and providing skills and capacity building to teams and private sector stakeholders**

☐ Engage GESI and accessibility specialists to ensure that all project activities and outputs are responsive to gender, age, disability, and other relevant social factors. GESI specialists should be included in planning all project activities, selecting social impact assessment indicators, carrying out a GESI analysis and developing a GESI Action Plan.

☐ Engage long-term GESI specialists in a geographical entity and/or project team to ensure that GESI Action Plans are implemented.

☐ Engage participatory design and community consultation experts to support and inform participatory processes.

☐ Ensure that the project team has the right people, resources, skills and capacity to effectively implement, monitor and evaluate project activities according to inclusive targets defined in the GESI Action Plan.

☐ Provide training for private sector stakeholders, such as designers, contractors and project managers, on integrating participatory processes and inclusive activities in implementation work.

☐ Consider the need to conduct capacity building activities at different levels on how to understand differentiated needs and implement inclusive approaches.

Read more
- Hire GESI specialists and accessibility consultants:
  - Generic terms of reference for Gender Expert (Project Design), United Nations Industrial Development Organization (UNIDO).
  - Toolkit on Accessibility: ToR - Accessibility Assessment Consultant (Section G: Accessibility Checklists), UNICEF, 2022.

- Improve the skills and capacity of the private sector stakeholders to engage in participatory and inclusive implementation:
  - Small-scale contractor development in the construction sector, ILO.
  - Developing the construction industry for employment-intensive infrastructure investments, ILO, 2019.

2. **Ensure that project budgets can support inclusive implementation through adequate allocation and ring-fencing of resources for inclusive activities**

☐ Allocate adequate financial resources for GESI-mainstreaming activities and incorporate considerations for an inclusive and gender-responsive budget that disaggregates expenditures minimally in terms of gender, age and disability, where possible.

☐ Allocate a budget for participation and engagement activities, including venue rental, printing, participation costs, and translation/interpretation costs.

☐ Consider the budget needed for inclusive implementation, such as the costs of social protection provisions, use of employment-intensive approaches, or providing reasonable accommodation at the worksite for workers with disabilities.

Read more
- Gender-responsive budgeting:
  - Engendering Budgets: A Practitioners' Guide to Understanding and Implementing Gender-Responsive Budgets, Commonwealth Secretariat, 2003.
  - Gender-Responsive Budgeting in Asia and the Pacific: Key Concepts and Good Practices, UNESCAP, 2018.
  - Handbook on Costing Gender Equality, UN Women, 2015.
- Conduct a Gender-Disaggregated Beneficiary Assessment and Gender-Disaggregated Expenditure Incidence Analysis: Part II in Guide on integrating gender throughout infrastructure project phases in Asia and the Pacific, UN Women and UNOPS, 2019.
- Socially inclusive & gender responsive budgeting, Swiss Agency for Development and Cooperation SDC, 2019.

- Training on gender-responsive budgeting:
  - Gender Responsive Budgeting, UN Women.
  - Gender Responsive Budgeting in Practice: A Training Manual, UNFPA, 2006.

3. Develop a GESI Action Plan with realistic targets, activities, indicators and appropriately allocated resources

☐ Review documents and lessons learned from similar projects or contexts to identify information that can inform the project, including successful and unsuccessful GESI activities.

☐ Formulate realistic targets linked to inclusion-related objectives and specific, measurable, achievable, relevant, and time-bound (SMART) indicators. Targets and strategies should enable step-by-step progress, bringing incremental changes and challenging the culture without threatening it. Targets should facilitate monitoring of participation and benefits.

☐ Ensure that the GESI Action Plan uses an intersectional and participatory approach and presents an evidence-based rationale for recommended activities directly linked to overall project objectives. These activities should support the intended project solution in addressing all users' diverse needs and requirements, such as accessibility, safety, security and well-being of women and marginalized groups.

☐ Plan empowerment activities for women and marginalized groups that can be undertaken as part of the project. These should also include activities to help other community members learn about and contribute to transforming harmful sociocultural norms that cause discrimination and social exclusion against women and marginalized groups.

☐ Define the resources (human and financial) required and capacity strengthening necessary to deliver the GESI Action Plan.

☐ Define clear monitoring and evaluation indicators and opportunities for participatory monitoring.

☐ In combination with the GESI Action Plan, prepare a Stakeholder Engagement Plan (SEP), Communication Plan (CP), Vulnerable Groups Plan (VGP), Grievance Redress Plan (GRP), Decent Work Plan (DWP) and Capacity Development Plan (CDP).

Depending on the outcome of the stakeholder analysis, it may also be necessary to include an Indigenous People Plan (IPP), a Resettlement Plan (RP), and/or a Disaster Risk Reduction (DRR) plan.

☐ Incorporate environmental and social safeguards within the project activities.

Read more

- Assess who needs to be included: The Social Inclusion Assessment Tool (SiAT), World Bank.
- How to integrate gender equity and social inclusion in design, monitoring, and evaluation (DME), World Vision, 2021.
- For humanitarian water and sanitation projects, apply the Sphere standards: The Sphere Handbook, Sphere, 2018.
- Identify activities and make a GESI Action Plan:
  - GESI Toolkit for Project Preparation, Climate Resilient Infrastructure Development Facility, 2019.
  - Violence, Gender & WASH: A practitioner's toolkit, WaterAid/Sanitation and Hygiene Applied Research For Equity (SHARE) Consortium.
  - UNIDO Guide to Gender Analysis and Gender Mainstreaming the Project Cycle, UNIDO, 2021.
  - Checklist for Gender Mainstreaming in the Infrastructure Sector, African Development Bank, 2009.
  - Employment-Intensive Investment Programme (EIIP): Environmental and social safeguards guidelines, ILO, 2022.
  - Guidance Note on Disability-Inclusive Project Management Cycle, UNESCAP, 2023.
  - SustainABLE tool, UNOPS.
- Identify activities for inclusive employment-intensive approaches:
  - Disability Inclusion in EIIP Stocktaking and way forward, ILO, 2022.
  - Illustrated Guidelines for Gender-responsive Employment Intensive Investment Programmes, ILO, 2016.
  - Towards the Right to Work: A guidebook for designing innovative Public Employment Programmes, ILO, 2012.

