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UNIVERSITY OF
LIVERPOOL



Cities Alive

Designing cities that
work for women

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Content warning

This document contains information about domestic violence, sexual assault, identity-based discrimination, harassment, and violence which may be difficult to read, and triggering to survivors and their loved ones. We encourage you to prioritise your safety and wellbeing whilst reading, and to seek support if needed.

Language and terminology

Together with the UNDP and the University of Liverpool, we have taken care to use language and terminologies that are inclusive. The publication uses the general concept of “women” to refer to different age groups, ethnicities, religions, gender identities and expressions, socio-economic and family status, sexual orientations and those with disabilities. Readers are invited to apply the concept of intersectionality wherever possible. We recognise that, with a global publication, we may not always get this right. We also recognise that an individual’s identity is deeply personal and unique to them. Adjectives used to describe groups of people could not wholly capture the diversity of individual identity and may not always accurately reflect how an individual chooses to identify themselves. Where this is the case, please be assured that we have not used terminologies with the intent to cause offence or upset.

If you would like to share with us how we could improve on the language we have used, please contact us as we would welcome your contributions.

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Foreword

It is evident, even today, that the way cities are planned and designed can impact disproportionately on women.

Visit almost any city in the world and the challenges are evident: inadequate lighting which leaves women feeling vulnerable when walking at night; poorly-designed public spaces that do not take into account the needs of the whole community; and mass transit systems, where the threat of assault or harassment can be a deterrent to use, and the focus seems to be on serving commuters more than caregivers.

These challenges are doing a great disservice to women of all ages and backgrounds. The way cities are planned, built and managed can significantly restrict women's ability to move around, to be economically active or, simply, to enjoy the spaces they live in. This can impact quality of life and wellbeing and limit the role that women can play in creating and sustaining successful and productive places.

This report – co-authored by Arup, UNDP and the University of Liverpool – seeks to bring attention to this under-discussed issue. Drawing on extensive research and a wide range of sources, the authors provide a thorough and global catalogue of women's experiences in cities. Many women will, sadly, be familiar with the obstacles, frustrations and dangers outlined. Indeed, it may be triggering to some. For many men, the report will be as eye-opening as it is urgent, and we encourage them to read it with empathy. Their allyship is indispensable.



Lean Doody
European Director of
Cities, Planning and
Design, Arup



Richard de Cani
Global Director of
Cities, Planning and
Design, Arup

However, just as it can ingrain or enhance existing inequities, the built environment can be a strong catalyst for change. It is for practitioners and government authorities both to assume this responsibility and to embrace the opportunities. To that end, this publication also provides actionable guidance. First, it provides a wide range of strategies, backed up by case studies, to make cities more inclusive of and welcoming to women. Some cities are leading the way with encouraging results from which to learn. Second, the authors set out a new gender-responsive approach to planning with a clear methodology for directly engaging women in the decision-making and design processes.

Designing cities that work for women will make cities safer, healthier, more vibrant and more pleasant to live in for everybody. To achieve this, all city stakeholders – urban professionals, government authorities, community groups – must come together and embrace an inclusive and integrated approach at all stages. At Arup, we are committed to shaping a better world, one where people can thrive regardless of gender. We sincerely hope that this report will inspire you to join us and to ask what you can do to help.

**Designing cities that
work for women will
make cities safer,
healthier, more vibrant
and more pleasant to
live in for everyone.**

Executive summary

In cities across the world, women of all ages and identities face a range of barriers and vulnerabilities: gender-based discrimination, violence, poverty, expectations of unpaid care work, limited control over assets and unequal participation in private and public decision-making.

Whether by accident or design, cities themselves frequently add to or compound gender inequities. The way many cities are built often makes women unsafe, fails to provide for their basic needs and restricts their social and economic opportunities. As a result, billions of women are underserved by the urban environments they live and work in.



1%

of women in Africa own their own land (approximately)¹

97%

of young women in the UK have experienced sexual harassment in public²

20%

of women in India are employed³

17%

of the global population find it unacceptable when a female family member has a job⁴

Arup, the United Nations Development Programme (UNDP), and the University of Liverpool have partnered to bring attention to this inadequately discussed issue of gender inequity in the built environment. Bringing together a wealth of global knowledge and technical expertise, we aim to make cities around the globe better for women and, as a result, more resilient and inclusive for all. In the publication, “women” is understood in an intersectional way to include women of all age groups, ethnicities, religions, gender identities and expressions, socio-economic and family status, sexual orientations and those with disabilities.

Many of the challenges highlighted in the report are already widely known, yet they frustratingly persist in cities worldwide. For instance, many women have experienced sexual violence and harassment in urban public spaces; toilets and sanitation facilities are often inadequate; millions of women have limited property rights to own homes where they live; the majority of women feel buildings, infrastructure and public spaces do not take their needs into account; the built environment professional sector, as well as many government and leadership positions, is male-dominated; data sources are gender-biased towards male experiences; urban spaces do not reflect and celebrate women in statues, road names and other monuments. The list goes on.

