



The Solutions Lab

Scaling for Sustainable Infrastructure

Gender-Responsive Infrastructure

Thematic Brief

Why infrastructure is not gender-neutral and what we can do to make it responsive to the needs of women and girls

The Agenda 2030 is a milestone agreement as it reflects a global consensus to balance economic development with social inclusivity and ecological sustainability. To turn promise into reality, all societies must “*achieve gender equality and empower all women and girls*” (SDG 5). Whilst they make up half of the world’s population - and therefore also hold half the world’s human potential - women and girls across the world remain disproportionately burdened by poverty, hunger or climate change.¹ One of the root causes is a lack of access to basic infrastructure services such as clean water, sanitation or safe public transport.² In the long run, all of this undermines their ability to integrate into and benefit from public life in all its social, economic and political aspects.

In order to remedy this problem, it is crucial to recognize that **contrary to popular opinion infrastructure is not gender-neutral**. In other words: the demand for and use-patterns of infrastructures by men, women and the LGBTQI³ community differ significantly due to the gendered realities of their lives. Additionally, intersecting inequalities in education, employment patterns, economic means and social categories such as class or race all influence what services people need as well as their ability to benefit from infrastructures and related economic sectors. To give just one example, the enhancement of a public transport system through an expansion of paved roads should not go at the expense of access and safety for those pedestrians unable to afford transportation tickets. Recently, gendered differences in infrastructure use and demand have also been brought to light by the COVID-19 pandemic.⁴ Women’s livelihoods and jobs have been particularly vulnerable as they represent around 70% of the global care workforce and generally have less job security or social protection than men.⁵ They are more likely to be laid off in times of crises and less likely to benefit from economic response measures. Yet, despite the existence of such differences, infrastructure is more often than not planned, built and operated in a gender-blind manner and is, by consequence, biased towards the needs of adult men.

To make public services more responsive to everyone’s lives, it is critical to **systematically assure participation of women and meaningful consideration of their needs and demands across each stage of the infrastructure lifecycle**. Mainstreaming gender into infrastructure will not only empower women and girls in their upward social mobility, reduce the gender gap and improve access to human rights. Research also demonstrates a broader economic rationale: according to the OECD (Organisation for Economic Co-operation and Development), applying a

¹ UN Women, 2018. [Turning Promises Into Action: Gender Equality in the 2030 Agenda](#).

² UNOPS, 2020. [Infrastructure for Gender Equality](#).

³ LGBTQI: *lesbian, gay, bisexual, transgender, queer and intersex*.

⁴ Chatham House, 2020. [The Covid-19 Gender Gap: How Women \[...\] Will Drive Economic Recovery](#).

⁵ UNOPS, 2020. [Infrastructure for Gender Equality](#).

gender-lens to infrastructure development would increase the total GDP of its member-states by 2.5% until 2050.⁶ More generally, policies that target women's economic empowerment have the potential to contribute as much as \$28 trillion (or 26% increase) to global GDP in just a decade.⁷ An important means to unlock this potential lies in addressing the gendered impacts of infrastructure in tandem with related areas such as agriculture, food production and industry.⁸

Barriers to Gender-Responsive Infrastructure Development

- **Inadequate knowledge and awareness:**

The infrastructure sector, still predominantly male-dominated, tends to regard infrastructure as gender-neutral. Policymakers and business leaders alike do not sufficiently acknowledge gender as an essential and beneficial component of sustainable infrastructure development. This is due to insufficient understanding of the differentiated infrastructure needs and use-patterns of women and men as well as the result of a narrow focus on environmental sustainability factors at the expense of a holistic ESG (Environment, Social, Governance) approach.

- **Lack of gender disaggregated data:**

A systematic collection of gender disaggregated data is required at both project and aggregate levels to generate reliable information on the differentiated needs of women as infrastructure end-users. In addition, data on labour force participation including at the leadership level and on access to training is crucial to highlight and ultimately improve the role of women as contributors to the sector. In all this, quantitative approaches should be complemented by qualitative means, including data gained through gender-sensitive platforms for end-user consultation. Supplementary trend-analyses are important to incorporate insights into upstream-planning and national development plans.