← Return to Project delivery planning and mobilization

ACTION CHECKLIST: Project managers and teams
Design inclusive WASH projects

1. Review and validate concept designs with the end users, especially women and marginalized groups, to ensure that they fulfill diverse WASH needs

☐ Involve and engage community members, local government officials, as well as other key stakeholders (e.g., CSOs and NGOs, and supply market), in consultations and the decision-making process to review and validate the concept designs of WASH infrastructure assets. Ensure that participants represent the community's diversity as identified in the stakeholder analysis.

☐ Update the concept designs with the WASH planners and designers to incorporate the findings of the review exercises until validation is achieved.

2. Ensure that participatory consultations are conducted in an inclusive and accessible manner

☐ Establish a community committee for ongoing consultation and monitoring. Ensure a balanced representation of all genders and adequate representation of marginalized groups within the community.

☐ Evaluate whether power imbalances or gender norms make it uncomfortable or negatively influence the ability of diverse stakeholders to participate in consultations meaningfully. Schedule separate workshops if necessary, in spaces where diverse participants can feel safe about voicing their opinions.

☐ Ensure that workshops are located in safe, convenient and easy-to-access areas.

☐ Schedule workshops at convenient times for all relevant stakeholders, including women and marginalized community members, so they can attend. Adapt the methods and schedules to accommodate the diverse needs of stakeholders, including taking a proactive approach to engage with 'hard-to-reach' communities.

☐ Consider using diverse and accessible communication techniques during consultations and workshops to ensure input is received from the majority of the concerned community, particularly women and marginalized community members. Where feasible, leverage technology and digital communication methods to enhance reach and accessibility.

Read more

- Conduct participatory and co-creative processes:
  - Ensure accessibility of consultations and events: Toolkit on Accessibility: Organization of Accessible Events, UNICEF, 2022.
  - Women's participation in fragile settings: Beyond Consultations: A tool for meaningfully engaging with women in fragile and conflict-affected states, Gaps UK, Women for Women, Amnesty International, Womankind Worldwide, and Saferworld.
  - Engage older people: Let's go! Steps for engaging older people and improving communities for all ages, HelpAge, 2022; and Participatory research with older people: a sourcebook, HelpAge, 2011.
  - Involve the local community in development: Local resource-based (LRB) approaches and community infrastructure, ILO, 2020; and Local Resource-Based Approaches in Water Works, ILO, 2019.

← Return to Design

ACTION CHECKLIST: Project managers and teams
Construct inclusive WASH projects

1. **Improve the capacity of project teams, contractors and labourers to implement inclusive construction practices and foster an inclusive workplace**

   ☐ Conduct skills training and capacity building for inclusive construction practices among project teams, contractors, labourers and construction supervisors.

   ☐ Conduct awareness and sensitivity training to promote an inclusive and non-discriminatory work environment for diverse groups.

   ☐ Contact educational institutions, such as local schools, to organize training programmes, internships and professional placements.

   Read more
   - Learn how to improve skills in employment-intensive infrastructure investment:
     - ILO Guide for Skills Development in Employment-Intensive Investment Programmes, ILO, 2021.
     - Developing the construction industry for employment-intensive infrastructure investments, ILO, 2019.
     - Site Supervisor Course for Labour-Based and Community-Managed Upgrading of Urban Low-Income Settlements – Supervisor's Site Reference Handbook, ILO, 2002.
   - Improve awareness and sensitivity for an inclusive workplace:
     - Inclusion of lesbian, gay, bisexual, transgender, intersex and queer (LGBTIQ+) persons in the world of work: A learning guide, ILO, 2022.
     - Illustrated guidelines for gender-responsive employment intensive investment programmes, ILO, 2016.

2. **Monitor, evaluate and learn from inclusion efforts**

   ☐ Plan, monitor and report on disaggregated indicators that specifically measure the achievement of inclusion criteria and relevant impact through both quantitative and qualitative data.

   ☐ Consider engaging a third-party monitoring agent, where relevant, or implement community-based monitoring to monitor environmental issues, inspect construction work and ensure transparency in projects.

   ☐ Engage local community members in participatory data collection, lessons learned workshops and post-closure evaluations of the project. Ensure that the sampling accurately represents the community.

   ☐ Train data collectors to be sensitive to gender, age and disability to help prevent bias.

   ☐ Determine if the delivery of the agreed project objectives and activities, and the GESI Action Plan in particular, sufficiently address the needs of women and marginalized groups.

   ☐ Document inclusion-related aspects of best practices and lessons learned so that they can be applied to new projects. Identify any gender-related benefits and achievements produced by the project using disaggregated data, indicators and statistics.

   Read more
   - Monitor, evaluate and learn from gender mainstreaming: Gender Monitoring, Evaluation & Learning Mainstreaming, Renewable Energy and Energy Efficiency Partnership, 2017.
   - Monitor employment impacts: Guide for Monitoring Employment and Conducting Employment Impact Assessments (EmpIA) of Infrastructure Investments, ILO, 2020.
   - Formulate inclusive indicators for results monitoring:
     - Guidelines on designing a gender-sensitive, results-based monitoring (RBM) system, Deutsche Gesellschaft für Internationale Zusammenarbeit, 2014.
     - Guidance Note on Disability-Inclusive Project Management Cycle, UNESCAP, 2021.
   - Enable community-based monitoring: Basic principles of Community-Based Monitoring, United Cities and Local Governments, 2014.
   - Conduct Rapid Action Learning (RAL) workshops: Convening and Facilitating Rapid Action Learning Workshops for the Swachh Bharat Mission-Gramin (SBM-G), Institute of Development Studies and Water Supply and Sanitation Collaborative Council, 2018.

3. Implement the GESI Action Plan and safeguards against negative social and environmental impacts of construction

☐ Engage long-term GESI specialists to ensure that the GESI Action Plan is completed, incorporated as part of the Implementation Plan, implemented accordingly, and reported against.