Executive summary

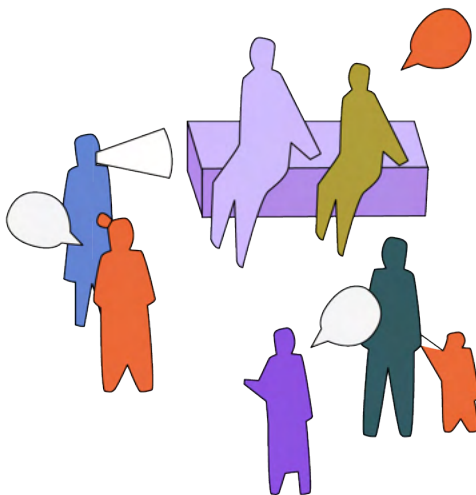
Drawing on a desk-based literature review and on original research conducted with diverse groups of women and men from around the world, the report contributes new experiences to the existing debate on women's conditions in cities. It presents four key thematic areas that can be used to influence how cities are planned and designed, and to make them more inclusive of, and welcoming for, women. The four key areas are:

Theme 1
Safety and security

Theme 2
Justice and equity

Theme 3
Health and wellbeing

Theme 4
Enrichment and fulfilment



95%

of women in Glasgow, Scotland, feel unsafe visiting parks at night⁵

29%

of women in business globally are in senior decision-making positions⁶

Within each of these areas, the report recommends a variety of strategies and actions that urban practitioners, government authorities and community groups alike can adopt to make cities safer, healthier, more just and fulfilling for women. The recommendations, which range from immediate actions to long-term processes, are supported by examples from around the world of places that have successfully implemented gender-responsive approaches.

The only way to achieve truly inclusive cities is to incorporate the views, needs and requirements of different people – especially of the most vulnerable and excluded groups – at all stages. This is the core premise of this report, and the fundamental shift in mindset it seeks to inspire. To that end, it proposes an easy-to-follow methodology for incorporating women's needs and perspectives throughout an urban project's lifecycle, from the initial brief, via stakeholder engagement, design and construction, through to implementation and, crucially, monitoring. This method can help identify challenges and develop well-crafted and context-relevant solutions.

Another key aspect highlighted in the report is the need to address the limited representation of women among built environment professionals and city decision-makers. It is critical that more is done to encourage women into these fields and to remove barriers to entry and progression. But also, those already in positions of influence need to understand why gender equity is important and how to embed this into their work.

Executive summary

Adopting a gender-responsive approach to urban planning and design goes beyond serving only women: it ensures the whole community can access the opportunities offered by cities, and it generates wider social, economic and environmental benefits. Involving women's perspectives can lead to more inclusive, equitable and sustainable developments. Women are known to plan and design with diversity in mind. They are more likely to create places that serve the needs of all people and of the planet. Achieving gender equity within our cities, finally, will also contribute significantly to delivering many of the UN Sustainable Development Goals.

There is an urgency behind this issue, which is amplified by the rapid pace of global urbanisation and the growing amount of reconstruction, due to conflicts and climate change. These trends mean, by sheer numbers, that more women will live in cities. Regeneration, reconstruction and new construction offer enormous and exciting opportunities to design cities that work better for women.

Planners and designers need to work with a greater pool of stakeholders – from city authorities and community groups through to investors – if they are to tackle these issues and generate positive outcomes. The result will be more resilient and inclusive urban environments that can generate social change and economic benefits for all.

How can you help
make where you live,
work and play be more
inclusive – a place
where people can thrive
regardless of gender?



Introduction

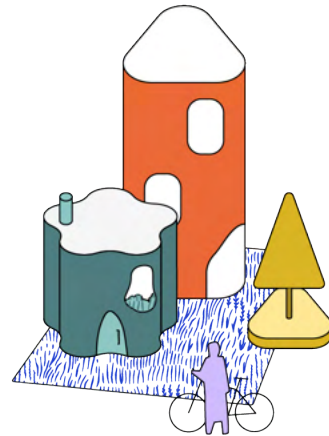


Setting the context

Cities provide pivotal hubs of innovation, productivity and opportunities, and are melting pots of diverse individuals and cultures. When planned without social equity and diversity in mind, urbanisation can widen the gaps between different groups in society. Among the most vulnerable are women in both wealthy and socio-economically disadvantaged urban contexts across the globe.

Today, 55% of the world's population live in urban areas, accounting for approximately 4.5 billion people. This proportion is expected to rise to 68% by 2050.⁷ Roughly half of the urban population globally is made up of women,⁸ and yet, cities are not designed with them in mind. The built environment is a key determinant of women's condition and experience. The way cities are designed, built, governed and maintained affects women's quality of life.

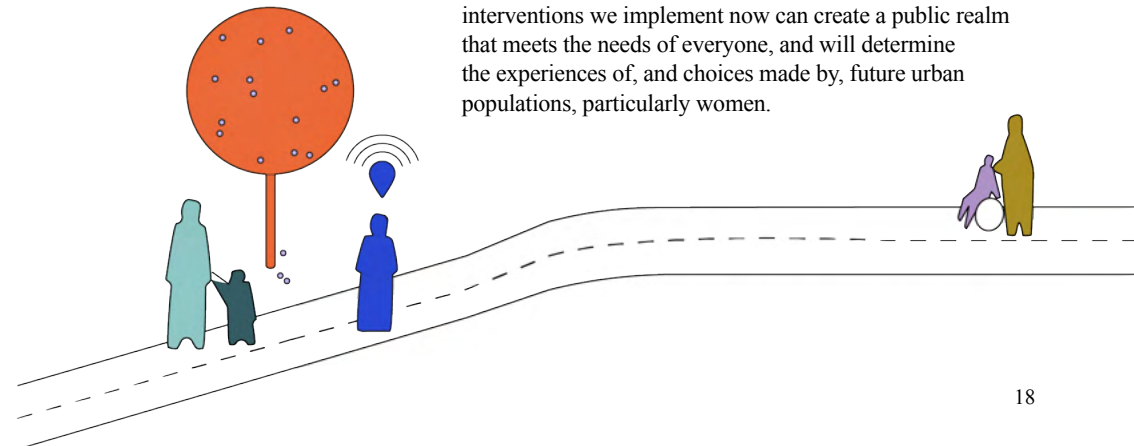
Research shows that women of different age groups, ethnicities, religions, gender identities and expressions, socio-economic and family status, sexual orientations and those with disabilities face a range of specific barriers and vulnerabilities in cities. The impacts of gender-based discrimination on women include, but are not limited to, higher rates of poverty, unemployment, unpaid care duties, barriers to education, and experiences of violence and street harassment.⁹ Women also suffer disproportionately from the consequences of climate change, and have unequal participation in public and private decision-making. Failing urban systems place limitations on the lives of women that further compound these disparities, which leaves women vulnerable and underserved in ways that men rarely experience.