- **False perceptions of costs:**

Gender-responsive infrastructure is often perceived as time-consuming and expensive. However, a report by the WHO (World Health Organization) and World Bank estimates that for new projects, full compliance with accessibility standards only requires about 1% of the total cost whilst guarding against much higher expenses of retrofitting.⁹ Inadequate design and planning that constrains the accessibility of infrastructure services negatively impact the overall business case.¹⁰ For instance, surveys reveal that women and men use public transportation at different times and frequency, depending on their work-family obligations: whilst men tend to commute more directly to work, women travel shorter distances with multiple stops. Solid financial due-diligence takes such gender-disaggregated data into account.

- **Unfavourable enabling environment:**

The right policy, legal and regulatory frameworks can act as key enablers for mainstreaming gender into infrastructure development. Operating at the intersection of governments' regulatory and buying powers - and accounting for 30% of national GDP in developing countries on average¹¹ - procurement processes can help unleash the vastly untapped economic potential of women entrepreneurs. Yet, it is estimated that Women Owned Businesses (WOBs) win less than 1% of all contracts in public procurement globally.¹² From the average company size to access to

⁶ OECD, 2020. Presentation delivered at The Solutions Lab: Scaling for Sustainable Infrastructure.

⁷ McKinsey, 2015. [McKinsey Global Institute: The Power of Parity.](#)

⁸ Sustainable infrastructure has been shown to positively influence the achievement of all 17 SDGs and 92% of its targets. See: UNOPS, 2018. [New Report Stresses Infrastructure as Key to Unlocking Sustainable Development Goals.](#)

⁹ UNOPS & UN Women, 2019. [Guide on Integrating Gender Throughout Infrastructure Project Phases \[...\].](#)

¹⁰ OECD, 2019. [Gender Equality and Sustainable Infrastructure.](#)

¹¹ International Trade Centre, 2014. [Empowering Women through Public Procurement.](#)

¹² Ibid.

financial services, WOBs face considerable economic, social and at times regulatory barriers to accessing tenders and winning procurement contracts. Regulatory steps such as increasing the transparency of processes, avoiding large contracts with multiple bundled requirements or implementing prompt payment can help address these challenges and lead to an overall improved quality of services.¹³

- **Lack of capacity building and training:**

As a consequence of the overall lack of awareness on the topic, opportunities for training and capacity building fall short throughout the infrastructure lifecycle. Where they exist, capacities on gender-responsive infrastructure are often located at and constrained to a small gender advisory division in the planning process. Additionally, women face a lack of equal employment measures downstream. A study of fifteen developing countries, for instance, showed that in the water, sanitation and hygiene sector, women professionals made up less than 17% of labour force.¹⁴ Targeted capacity building for women can remove barriers to participation, including through the provision of construction skills training to local communities and women, which promotes livelihood opportunities and builds domestic capacity in the labour-based construction sector.

Solutions to Mainstreaming Gender Across the Infrastructure Lifecycle

To ensure that infrastructures address the service needs of men and women alike, gender has to be mainstreamed across the infrastructure lifecycle. Here are a number of steps that can be taken thereto.¹⁵

1. **Strategic Planning:** Besides supportive policy, legal and regulatory frameworks for an overall enabling environment, long-term visions for gender mainstreaming should be in place. A *Gender Action Plan (GAP)* is an important roadmap tool that outlines specific activities and tangible benefits. A GAP allocates financial and human resources and sets concrete targets along a timeline. It can be developed at different levels (national, regional, local) and by various stakeholders including planners and project developers.
2. **Prioritization:** *Key Performance Indicators (KPI)* and specific gender criteria should be enshrined in regulatory and voluntary standards to ensure those projects are selected that serve the needs of all segments of society while balancing social, environmental and economic considerations. The public and private sector should promote projects that support women empowerment and gender equality in the infrastructure sector by means of gender-sensitive employment activities and by incorporating women into the decision-making process. These KPIs can be applied at different levels, including the project pipeline.
3. **Project Planning:** A *Gender Analysis (GA)* conducts qualitative and quantitative research to provide an evidence-based project design that is responsive to social frameworks and contextual gender-needs. *Environmental and Social Impact Assessments (ESIAs)* help to evaluate possible externalities of infrastructure projects. A corresponding action plan can support the identification of mitigation measures. *Sex-disaggregated Beneficiary Assessments* analyse benefits of the project such as accessibility, employment measures and social impact disaggregated by sex, geographic location, economic status, educational level or ability status. *Resettlement Action Plans (RAPs)* can minimize the negative impact of resettlements through gender-sensitive strategies, including equal access to compensation and property rights.