☐ Prepare and implement an Environmental and Social Management Plan, based on the results of Environmental and Social Impact Assessments, to minimize water, soil, air and noise pollution and carbon emissions.

☐ Refer to and adopt the technical specifications for the project design as per the relevant construction standards, considering reasonable accommodation, safety, gender-responsiveness and local context factors.

☐ Ensure that there is a proper redress mechanism for reporting and addressing any incident involving discrimination, sexual exploitation, sexual harassment, abuse of authority, or acts of gender-based violence by or towards any individual connected to the WASH project.

Read more

- How to integrate environmental and social safeguards across the project cycle: Environmental and social safeguards guidelines, ILO, 2022.
- Implement measures for protection from sexual exploitation, abuse and harassment (PSEAH) and to address gender-based violence:
  - PSEAH Implementation Quick Reference Handbook, CHS Alliance, 2020.
  - Addressing Gender-Based Violence and Harassment (GBVH) in the Construction Sector, CDC, European Bank for Reconstruction and Development (EBRD) and International Finance Corporation (IFC), 2020.
  - Sexual exploitation, abuse and harassment (SEAH) Infrastructure Tool, Department for International Development (DFID) Safeguarding Unit, Infrastructure & Cities for Economic Development (ICED), 2019.
- Protection of children and young people in infrastructure: DFAT Child Protection Guidance Note: Child Protection in Infrastructure Activities, Department of Foreign Affairs and Trade Australia (DFAT), 2020.

- Multilingual resource hub on safeguarding (English, French, Arabic, Kiswahili): Safeguarding Resource and Support Hub.

4. Engage stakeholders in transparent and participatory project implementation

☐ Prepare an effective communication strategy to disseminate critical information about the project, such as its scope, foreseen impacts, and expected benefits, to all stakeholders and the community in the area of influence. This strategy must allow all interested groups to participate and express their concerns regarding the project's development to facilitate corrective or complementary actions.

☐ Think about how to make communications accessible and inclusive. Consider the use of tactile information, multiple languages, different media formats, etc.

☐ Incorporate community consultations as a continuous process activity to facilitate better follow-up to the agreements established in the previous stages, and improve management of new problems related to project implementation across its area of influence.

☐ Engage representatives from different interest groups in the communities, the contractor, and the contracting agency to support the implementation of the GESI Action Plan. These representatives must be briefed or trained regarding their specific roles in monitoring compliance with social safeguards and in identifying and implementing corrective actions.

☐ Share periodical progress updates and monitoring reports with stakeholders to promote transparency.

← Return to Construction

ACTION CHECKLIST: Project managers and teams

Renovate, retrofit, repurpose and decommission assets

1. Repurpose old WASH infrastructure assets into more appropriate types of WASH, social or civic infrastructure that better serves communities

☐ Conduct studies of old WASH infrastructure assets to determine the possibility of repurposing them into other types of WASH infrastructure or social and civic infrastructure.

☐ Ensure alternative WASH options exist before repurposing the asset, especially if this is the primary WASH facility for marginalized groups.

2. Support inclusive decommissioning activities, including safe and inclusive waste management

☐ Ensure that there are alternative WASH options before decommissioning the asset, especially if this is the primary WASH facility for marginalized groups.

☐ Prioritize the recycling and reuse of construction materials recovered from decommissioned WASH assets.

☐ Ensure that waste management practices and work conditions are safe and inclusive for informal workers.

Read more

- Case study on repurposing old WASH infrastructure assets: The Story of How Medellin Turned Its Water Reservoirs into Public Parks, ArchDaily, 2020.
- Carry out asset recycling and material reuse:
  - Guidelines for Implementing Asset Recycling, World Bank.
  - Reuse of building products and materials – barriers and opportunities, Buildings As Material Banks, 2021.
  - Circular Economy of Construction and Demolition Waste: A Literature Review on Lessons, Challenges, and Benefits, Purchase, Callun Keith, et al., 2021. See Section 10. Frameworks and Model Approaches.
- Ensure inclusive waste management practices:
  - Gender Factsheet: Why Does Gender Matter in the Sound Management of Chemicals and Waste?, UNEP, 2022.
  - Gender and waste nexus: Experiences from Bhutan, Mongolia and Nepal, International Environmental Technology Centre (UNEP-IETC) and GRID-Arendal, 2019. Recommendations for interventions and tools on p. 77.
  - Gender and Recycling: Tools for Project Design and Implementation: Regional Initiative for Inclusive Recycling, IDB, 2013.

← Return to Renovating, Retrofitting, Repurposing, Decommissioning

ACTION CHECKLIST: Procurement officers
Planning and mobilizing for project delivery

1. **Conduct strategic procurement planning to ensure capacity to implement sustainable and inclusive procurement processes**

   ☐ Develop the procurement strategy and plan, taking into consideration the inclusive market preparedness of both suppliers and products.

   ☐ Assess and plan procurement officers' need for training in sustainable procurement and how to mainstream inclusion into procurement processes.

   ☐ Ensure early public notifications of the procurement plan and process.

   ☐ Ensure that procurement process methods include inclusion-related evaluation criteria in decision-making.

   ☐ When feasible, break a tender into several lots to allow small and medium-sized enterprises (SMEs) to bid for contracts.

   ☐ Ensure technical support is provided to suppliers to advance inclusion-related performance if required.

2. **Implement measures to ensure integrity and transparency in the procurement processes, especially for public WASH infrastructure projects**

   ☐ Review the context of the project to identify any risks to achieving inclusive and transparent procurement, including the level of corruption, level of competition, lack of technical capacity, and insufficient cultural awareness.

   ☐ Ensure that procurement processes for government-led WASH infrastructure projects are transparent to the public, guaranteeing that public funds support the affordability and quality of WASH services. This can be achieved through open data, e-procurement, professional capacity and integrity training of procurement officials, joint transparency initiatives between governments and bidders, and regular monitoring and evaluation reporting with easy and timely access to information and relevant documents.