This reality exists at a global scale and is validated through data again and again, personal experience and the media. In India, only 20% of women are employed;¹⁰ in the UK, 97% of young women have experienced sexual harassment in public;¹¹ in Ireland, 55% of women feel unsafe travelling on public transport after dark;¹² in Brazil, 12% of trans women have been assaulted in public restrooms;¹³ across the EU, women earn 37% less than men;¹⁴ globally, only 29% of women in business are in senior decision-making positions.¹⁵ Research also shows that women do not use public open space as freely as men.¹⁶

Though much has been written about the challenges women face in cities around the world, sustained efforts to address them have struggled to maintain momentum. Designing, building and governing cities more equitably would improve women's everyday experiences and help them lead safer, more fulfilling lives. However, whether intentionally or not, a historic and contemporary cohort of mostly male planners, designers and city leaders have created urban spaces which perpetuate outdated gender norms and inequities.¹⁷ As they are, cities prioritise men's mobility, health, safety, leisure and economic wellbeing over women's.¹⁸ This legacy of inequity has been exacerbated by a lack of participatory urban design, and particularly on a failure to involve women in urban planning and regeneration processes.

With continued growth in rapid urbanisation and associated challenges, we urgently need strategies and actions to reverse the gender bias that is built into our cities. The interventions we implement now can create a public realm that meets the needs of everyone, and will determine the experiences of, and choices made by, future urban populations, particularly women.



The ambition and partnership

As a partnership, Arup, UNDP and the University of Liverpool bring together a wealth of global knowledge and technical expertise – gained in the private sector, international development and academic spheres – with the overall ambition to further the debate on social equity and to improve the experiences of intersectional women in cities.

The three organisations have partnered to achieve the following objectives:

- Generate evidence regarding the challenges and opportunities that women of different age groups, ethnicities, religions, gender identities and expressions, socio-economic and family status, sexual orientations and those with disabilities’ experience in urban areas.
- Explore the role of the built environment industry in creating safer, more inclusive, nurturing and equitable spaces for women around the world, promoting the need for a holistic approach and collective effort.
- Develop practical and actionable strategies for city decision-makers and practitioners to design, plan and operate cities that work for women, focusing on spatial interventions, and considering governance and behavioural change.

The report also aims to contribute to the UN Sustainable Development Goals (UN SDGs), since achieving gender equality is integral to each goal. It focuses on addressing six of them:

- SDG 3: Health and Wellbeing;
- SDG 4: Quality Education;
- SDG 5: Gender Equality;
- SDG 8: Decent Work and Economic Growth;
- SDG 10: Reducing Inequality; and
- SDG 11: Sustainable Cities and Communities.

Achieving these SDGs will ensure social justice and inclusion, sustainable environments and economies that work for all – now and for future generations.

SUSTAINABLE DEVELOPMENT GOALS



Approach

The report was developed through a phased process of desk-based research and consultations with global stakeholders. The research was driven by two key questions:

1. *What challenges and opportunities do women face and see in cities around the world?*
2. *What strategies and spatial interventions can contribute to making the built environment a safer, more inclusive, nurturing and equitable space for women to live, work, play and thrive in?*

A comprehensive literature review established the evidence base and helped define the project's scope. Case studies from different socio-economic and urban contexts identified best practices and served as inspiration. A global survey of 770 respondents, expert interviews, and co-creation workshops with diverse groups of women from 20 countries across six continents provided further insight into women's lived experience of cities.

Arup's experts from different regions (Global Champions) and a Technical Review Committee, made up of senior representatives from Arup, UNDP, the University of Liverpool and an independent collaborator, provided global perspectives and critical feedback.

The research team treated the ethical implications of the project with the utmost seriousness and respect, and took all necessary steps to meet the highest standards of research ethics. A considerate and robust set of moral principles underpinned the primary research, given the sensitivity of this topic.



770

Respondents to our global survey
– 87% are female
– 111 have a disability
– 151 from minority groups

2

Global workshops held
– 40 global locations
– 20 countries
– 6 continents

14

Global Arup Champions sharing knowledge

Key issues, strategies and benefits



Key themes for gender-responsive urban planning and design

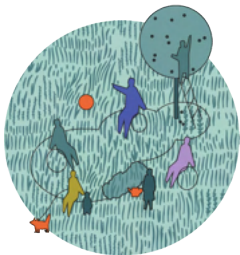
Drawing on the research findings, this report presents four key thematic areas that can be used to influence how cities are designed to be more inclusive and welcoming for women. These four areas are:



Theme 1
Safety and security



Theme 2
Justice and equity



Theme 3
Health and wellbeing



Theme 4
Enrichment and fulfilment

These themes form the core of an integrated and holistic gender-responsive approach to city planning.

In the following pages, we describe them in more detail before presenting actionable strategies. These mainly focus on spatial interventions, but also consider governance and behavioural change activities. Each strategy's practical application is supported by examples from around the world of places that have successfully implemented these kinds of approaches.

We have also included an anonymised quote from the global survey detailing speakers' personal characteristics where these were supplied.