¹³ Ibid.

¹⁴ UNOPS, 2020. [Infrastructure for Gender Equality](#).

¹⁵ For a detailed explanation of some of the tools, see: UNOPS & UN Women, 2019. [Guide on Integrating Gender Throughout Infrastructure Project Phases \[...\]](#).

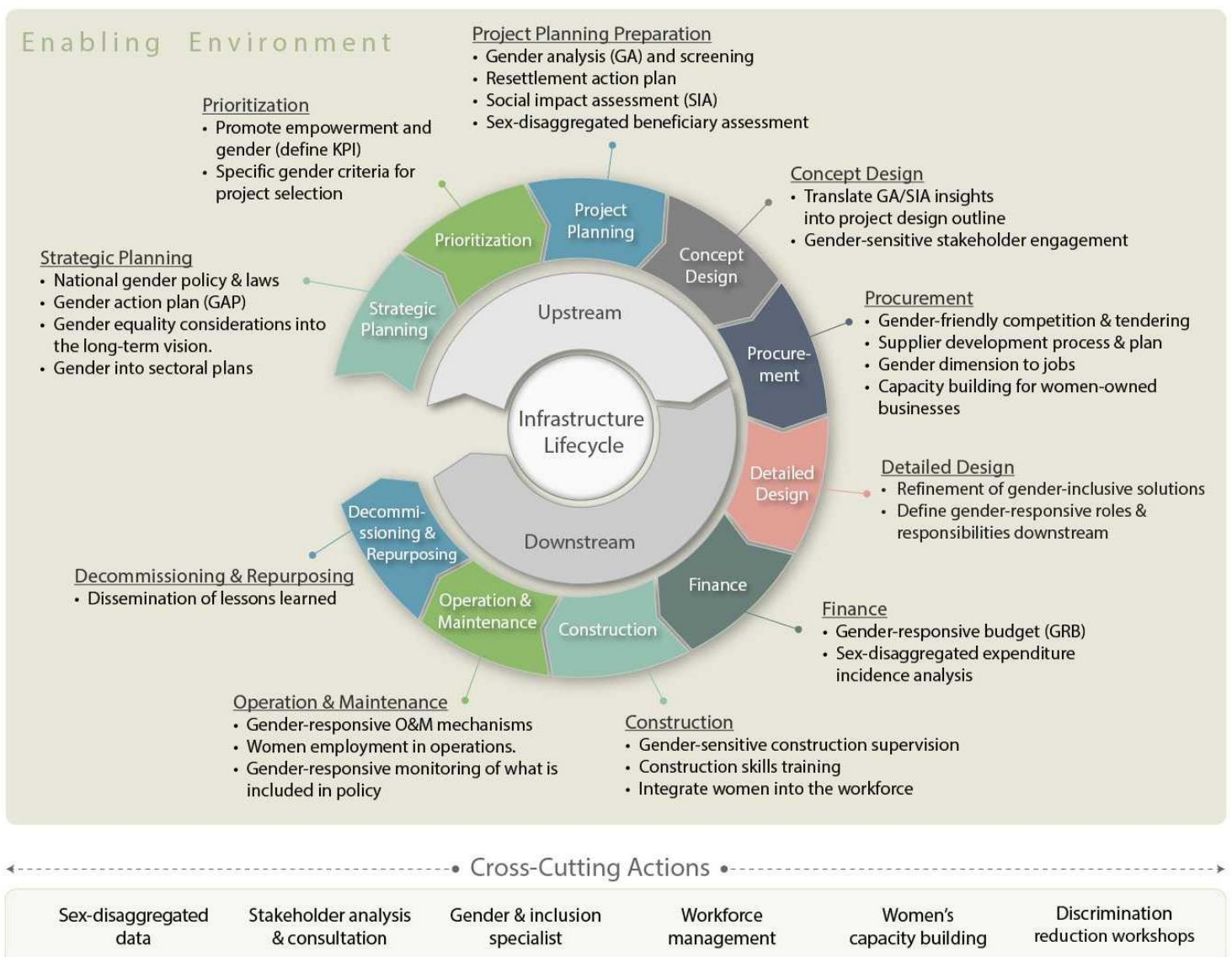
4. **Concept Design:** The opportunities for improvement and specific needs identified through the *GA* as well as the *ESIAs* should be crystallized into practical solutions, incorporated into the project and defined in greater detail during the next phases. *Stakeholder and Community Engagement* ensures in-depth participation of marginalized groups, contributes to gender equality and mitigates the project risks to community subsets. This engagement should follow gender-sensitive guidelines to avoid an unintended exclusion of women: holding workshops at inconvenient times in the context of gendered home care responsibilities or an obstructive workshop design that is not responsive to gendered norms on vocal public engagement can, for instance, create challenging barriers.
5. **Procurement:** *Gender-Sensitive Procurement* integrates enabling requirements and specifications that encourage the potential of Women Owned Businesses and female workers. Procurement measures, based on solid market research, can mainstream gender in the stages of sourcing, solicitation, contract awarding, issuance and management through even small adaptive measures.¹⁶
6. **Detailed Design:** Based on the specifications given in the concept design, further refinement of how the current project design will account for the different gender needs should be conducted. Furthermore, the different gender-responsive roles and responsibilities should be defined considering all downstream phases. These measures will help to ensure the achievement of inclusive infrastructure projects that suit everyone's needs and demand.
7. **Finance:** *Gender-Responsive Budgets (GRB)* address differentiated needs and interests by allocating expenditure and gender-responsive commitments in a re-directing manner towards the well-being and inclusion of women and other marginalized groups. To give an example: women and girls in developing countries are responsible for over 70% of water collection equalling 200 million hours of work per day.¹⁷ This underscores the vital importance of gender-responsive targets as the reduction of budgets for water access might inadvertently cause girls to spend more time fetching water and less in school. A *Sex-disaggregated Expenditure Incidence Analysis* further scrutinizes the gendered impact of a project's resource allocation, for instance, whether the design of a new school building favours equal attendance of girls and boys. Numerous reports highlight that adolescent girls frequently drop out of school due to a lack of (adequate) toilets as well as menstrual hygiene and sanitary facilities, particularly in low-income countries.
8. **Construction:** *Gender-Responsive Construction Supervision* and equal employment measures not only enhance safety and security but also help integrate more women into the workforce through skills training and technical assistance. For example, a lack of job advertisements targeted to women – or their placement in channels that women are unlikely to consult – hinders an increase of female economic activity in this sector. Safe and secure work environments should be created on construction sites through policies, legislation and campaigns to prevent Gender-Based Violence (GBV) and sexual harassment on sites. Roles and responsibilities for the integration of these measures should be assigned and plans for future monitoring defined.