Read more

- Diagnose and address corruption in WASH services: Improving Transparency, Integrity, and Accountability in Water Supply and Sanitation, The International Bank for Reconstruction and Development/The World Bank, 2009.
- Improve procurement transparency through open data: Open Contracting Data Standard (OCDS), Open Contracting Partnership.
- Inclusive Public Procurement Playbook, UNDP, 2022.
- Online training on inclusive procurement: How to Series 4: Mainstreaming Gender Equality in Procurement, UN Women Training Centre.

ACTION CHECKLIST: Procurement officers
Conduct inclusive procurement

1. **Ensure that underrepresented qualified suppliers are able to participate in the bidding process**

   ☐ Consider supplier engagement workshops, events and meetings (e.g., pre-bid, pre-contract, contract start-up and contract progress meetings).

   ☐ Conduct capacity building in how to participate in bidding processes (especially for underrepresented suppliers, such as businesses owned or operated by women, youth, and persons with disabilities).

   ☐ Advertise the tender through both traditional and non-traditional methods, including through local youth or women's business associations or networks.

   ☐ Consider and take measures that increase the participation and contracting of typically underrepresented suppliers, for example, businesses owned or operated by women, youth, and persons with disabilities. These measures can include limited competition, subcontracting, joint ventures and price preferences.

   ☐ Eliminate unduly restrictive requirements and/or liabilities without compromising the quality of the goods, works or services. Ensure there are appropriate securities, insurance and payment terms to eliminate potential barriers for micro-, small and medium-sized enterprises and youth- and women-owned businesses.

   ☐ Consider using the Short Form of Contract from the International Federation of Consulting Engineers (FIDIC) for works of relatively low capital value, as it reduces the time needed for its analysis. This particularly benefits SMEs, who have fewer resources at their disposal for the preparation of bids, and lessens the complexity of contract management.

   ☐ Track the percentage of project funds spent on typically underrepresented suppliers.

2. **Integrate inclusion conditions when formulating bid requirements, contract clauses and key performance indicators**

   ☐ Require core prime suppliers to have policies and mechanisms to implement and address GESI issues, such as equal pay for equal work, equal access to work opportunities, non-discrimination, protection from sexual exploitation, abuse and harassment (PSEAH), and prohibition of child labour and forced labour.

   ☐ Require core prime suppliers to have policies and mechanisms to address feedback, including mechanisms for alternative dispute resolution, grievance redress, and claim and complaint management.

   ☐ Ensure a local inclusive approach to site establishment (and access thereto) with positive engagement with the local community (e.g., capacity building, recruitment, awareness events).

   ☐ Create conditions for site establishment that require the contractor to maintain safe and inclusive site facilities.

   ☐ Encourage main contractors to use SMEs and local subcontractors, suppliers and locally available construction materials, as applicable. Where required, ensure that bidders have completed training in local resource-based (LRB) or employment-intensive approaches.

   ☐ Ensure that all inclusion-related requirements, including performance reporting, are clear for bidders.

   ☐ Establish evaluation criteria to assess inclusion considerations in the proposals/bids. Ensure that a GESI specialist reviews both the evaluation criteria and the proposals.

   ☐ Implement a supplier corrective and preventive action process to manage non-conformances with agreed inclusion-related requirements, to address their impact, to analyze the reason for the non-conformance, and to establish appropriate actions to correct the issue and prevent any repetition.

   ☐ Ensure adequate actions are taken when suppliers fail to perform according to agreed inclusion-related requirements, such as labour rights, codes of conduct, and health, safety, security and environment regulations.

Read more

- Conduct inclusive procurement to support businesses owned by women and marginalized groups: Inclusive Procurement And Contracting: Building a Field of Policy and Practice, PolicyLink, 2018.
- Conduct disability-inclusive procurement: Guidelines on the Implementation of Indicator 8: Procurement, High-Level Committee on Management (HLCM) Procurement Network, 2020.
- Policy recommendations for promoting women's participation: Empowering women through public procurement and enabling inclusive growth, UN Women, 2021.
- Strategies to address structural barriers to procurement: Contracting for Equity: Best Local Government Practices that Advance Racial Equity in Government Contracting and Procurement, Insight Center for Community Economic Development.
- Consider using the Short Form of Contract from FIDIC for simple works of limited duration: Short Form of Contract 2nd Ed (2021 Green Book).
- Conduct inclusive procurement for employment-intensive works and community-based contracting:
  - Guide on gender-responsive procurement for Employment-Intensive Investment Programmes (EIIPs), ILO, 2022.
  - Contracting Local Infrastructure Works, ILO, 2009.
  - Community contracts in urban infrastructure works, ILO, 2001.
  - Community Contracting and Organisational Practices in Rural Areas: A Case Study of Malawi, ILO, 2005.
  - Organisation, Contracting and Negotiation in Development Programmes and Projects: A Study of Current Practice at the Community Level, ILO, 2001.
- Improve the capacity of local and small-scale contractors:
  - Small-scale contractor development in the construction sector, ILO, 2003.
  - Developing the construction industry for employment-intensive infrastructure investments, ILO, 2019.
  - Trainer's Guide for Rural Masons - Learning Unit 5 Toilet construction, ILO, 2017.
- Improve procurement transparency through open data: Open Contracting Data Standard (OCDS), Open Contracting Partnership.
- Inclusive Public Procurement Playbook, UNDP, 2022.

- Implement measures for protection from sexual exploitation, abuse and sexual harassment (PSEAH) and the protection of children and young people:
  - PSEAH Implementation Quick Reference Handbook, CHS Alliance, 2020.
  - Sexual exploitation, abuse and harassment (SEAH) Infrastructure Tool, DFID Safeguarding Unit, ICED, 2019.
  - DFAT Child Protection Guidance Note: Child Protection in Infrastructure Activities, DFAT, 2020.

ACTION CHECKLIST: Contractors
Construct inclusive WASH projects

1. **Engage in inclusive workforce management, which promotes diversity and inclusion in hiring practices**

   ☐ Before the start of construction works, organize meetings with the concerned communities, contractors, the contracting agency, local authorities and relevant local NGOs and CSOs to discuss the availability of labour inputs from the local communities.

   ☐ Prioritize hiring workers from the local community, including women and people in marginalized groups, to ensure they benefit from employment in the construction, operations and maintenance of the infrastructure asset.