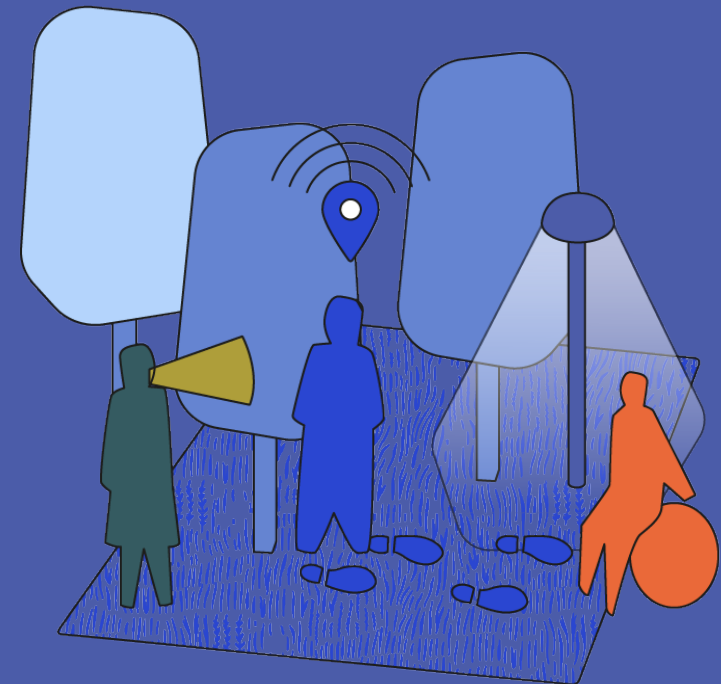
Safety and security

A sense of safety and security is fundamental to one's quality of life. The experience or fear of danger in the built environment causes mental and physical stress and hugely impedes women's personal wellbeing.

It often prevents women from enjoying the city and from accessing its full range of opportunities. For instance: poorly maintained, dark, male-dominated spaces have negative impacts on women, making them feel unsafe or on edge, and often forcing them to take long detours; whereas lively, well-lit, mixed-use spaces often have a reassuring, inclusive effect.¹⁹ To improve women's safety and security in cities, it is critical for all stakeholders to understand and raise awareness of these key issues, and to act to reduce harmful behaviours and create safer, more inclusive spaces.

The ways in which the built environment challenges women's safety and security vary from place to place. Nevertheless, our research identified these key issues:

- Unsafe streets and public spaces
- Reduced mobility due to safety concerns
- Disproportionate exposure to climate hazards
- Limited awareness and lack of tangible commitments



Key issues

Unsafe streets and public spaces

In cities around the world, women's safety and security in public open spaces is in the spotlight. Fears of assault and harassment,²⁰ together with acts of violence,²¹ deprive women of enriching public experiences.

A key concern for women in public open spaces is lighting. Dark spaces cause unease, but badly implemented lighting can also increase feelings of insecurity. This happens also when bright lights cut through the darkness to create high-contrast areas.²² In several US cities, efforts to cut costs by reducing lighting coincided with an increase in harassment and violence towards women.²³ In Uganda, women's fears of sexual violence increase after dark when criminals take advantage of 'dark spots' with insufficient lighting.²⁴

Several factors contribute to bad lighting in urban areas. Many cities simply cannot afford good lighting year-round. In other cases, environmentalists challenge lighting interventions because of their impact on wildlife. Yet, solutions exist: smart and energy-efficient lighting design can address both concerns.²⁵

Just as street lighting can impact women's safety, so too can the layout and shape of streets. Rapidly expanding cities are often oriented around vehicular travel²⁶ and push pedestrians to the margins.²⁷ A transport hierarchy that sidelines pedestrians experiences of streets and urban spaces negatively impacts women's safety and security. Research shows that safe sidewalks and street activity,²⁸ as well as street greenery,²⁹ can reduce levels and perceptions of crime in urban environments, as the presence of others helps women feel safer.

32%

of women survey respondents feel unsafe in public spaces at night (Research Survey, 2022)

I think I live in a generally safe area but do not generally feel safe alone in public spaces after dark. I am most cautious at nighttime and feel that's when most bad things might happen, even though that isn't statistically the case. They may not happen often here, but they do happen and that stays with you when walking alone, particularly after dark when things might not be seen by others to intervene.

Leeds, UK (above)
Survey respondent 2022,
parent, aged 36-45





my local train station is fairly isolated and not well-used, so you feel vulnerable waiting

The train also passes through a rougher area, which makes me nervous as I'm worried about who will get on the train. There are no guards to make me feel safer.

The times I have felt most unsafe were on public transport - or waiting for public transport.

I'm very aware of the areas that are known for anti-social behaviour. I actively avoid these areas as I feel unsafe and plan my walking routes to avoid them.

Seattle, USA (above)
Survey respondent 2022,
age 26-35

Liverpool, UK (left)
Survey respondent 2022,
age 26-35; long-term
illness/disability

Reduced mobility due to safety concerns

Women's mobility and safety are interdependent. In cities around the world, many women feel unsafe when moving around. A study of 28 global cities found that women were 10% more likely than men to feel unsafe in metros, and 6% more likely to feel unsafe on buses.³⁰ Sexual harassment is one of the most common concerns: this ranges from catcalling and seemingly innocuous 'banter' to men exposing themselves and groping women.³¹ Unsurprisingly then, the International Transport Forum identified women's safety and security as a Public Transport Priority in 2018.³²

Threats to women's safety when travelling can change throughout the day. For instance, in Hawassa, Ethiopia, time of travel emerged as a key factor in increased risks of violence, alongside the type of transport and the management of transport services.³³ The location of stations and the areas trainlines pass through can increase feelings of insecurity, too.