¹⁶ See also: International Trade Centre, 2014. [Empowering Women through Public Procurement](#).

¹⁷ UNICEF, 2016. [Collecting Water is often a Colossal Waste of Time for Women and Girls](#).

9. **Operation & Maintenance:** *Gender-Responsive O&M Mechanisms* acknowledge the importance of community ownership and ensure that projects are well-maintained to provide equitable services to both women and men. Gender-mainstreamed O&M plans enhance diverse employment opportunities for women through adequate human resource policies and practices including equitable recruitment, technical training and responsive workforce management.
10. **Decommissioning and Repurposing:** *Gender-responsive Monitoring and Evaluation* includes the dissemination of lessons learned and an impact analysis concerning objectives and indicators of the GAP. Ideally, long-term assessments on the project's gendered impact and benefits are conducted and shared.

FIGURE 1. GENDER MAINSTREAMING ACROSS THE INFRASTRUCTURE LIFECYCLE¹⁸



¹⁸ Figure developed by The Solutions Lab.



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Deutsche Gesellschaft für Internationale
Zusammenarbeit (GIZ) GmbH

Registered Offices
Bonn and Eschborn

Dag-Hammarskjöld-Weg 1 – 5
65780 Eschborn, Germany
T +49 6196 79-0
F +49 6196 79-11 15

E info@giz.de
I www.giz.de

Contact:

John Hauert
Emerging Markets Sustainability
Dialogues
T +49 30 338424 410
E john.hauert@giz.de
I www.emsdialogues.org

Vanessa Bauer
Emerging Markets Sustainability
Dialogues
T +49 6196 79-7424
E vanessa.bauer@giz.de
I www.emsdialogues.org