   ☐ Ensure that job descriptions or terms of reference (TORs) use inclusive language and gender-neutral terms and are published in the main working language of the project site.

   ☐ Share project-related employment opportunities in channels likely to reach more women and diverse candidates.

   ☐ Ensure equal pay for equal work is offered, regardless of sex, gender, age or disability.

   ☐ Establish hiring quotas within job types to ensure the diverse and equitable representation of women and men (and marginalized groups where applicable) at all levels, from administration and operations to management and technical positions.

   ☐ Establish rotational systems if the labour supply exceeds the availability of job opportunities to ensure equitable distribution of employment benefits.

   ☐ Respect workers' rights to work in decent conditions, both wage and non-wage related. This includes ensuring timely and full payments of decent wages, providing wage entitlements and establishing inclusive complaint redress procedures. It also includes enacting Occupational Safety and Health (OSH) provisions, such as providing adequate tools, establishing arrangements to minimize the risk of accidents, providing transport to and from the worksite, ensuring coverage under accident insurance and other social protection

entitlements, training workers before the actual start of the construction works and establishing safeguards.

   ☐ Provide ongoing training and mentorship opportunities for all people, at all levels. When planning training sessions, take into consideration gender- or disability-specific needs.

   ☐ When hiring community members as construction workers, provide training in safe construction practices, working effectively in groups, GESI awareness, and Protection from Sexual Exploitation, Abuse and Harassment (PSEAH).

   ☐ Use an output-based payment system, with equal pay for equal work. This provides flexibility regarding working hours, which can support women and marginalized groups who may have time constraints that prevent them from working full-time.

Read more
- Engage local communities in infrastructure work:
  - Community contracts in urban infrastructure works: practical lessons from experience, ILO, 2002.
  - Emergency employment, ILO, 2021.
- Include women and marginalized groups in construction:
  - Disability Inclusion in EIIP Stocktaking and way forward, ILO, 2022.
  - Illustrated Guidelines for Gender-responsive Employment Intensive Investment Programmes, ILO, 2016.
  - Inclusion of lesbian, gay, bisexual, transgender, intersex and queer (LGBTIQ+) persons in the world of work: A learning guide, ILO, 2022.
- Improve capacity for employment-intensive infrastructure programmes:
  - Employment-Intensive Infrastructure Programmes: Capacity building for contracting in the construction Sector, ILO, 1999.
  - ILO Guide for Skills Development in Employment-Intensive Investment Programmes, ILO, 2021.
- Labour regulations and social safeguards: Developing the construction industry for employment-intensive infrastructure investments (Chapter 8), ILO, 2019.

2. Engage in inclusive construction management, which ensures decent work conditions and enforces health, safety, security and environment (HSSE) standards

☐ Ensure adequate and safe WASH facilities and practices in the workplace.

☐ Where cultural norms and capacity allow, ensure that there is a diverse range of construction supervisors on site (including both women and men) and that adequate and safe working facilities are provided for people of all genders.

☐ Ensure that there is no child and forced labour on construction sites, unless in non-hazardous tasks and under a formal apprenticeship related to their education.

☐ Ensure that on-site practices and activities support flexible working hours as much as practical, considering the convenient times for women, men and gender-diverse workers who may be responsible for additional care and household responsibilities.

☐ Depending on the sociocultural context and the work demands, it may be necessary to have separate work groups for women and men, and to assign women's work groups to worksites closer to their homes.

☐ Complete a risk assessment and establish controls to ensure that hazards are minimized. Continuously monitor safety in the work zone and surrounding areas.

☐ Use environmentally sustainable work methods and local materials to construct or improve WASH assets.

☐ Enforce health, safety, security and environment (HSSE) standards.

Read more
- Minimize negative impacts of construction on local communities: Considering inclusion in construction, Costain.
- Apply health, safety, security and environment (HSSE) standards:
  - Environmental and social safeguards guidelines, ILO, 2022.
  - Guidelines on occupational safety and health management systems, ILO, 2009
- Ensure adequate and safe WASH facilities in the workplace: WASH@Work: a Self-Training Handbook, ILO, 2021.

- Gender-responsive construction management and supervision: Guide on integrating gender throughout infrastructure project phases in Asia and the Pacific, UN Women and UNOPS, 2019, p. 56.

3. Maintain safe and inclusive construction sites

☐ The GESI specialist should review and monitor the site establishment provisions to ensure that site facilities are safe and inclusive.

☐ Women workers and those living nearby can conduct a women's safety audit of the site, providing recommendations to address any concerns they may have.

☐ Enforce policies and mechanisms for non-discrimination, protection from sexual exploitation, abuse and harassment (PSEAH), and prohibition of child labour and forced labour.

☐ Provide segregated, private, secure and menstrual hygiene management-friendly toilet facilities on site for people who menstruate.

☐ Ensure on-site accommodation facilities are separated based on the requirements of women and men involved in the labour force and ensure safety and security measures are in place.

☐ Ensure that personal protective equipment is inclusive and fits properly on different types of people.

☐ Where cultural norms and capacity allow, provide family-friendly work facilities on site.

☐ Ensure there are private spaces for workers to express milk, quiet areas for neurodivergent people, areas for people to take medicine, faith areas for prayer and cultural or religious routines, and anything else that is relevant to the context.

☐ Where relevant to the context, provide accommodation for animals (including assistance animals and animals as a mode of transport).

☐ Ensure that all workers have safe and accessible transportation options to the construction site(s) and their place of accommodation.

☐ Ensure that an appropriate traffic management plan is implemented in and around the construction site to minimize public inconvenience and safety hazards.

☐ Ensure that any rerouting of sidewalks and pedestrian paths provides proper accommodations for persons using wheelchairs, strollers or carts.

☐ Conduct an assessment of the works' impact on surrounding areas, and ensure adequate protection and safety measures are in place.