Experiences of violence on public transport reduce women's economic opportunities. Opting for safer modes of travel such as taxis or ride-shares incurs higher costs. The median extra cost of travel for women in New York City, for example, is between \$26 and \$50 per month.³⁴ In cases where women do not have money to meet these additional costs, they are forced to turn down job opportunities which are too far away, or to use cheaper, but more unsafe travel options to get to work.³⁵

Cities and economies at large lose out because of this. Poor and unsafe transportation reduces women's participation in the labour market by up to 16.5%, according to the International Labour Organisation.³⁶ In Jordan, 47% of women surveyed had turned down a job opportunity citing access to public transport, and sexual harassment on it, as key reasons.³⁷ Another study, in Tanzania, found that nearly one in four girls who had experienced sexual violence had been harassed or assaulted while travelling to or from school,³⁸ affecting their education and future opportunities.

Disproportionate exposure to climate hazards

Both the frequency and impact of climate hazards are increasing in cities,³⁹ and women are more exposed to their negative consequences. This is due to several factors of which the principal one is that women are more likely than men to live in extreme poverty.⁴⁰ This implies fewer resources to withstand, and recover from, large-scale climate change-related events.

These events also affect women in different, disproportionate ways. Floods damage health facilities and disconnect women from essential services, while heatwaves expose women to greater risks of heat stress.⁴¹ Women also make up the large majority of climate-induced displacement⁴² and deaths.⁴³ There is growing evidence that women bear the brunt of climate-related security risks in urban areas, such as loss of livelihoods, forced migration and lack of food security.⁴⁴

Despite these trends, climate action in many places is gender-blind. In climate finance, there is growing consideration of gender issues, but this remains inconsistent. At the same time, in many cities women have limited access to funds to cover climate-related losses or develop adaptive measures. This results in part from cultural and social barriers to education, political participation and decision-making, and from legal restrictions on capital, markets and land ownership.⁴⁶

Without empowering women to exercise leadership in climate action, there is a risk that resilience measures are less effective. Evidence suggests that improving gender equity contributes to policy and funding choices that lead to better environmental governance.⁴⁷ Currently, however, women's representation in climate governance is low. Women are underrepresented at the UN Conference of the Parties events⁴⁸ and, in 2020, just 15% of global environmental sector ministries were led by women.⁴⁹ As the International Union for Conservation of Nature puts it, 'women are always at the forefront of vulnerability, but not in decision-making'.⁵⁰



London, UK (below)
Survey respondent 2022,
age 26-35

London, UK (right)
Survey respondent 2022,
age 36-45, Lesbian

Limited awareness and lack of tangible commitments

The issue of women's safety in urban areas is gaining prominence. Campaigning groups have given the issue momentum, and have highlighted shocking incidents that have captured global attention. The debate has advanced from a narrow focus on personal safety to one of broader considerations,⁵¹ and governments have been more willing to confront the issue and open a dialogue.⁵² Too often, however, progress stalls. Commitments fail to deliver tangible impacts, and few laws or policies address violence against women specifically.

Indeed, the issue itself remains under-acknowledged and progress is hindered by a lack of data. Out of 195 countries worldwide, only 107 collect information on intimate partner violence, and a mere 56 countries on non-intimate partner violence.⁵³ Without robust evidence, laws and policies to tackle gender-based violence are more difficult to justify and advocate.

These problems persist because of misogynistic behaviours and educational deficits. Women victims of violence and abuse are still, frequently, accused of bringing it upon themselves through their behaviour or the way they present themselves.⁵⁴ In Australia, for example, 20% of young people believe women often say 'no' when they mean 'yes' in sexual contexts.⁵⁵ Social media is also complicit to encouraging and even normalising these behaviours. Across the European Union, one in 10 women have reported experiencing cyber harassment since the age of 15. In America two in 10 women aged 18-29 have been sexually harassed online and in Pakistan, 40% of women have faced various forms of harassment online.⁵⁶

This kind of victim blaming is intolerable: it perpetuates harmful beliefs that endanger women. Without education from the earliest stages of boyhood and throughout men's lives, these mindsets are unlikely to change. The actions and attitudes of men must be challenged in all contexts if we are to break the normalisation of violence against women.

31%

of survey respondents said they would be likely to report public harassment (Cities Alive Research Survey, 2022)

46%

of these respondents were men, compared with 30% of women (Cities Alive Research Survey, 2022)

37%

said they would be unlikely to report public harassment (Cities Alive Research Survey, 2022)

The absence of shortcomings, of services provided to victims of harassment, abuse or assault further impede women's sense of security. Concerns around police and other 'stewards' of safety have grown. In the UK, for example, a police officer was dismissed in 2022 for making advances on a victim of sexual assault while on duty.⁵⁷ Such events often increase mistrust in these services,⁵⁸ with severe consequences. A study in Baltimore, USA, found that inappropriate behaviour, discriminatory misconduct, and power disparities among police officers discourage women from reporting instances of intimate partner and sexual violence.⁵⁹

Here, too, the lack of representation of women is an issue. In Serbia women make up just 7.5% of uniformed officers,⁶⁰ and in India, only 10% of police officers are female.⁶¹ Taken together, these factors can prevent police forces from responding effectively to safety concerns which affect women, leaving victims without adequate help. In countries for which data is available, less than 10% of women appeal to police services following an assault.⁶² Instead, many women turn to family members or friends who, though close and trusted, are unlikely to provide the necessary mental and physical support, or bring perpetrators to justice.