Read more

- Safety Guidelines for Women in Construction, Occupational Safety and Health Administration.
- Safety, health and welfare on construction sites: A training manual, ILO, 1995.
- PSEAH Implementation Quick Reference Handbook, CHS Alliance, 2020.
- Protection of children and young people in infrastructure: DFAT Child Protection Guidance Note: Child Protection in Infrastructure Activities, DFAT, 2020.
- Practical tools and guidance on emerging best practices to prevent and respond to the risk of violence and harassment: Addressing Gender-Based Violence and Harassment (GBVH) in the Construction Sector, CDC, EBRD and IFC, 2020.
- Measures for PSEAH in infrastructure: Sexual exploitation, abuse and harassment (SEAH) Infrastructure Tool, DFID Safeguarding Unit, ICED, 2019.

← Return to Construction

ACTION CHECKLIST: WASH operators

Operate and maintain inclusive WASH assets and services

1. Build GESI awareness to foster inclusive environments in the WASH sector

☐ Improve workforce policies, training programmes and hiring outreach to encourage the participation of underrepresented groups, especially women and marginalized groups, in the operation and maintenance of WASH services.

☐ Conduct community events and campaigns to foster a sense of community and ownership to enhance the cleanliness, safety and sense of place in and around WASH assets.

☐ Conduct awareness campaigns to prevent discrimination, gender-based violence and sexual harassment in public toilets and WASH facilities.

2. Operate and maintain WASH assets and services to provide safe, reliable and accessible WASH for all types of users

☐ Ensure that the WASH asset and its related equipment and features are well serviced and operational, with particular attention to maintaining accessibility, affordability and safety.

☐ Understand and apply inclusive provisions as stipulated in policies, regulations and laws regarding WASH inclusion.

☐ Communicate information about any service disruptions immediately to consumers to allow them to make informed decisions for their daily WASH-related activities, and include an estimate of when the disruption will be resolved.

☐ Ensure that mechanisms are in place to respond to disasters and climate change impacts on water and sanitation infrastructure, such as emergency power in pumping stations, reserve water for drought periods and protections against flooding.

☐ Conduct periodic safety performance and risk mapping activities to inform safety improvement or investment plans.

☐ Engage local authorities to improve safety in public WASH facilities.

3. Establish inclusive monitoring and feedback mechanisms

☐ Ensure third-party monitoring and regular reporting on service quality. Allow public access to these reports.

☐ Ensure that feedback mechanisms on the usage or management of the WASH facilities are in place.

☐ Ensure that all target users can access and use the facilities effectively.

☐ Where appropriate, establish a community committee for operation and maintenance with balanced representation of genders, as well as representatives of marginalized groups, in leadership positions.

☐ Improve service delivery in response to feedback.

Read more
- Establish inclusive feedback and accountability mechanisms: Feedback and Complaints, CARE; and Inclusive Monitoring and Feedback Mechanisms, Global Shelter Cluster.
- Establish community committees for O&M: Operations and maintenance of rural infrastructure in community-driven development and community-based projects: lessons learned and case studies of good practice, World Bank, 2015.

← Return to Operations & Maintenance

ACTION CHECKLIST: WASH asset owners

Operate and maintain inclusive WASH assets and services

1. **Collect information about WASH asset condition and performance to identify areas for routine and specialized maintenance activities to improve inclusive outcomes**

   ☐ Collect data on WASH asset condition and performance for use in routine maintenance and planning.

   ☐ Collect, review and update data on target users, including their user experience, sense of safety, and other factors that may influence their use of WASH facilities. Use the data to determine whether changes should be made in the operations of the WASH asset.

   ☐ Identify critical WASH assets and create Strategic Asset Management Plans to ensure these are properly managed.

2. **Maintain user affordability through proper financial management and by prioritizing budgets for the maintenance of inclusive features**

   ☐ Ensure the allocation of sufficient government funds for the O&M of the WASH service to sustain a safe and healthy environment, including provision of continuous electricity supply in public WASH facilities.

   ☐ Diversify funding sources and do not rely only on user fees.

   ☐ Leverage technology to ensure last-mile water provision, such as local water kiosks that accept digital payment and community water automatic service providers with smart meters.

Read more
- Manage infrastructure assets:
  - Managing Infrastructure Assets for Sustainable Development: A Handbook for Local and National Governments, United Nations, 2021.
  - Tools for Infrastructure Asset Management, United Nations Department of Economic and Social Affairs.
- Leverage technology for last-mile water provision: Last mile water provision in developing countries, Global Infrastructure Hub.
- Gender mainstreaming in operations and maintenance: Guide on integrating gender throughout infrastructure project phases in Asia and the Pacific (Part V), UN Women and UNOPS, 2019.

← Return to Operations & Maintenance

ACTION CHECKLIST: WASH asset owners
Renovate, retrofit, repurpose and decommission assets

1. Collect information about WASH asset condition and performance to identify access issues and opportunities for renovating, retrofitting, repurposing or decommissioning

☐ Collect data on WASH asset condition and performance to identify gaps in inclusive access for women and marginalized groups.

☐ Collect feedback and conduct participatory consultations with diverse user groups to identify opportunities for improvement.

2. Retrofit WASH infrastructure assets to improve inclusion, sustainability and resilience

☐ Conduct studies of old WASH infrastructure assets to determine the need to retrofit inclusive features and make reasonable accommodations, such as adding grab rails for accessibility, diaper changing facilities and menstrual hygiene management fixtures in toilets, and so on.

☐ Determine retrofit features that can enable the achievement of sustainable, resilient and inclusive outcomes. This can include water-saving plumbing fixtures and water recycling systems in buildings.

☐ Ensure that alternative options exist before retrofitting the WASH asset or its parts, especially if this is the primary WASH facility for some marginalized groups.

Read more

- Assess accessibility of structures: Toolkit on Accessibility: Accessibility Assessments, UNICEF, 2022.

Abbreviations

GESI

Gender equality and social inclusion

IWRM

Integrated water resource management

LGBTIQ+

Lesbian, gay, bisexual, transgender, intersex, queer or questioning, plus

LNOB

Leave no one behind

SDG(s)

Sustainable Development Goal(s)

Glossary

The use of inclusive language

This publication has been developed with the best effort to use inclusive language. This includes avoiding the use of derogatory and discriminatory language that perpetuates negative stereotypes about any group or promotes a sense of hierarchy placing any group of people below others.

People-first language is prioritized, such as in the use of terms 'persons with disabilities' and 'people living in poverty'. Gendered language is used when popular beliefs or preconceptions may obscure the presence or action of any gender. For example, recommendations in this publication may openly state that "both women and men" should be included in infrastructure works, as this is a male-dominated industry in many Global South countries. In other places, gender-neutral language is used, such as 'labour force' instead of 'manpower'.

Read more
- Guidelines for gender-inclusive language in English, United Nations
- Disability-Inclusive Language Guidelines, United Nations.
- Terminology guidelines to support WaterAid's equality, inclusion and rights framework, WaterAid, 2022.

Agency

The ability of a person and communities to act freely and make choices about their lives and what they deem important, which can be constrained by institutional structures, social barriers, and access to resources and power.[28]

Capacity

The ability of people, organizations and society as a whole to manage their affairs successfully.[29] This can include individual capacities (e.g., skills, knowledge), organizational capacities (e.g., strategies, systems, processes), and enabling environment capacities (e.g., policy framework for economic, political, environmental and social factors).[30]

Children

Persons under 18 years of age, as defined by the UN Convention on the Rights of the Child.[31]

Decent work

As defined by the International Labour Organization, decent work involves opportunities for work that is productive and delivers a fair income, security in the workplace and social protection for all, better prospects for personal development and social integration, freedom for people to express their concerns, organize and participate in the decisions that affect their lives and equality of opportunity and treatment for all women and men.[32]

Disaggregated data

Data that has been broken down into detailed subcategories, for example marginalized group, age, sex, gender, region or level of education. Disaggregated data can reveal deprivations and inequalities that may not be fully reflected in aggregated data.[33]

Diverse needs

This term is used throughout this publication to capture two key concepts in inclusion: diversity and equity. Diversity is about recognizing, respecting and valuing differences. Equity is about each person having the right tools at the right time in order to live a good life. The term 'diverse needs' acknowledges that the right infrastructure can be different for people depending on their age, sexual orientation, gender identity, health or disability status, legal status, ethnicity, religion, education, income or geographical location.

Do-no-harm principle

In the context of infrastructure development, the do-no-harm principle involves preventing and mitigating any negative impact of infrastructure development on affected populations and the environment, including unintended consequences.

Employment-intensive

A generic expression to describe strategies, approaches, technologies and activities that will promote and increase direct or indirect employment generation in investment programmes and projects.

Employment-intensive investments

Investments in infrastructure that link infrastructure development with employment creation, poverty reduction and local economic and social development.[34]

Empowerment

The process of enabling people to exercise their agency successfully. This can include increasing a person's control over personal decisions, their ability to make autonomous choices and influence household decisions, their ability to change aspects of their life, and their ability to collectively change things in their community.[35]

Environmental and social safeguards (ESS)

A term used by development institutions, international treaties and agencies to refer to policies, standards and operational procedures designed to first identify and then try to avoid, mitigate and minimize adverse environmental and social impacts that may arise during the implementation of development projects. ESS also have a proactive dimension to try to increase the chances that development projects deliver better outcomes for people and the environment.[36]

Forced labour

Work that is performed involuntarily and under the menace of any penalty. This includes situations in which persons are coerced to work through the use of violence or intimidation, or by more subtle means such as accumulated debt, retention of identity papers or threats of denunciation to immigration authorities.[37]

Gender

Refers to the roles, behaviours, activities and attributes that a given society at a given time considers appropriate for men, women and gender-diverse people. In addition to the social attributes and opportunities associated with being male and female and the relationships between women and men and girls and boys, gender also refers to the relations between women and those between men. These attributes, opportunities and relationships are socially constructed and are learned through socialization processes.

They are context-/time-specific and changeable. Gender determines what is expected, allowed and valued in a woman or a man in a given context. In most societies, there are differences and inequalities between women and men in responsibilities assigned, activities undertaken, access to and control over resources, as well as in decision-making opportunities. Gender is part of the broader sociocultural context, as are other important criteria for sociocultural analysis, including class, race, poverty level, ethnic group, sexual orientation, age, etc.[38]

Gender identity

While concepts of gender identity vary greatly across the world, it is generally defined as each person's deeply felt internal and individual experience of gender, which may or may not correspond with their sex assigned at birth or the gender attributed to them by society. It includes the personal sense of the body, which may or may not involve a desire for modification of appearance or function of the body by medical, surgical or other means.[39]

Gender expression

The range of cues, such as names, pronouns, behaviour, clothing, voice, mannerisms and/or bodily characteristics, to express a person's gender. It can be the same as or different from an individual's gender identity. One does not have to have a diverse sexual orientation, gender identity or sex characteristics to have a diverse gender expression. There is a common misunderstanding that gender identity and gender expression only apply to transgender and gender-diverse people, but this is not true. As the Independent Expert on Sexual Orientation and Gender Identity (IE SOGI) put it, "All human beings live in gendered societies traversed by power hierarchies and preconceptions". In some cultural and geographical contexts, it is especially pertinent to highlight gender expression since 'non-conforming' gender expression increases the vulnerability of some individuals.[40]

Gender equality

This refers to the equal rights, responsibilities and opportunities of women and men and girls and boys. Equality does not mean that women and men will become the same but that women's and men's rights, responsibilities and opportunities will not depend on whether they are born male or female. Gender equality implies that the interests, needs and priorities of both women and men are taken into consideration, recognizing the diversity of different groups of women and men. Gender equality is not a women's issue but should concern and fully engage men as well as women. Equality between women and men is seen both as a human rights issue and as a precondition for, and indicator of, sustainable people-centred development.[41]

Gender equality and social inclusion (GESI) transformative approach

Activities that attempt to redefine traditional gender roles and relations and transform inequality and the marginalization of particular groups to promote shared power, control of resources, decision-making and support for gender equality and social inclusion.