I was attacked on the street a couple of years ago. It turned out the police knew of a gang attacking women, but they're not doing anything about it and they're trying to keep it out of the press to avoid mass hysteria. Absolutely crazy and unacceptable!

Brussels, Belgium (above)

Survey respondent 2022, age 26-35

Strategies

Strategies for improving women's safety and security in cities are summarised here, and described in more detail below. Each strategy includes the benefits they generate, and the actions to support implementation, which are evidenced by best practice case studies from across the world.

The implementation of these strategies will support the UN's Sustainable Development Goals (SDGs), most significantly:

- SDG 5: Achieve gender equality and empower all women and girls.⁶³



Create safer streets and public spaces by design



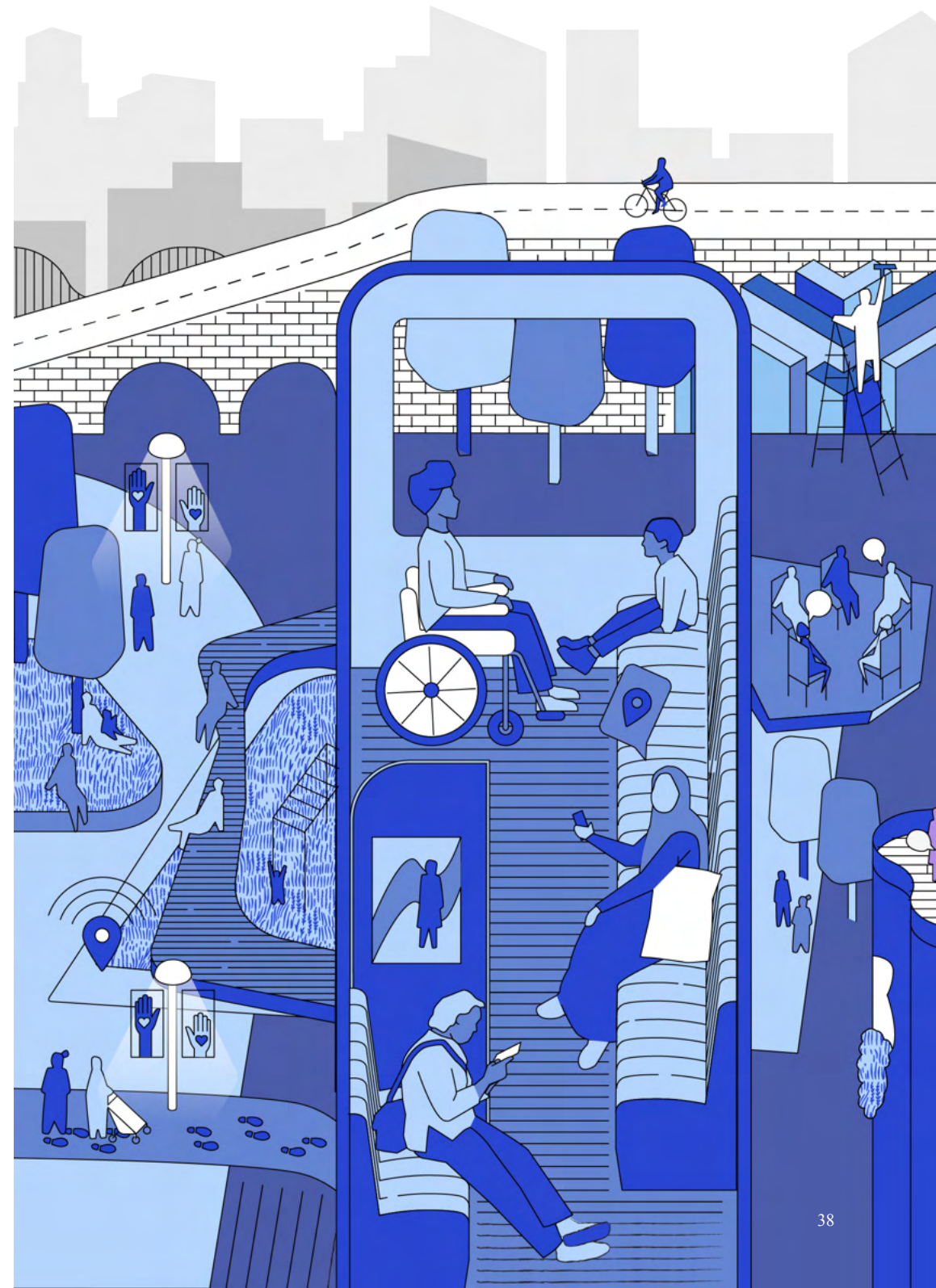
Provide safer mobility experiences



Integrate gender-responsiveness in urban climate strategies and plans



Incorporate violence prevention in laws and raise awareness





Strategy 1
Create safer streets and public spaces by design



Design spaces through a safety lens
The Lev! (Live) tunnel in Umeå, Sweden, an 80-metre-long pedestrian and bicycle passage, demonstrates planning through a safety lens.⁶⁵ The entrances to the tunnel are wide and welcoming to women and parents with children and strollers. Gradual gradients, rounded corners and natural lighting enhance sight-lines, which improves visual awareness. Calming artwork and soundscapes ease feelings of threat. High footfall generates a natural surveillance, which has been shown to make women feel more secure. The perception of safety resulting from its design has made the tunnel one of the city's main attractions.

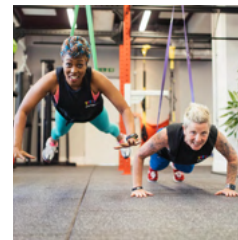


Improve lighting design in streets and public spaces
Lighting is the most important built environment factor when it comes to safety at night. In 2018, Arup and the XYX Lab at Monash University conducted research on women's negative experiences of the city in Melbourne, Australia.⁶⁶ The project used crowdsourced data from the Free to Be campaign based on over 900 safe and unsafe night-time experiences. From these insights, the team identified lighting requirements that improve perceptions of safety in cities and developed a Night-time Vulnerability Assessment. They now use this at the start of urban design processes to address night-time spatial inequity.



Benefits
Cities that incorporate safety and security into all urban systems by design enhance women's experiences of and movements within spaces, and improve their mental and physical wellbeing. Improving lighting and walkability, and creating multipurpose and multigenerational spaces, can make cities become safer, more accessible and liveable for everyone.⁶⁴ This also increases economic activity and creates new opportunities for income generation.

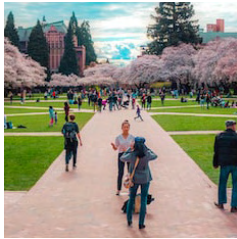
Tailor spaces for the needs of elderly women
In Singapore, the government supports elderly residents to move around the city safely.⁶⁷ It established Silver Zones, with clear signposting and road markings. The government also installed flashing LED lights on bends and roundabouts to slow down motorists. Other features include built kerb ramps, yellow tactile pavers and railings along streetways to improve pedestrian mobility. Another programme, Green Man Plus, provides residents with a card to press against traffic lights that extends crossing time by up to 13 seconds. In 2019, Green Man Plus was available at 800 pedestrian crossings and was activated almost 70,000 times per month.



Provide women-only spaces
In London, UK, a women-only gym has been set up by The Bridge, a charitable organisation that supports women's health and wellbeing.⁶⁸ The Bridge advocates for gender equity through healthy lifestyles and by connecting women to professional support. The gym itself is staffed by women from diverse backgrounds. This enables women to reclaim their fitness in a safe and secure environment. For women whose mental wellbeing has been impacted by the COVID-19 pandemic, The Bridge also offers a free programme to help reduce anxiety and loneliness.



Strategy 2 Provide safer mobility experiences



Harness data to support women's mobility
The OpenSidewalks project,⁶⁹ launched by the University of Washington in Seattle, USA, encourages a more inclusive data standard for footways. This helps pedestrians better plan journeys in advance. It allows them to avoid routes that make them more vulnerable by having to walk alone for a longer time. For women, for whom walking alone is disproportionately dangerous due to gender-based harassment and assaults, this kind of personalised wayfinding is particularly useful.



Encourage passive surveillance at transit stops
In Quito, Ecuador, transport operators installed transparent glass corridors in stations around the city. The corridors connect waiting areas where people, especially women, reported feeling unsafe. The corridors expand visibility across the stations and encourage natural surveillance. Overall, this has improved the sense of safety for women.⁷⁰ In Las Vegas, USA, the Regional Transportation Commission of Southern Nevada has installed and upgraded lighting at approximately 1,400 transit bus stops,⁷¹ whilst 300 standalone solar lights have been mounted in spaces which lack shelter or streetlights. This establishes a safe and secure environment at otherwise dark bus stops.



Benefits

Cities that provide accessible and safe mobility for women enhance their safety and security, and reduce crime. Designing mobility options for diverse needs – using gender-disaggregated data – facilitates access to opportunities, further increases women's participation in the workforce, and reduces carbon emissions.

Design around active travel routes

Adding and improving cycling infrastructure can help with women's safety in mobility, as well as being a cheaper and greener alternative to personal car use. In the UK, the award winning VeloCity⁷² concept, developed by a women-led team, lays out a strategic vision for a 'polycentric' cluster of new and 'expanded' villages connected to one another by a network of cycle routes, all within cycling distance of rail stations. In Lima, Peru, simple design interventions by the Bernard van Leer Foundation improved a very steep and unsafe key route to a childcare facility. The new, cleaner and safer route reduces travel time and delivers financial savings: walking is now an option rather than taking an expensive mototaxi.⁷³



Make transit networks fully accessible for women with disabilities

In Lyon, France, a €100 million investment made the transit network nearly fully accessible, allowing some 1.7 million people to use it.⁷⁴ Every bus in the network is completely accessible, and 70% of bus stops were redesigned for those with limited mobility. Nearly all trams and stations are also fully accessible. A service called Optiguide links vulnerable travellers with an assistant, and the public transport app highlights the most accessible routes to a location. This implementation has improved the inclusivity of the transit system and ensures that opportunities are not constrained by travel.



Strategy 3 Integrate gender-responsiveness in urban climate strategies and plans



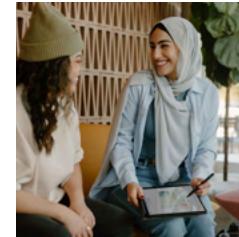
Raise awareness and join global city networks on gender equity and climate justice

The city of Dakar, Senegal, created an online learning-platform to raise awareness of climate issues. It also empowered local women as ‘Green Ambassadors’⁷⁵ and sought feedback from grassroots organisations on its mayor-led governance framework. This fostered a sense of ownership over decision-making among communities. In 2015, GenderCC – Women for Climate Justice,⁷⁶ launched the Gender into Urban Climate Change Initiative (GUCCI) focused on climate adaptation in cities. GUCCI was piloted in 14 cities across the world and staff developed recommendations based on a gender-responsiveness consultation and analysis. This increased the effectiveness of local climate adaptation efforts.⁷⁷



Promote urban sustainability and gender- led management of natural resources

In Jinja, Uganda, women have been spearheading the management of wetlands, a habitat which also supports materials for local livelihoods, for example through handicraft and medicinal uses. The Jinja Urban Women’s Wetlands Project also actively engages in new agricultural techniques, promotes the use of alternative fuels and energy sources, and provides education on the wetlands ecosystem. The women’s involvement and efforts improve urban sustainability and the management of the city’s limited natural resources.⁷⁸



Benefits

Cities that recognise the disparate impacts of climate hazards on women, respond more actively to climate challenges. Involving women in decisions and financing, and providing training and support, helps develop more effective climate adaptation and resilience strategies. This often increases the overall effectiveness of local adaptation efforts.