Global South

The phrase 'Global South' refers broadly to the regions of Latin America, Asia, Africa and Oceania, mostly (though not all) low-income and often politically or culturally marginalized. The use of the phrase Global South marks a shift from a central focus on development or cultural difference towards an emphasis on geopolitical relations of power.[42] While the term is not geographically accurate, this publication uses this term over 'developing countries', which implies that development can only be achieved in the same manner as 'developed countries', disregarding inequalities brought about by colonization.

Horizontal and vertical inequalities

Vertical inequalities are the inequalities between individuals or households that are not related to group-based distinctions, such as income inequalities. Horizontal inequalities are the inequalities that exist between ethnic and other population groups.[43] Horizontal inequalities are often historically rooted and persist over generations because of entrenched deprivation or advantage. Current trends, such as migration, including refugee influxes, may also lead to horizontal inequalities.[44]

Inclusion (social inclusion)

The process by which efforts are made to ensure equal opportunities so that everyone, regardless of their background, can achieve their full potential in life. Such efforts include a combination of top-down and bottom-up policies and actions that promote equal access to public services and enable citizens' participation in the decision-making processes that affect their lives.[45]

Indigenous peoples

People with distinct social, economic or political systems, including language, culture and beliefs, who have a strong link to ancestral territories and surrounding natural resources. They often form non-dominant groups of society and have a historical continuity with precolonial and/or pre-settler societies.[46]

Infrastructure

A key pillar of development. It is the set of fundamental facilities and systems that deliver essential services needed for our society to function, such as energy, transport, water, waste management, digital communications and more. It has three dimensions that work together to provide services that enable the achievement of development benefits: the built environment, the enabling environment and the natural environment.

Infrastructure development

The process of planning, delivering and managing infrastructure across the entire infrastructure life cycle.

Internally displaced persons (IDPs)

Persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognized state border.[47]

Intersectionality

The interconnected nature of social categorizations such as race, gender identity, sexual orientation, religion, disability and social class, which overlap to create interdependent systems of privilege, oppression, discrimination or disadvantage.[48]

LGBTIQ+

An acronym for lesbian, gay, bisexual, transgender, intersex, and queer or questioning people. The plus ('+') sign represents people with diverse sexual orientations, gender identities, gender expressions, and/or sex characteristics (SOGIESC) who identify using other terms or none.[49]

Leave no one behind

The central, transformative promise of the 2030 Agenda for Sustainable Development and its Sustainable Development Goals. It represents the unequivocal commitment of all United Nations Member States to eradicate poverty in all its forms, end discrimination and exclusion, and reduce the inequalities and vulnerabilities that leave people behind and undermine the potential of individuals and of humanity as a whole.[50]

Local resource-based (LRB) approach

LRB approaches optimize the use of local resources, including local labour and technologies, as well as locally available materials, tools and equipment through local suppliers.[51]

Marginalized groups

Groups and communities that experience discrimination and exclusion (social, political and economic) because of unequal power relationships across economic, political, social and cultural dimensions.[52] Marginalized people can be excluded in a specific context on the basis of different personal characteristics or grounds, such as sex, gender, age, ethnicity, religion or belief, health status, disability, sexual orientation, gender identity, education, income, or living in various geographic localities. A person belonging to a marginalized group (whether actual or perceived) faces increased risk of experiencing inequalities in accessing rights and use of services and goods,[53] including essential infrastructure services.

Meaningful participation

The concept of 'meaningful' participation ensures that women and marginalized groups are not only present in the process of infrastructure development, but that their concerns are heard and taken on board, and that they have the opportunity to articulate their contributions and expertise, to ensure that intersectional perspectives and analyses inform and shape infrastructure processes, and that outcomes benefit the whole of society.[54]

Older people

An older person is defined by the United Nations as a person who is over 60 years of age. However, families and communities often use other sociocultural referents to define age, including status in the family, physical appearance or age-related health conditions.[55]

People living in poverty

People living in a condition characterized by sustained or chronic deprivation of the resources, capabilities, choices, security and power necessary for the enjoyment of an adequate standard of living and other civil, cultural, economic, political and social rights.[56]

Persons with disabilities

According to the United Nations Convention on the Rights of Persons with Disabilities, this includes persons who have long-term physical, mental, intellectual or sensory impairments which, in interaction with various barriers, may hinder their full and effective participation in society on an equal basis with others.[57]

Person who is neurodivergent

A person whose brain and cognition function differently from what is considered 'typical'. This term recognizes that brains do not all function in the same way. It includes people who are autistic, those with ADHD, and people with dyslexia.[58]

Reasonable accommodation

According to the United Nations Convention on the Rights of Persons with Disabilities, this means necessary and appropriate modification and adjustments not imposing a disproportionate or undue burden, where needed in a particular case, to ensure to persons with disabilities (as well as women and marginalized groups) the enjoyment or exercise on an equal basis with others of all human rights and fundamental freedoms.[59]

Refugees

Under international law and the mandate given to the Office of the High Commissioner for Refugees (UNHCR), refugees are persons outside their countries of origin who are in need of international protection because of feared persecution, or a serious threat to their life, physical integrity or freedom in their country of origin as a result of persecution, armed conflict, violence or serious public disorder.[60]

Stakeholders

Individuals, groups or organizations who may affect, be affected by, or perceive themselves to be affected by a decision, activity or outcome of a project.[61]

Suppliers

Vendors of works, supplies, goods and services.

Universal design

The design and composition of an environment so that it can be accessed, understood and used to the greatest extent possible by all people, regardless of age, size or disability. This includes public places in the built environment, such as buildings, streets or spaces that people have access to; products and services provided in those places; and systems that are available, including information and communications technology (ICT).[62] The seven principles of universal design are: equitable use, flexibility in use, simple and intuitive use, perceptible information, tolerance for error, low physical effort, and size and space for approach and use.[63]

Vulnerable

Social vulnerability refers to the varied capacity or inability of groups and individuals to deal with hazards and take effective measures to insure against losses. This is based on their physical and socioeconomic position, control over resources, as well as exposure to, awareness of, management of and ability to respond to risk.[64]

Youth

All persons between the ages of 15 and 24 years, without prejudice to other definitions by Member States.[65]

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