Increase women’s representation and leadership in climate sectors

The London Sustainable Development Commission (LSDC) works to increase the city’s ‘cleantech’ – innovations that address the causes and effects of climate change.⁷⁹ Cleantech in London is still dominated by men and three quarters of cleantech start-ups in the UK had no female founder.⁸⁰ In response, the LSDC developed an action plan to increase women’s leadership in cleantech entrepreneurship.⁸¹ The plan sets out six workstreams, and several stakeholders have committed to supporting it by, for example, creating cleantech funds for women, developing guidance and establishing award schemes for women in the sector.⁸²



Provide training for women on urban climate action

In Tilonia, India, several hundred women were trained in a solar engineering programme by UN Women. As well as learning technical skills, the women increased their income-generating opportunities and their participation in local decision-making around solar resources.⁸³ In Da Nang, Vietnam, the Asian Cities Climate Change Resilience Network (ACCCRN) partnered with local women’s groups to increase their understanding of climate hazards. ACCCRN also disbursed affordable loans for households to reinforce their properties against climate impacts.⁸⁴



Strategy 4
Incorporate violence prevention
in laws and raise awareness



Use digital methods to raise awareness and share knowledge around public safety
Safetipin, a social organisation operating globally, analyses the physical design and infrastructure services of urban spaces using crowdsourced mobile phone data.⁸⁵ In Delhi, India, Safetipin audited over 50,000 locations, including metro stations and low-income neighbourhoods.⁸⁶ The Delhi government used the dataset to fix and install additional streetlights in areas of particular concern. The police also adjusted patrolling routes in response. In the UK, the online ‘Ask for Angela’ campaign⁸⁷ provides a code phrase that women can use on a night out if they feel unsafe. Such campaigns raise awareness on women’s safety, whilst providing a support mechanism.



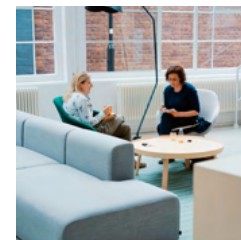
Partner with local artists to raise awareness through creative methods
In Médenine, Tunisia, local artists occupied a street to paint and create designs that raised awareness of gender-based violence. This was a celebration of Tunisia’s Law 58 – a law on the elimination of violence – which came into effect in February 2018.⁸⁸ In 2021, the street was re-named Law 58 Street at an event which included an exhibition of handicrafts by local artisans and musical performances organised by local children. Law 58 Street is now part of a broader trend in Tunisia, where public open spaces become platforms for women to participate in cultural and political decisions.⁸⁹



Benefits

Cities that provide welfare support systems against gender-based violence and build trust in services can better help victims. Raising awareness through public campaigns and education on sexual violence makes women feel safer and can influence men’s behaviours.

Operate care centres for victims of trauma and violence
In the USA, the Violence Against Women Act states that domestic violence and abuse are crimes, and provides services and support for victims of domestic violence and sexual assault. In 2022, the Act was reauthorized and included stronger provisions for those in the LGBTQIA+ and indigenous communities.⁹⁰ Learning from a similar scheme in Vienna, Austria,⁹¹ the city of Nantes, France, opened a post-trauma consultation centre in 2019 for female victims of gender-based violence. Named Citad’elles, the centre provides material, medical and psychological assistance for victims and their children. The centre brings together professional and public stakeholders to share resources and coordinate efforts to mitigate gender-based violence.⁹²



Develop community welfare systems which address violence
In Bologna, Italy, the government developed a community welfare system over the period 2016-2021. Seeking to improve gender equity, one priority was to establish a comprehensive system for receiving, counselling and supporting victims of gender-based violence. In parallel, Bologna created a municipal ‘centre without violence’: a service for men to access free counselling to manage and prevent their violent behaviours.⁹³ These services are similar to those provided in Ljubljana, Slovenia, where the city supports victims of gender-based violence through counselling, sheltering and crisis management.⁹⁴

Justice and equity

Justice and equity in the built environment refer to several factors, including governance (legislation, decision-making), land-use policies, and the availability and accessibility of services and facilities. A spectrum of stakeholders needs to be involved to improve urban justice and equity for women – from central government to city leaders, urban designers and planners, and grassroots community organisations.

The built environment affects women's experience of justice and equity in several ways. This can vary from place to place, but the research identified these key issues:

- Limited gender equity in legislation and urban governance
- Limited voice in decision-making and leadership
- Gender-blind data and urban planning
- Unequal access to land tenure



Key issues

Limited gender equity in legislation and urban governance

Gender equity is a whole-of-government issue. Many countries have adopted progressive laws on gender inclusion. Globally, the World Bank's Women, Business, and the Law Index⁹⁵, which measures the laws and regulations that affect women's economic opportunity in 190 economies, improved by 63% between 1970 and 2019.⁹⁶ However, this obscures large geographic disparities. Whilst North America, Europe and Central Asia reach scores above 90 out of 100 on the Index, the Middle East and North Africa, and South Asia score around 60. The Organisation for Economic Co-operation and Development identifies key 'bottlenecks' which stall progress towards universal gender equity in legislation.⁹⁷ Expectations of women as caregivers are the main challenge, since women perform the majority of unpaid care work globally.

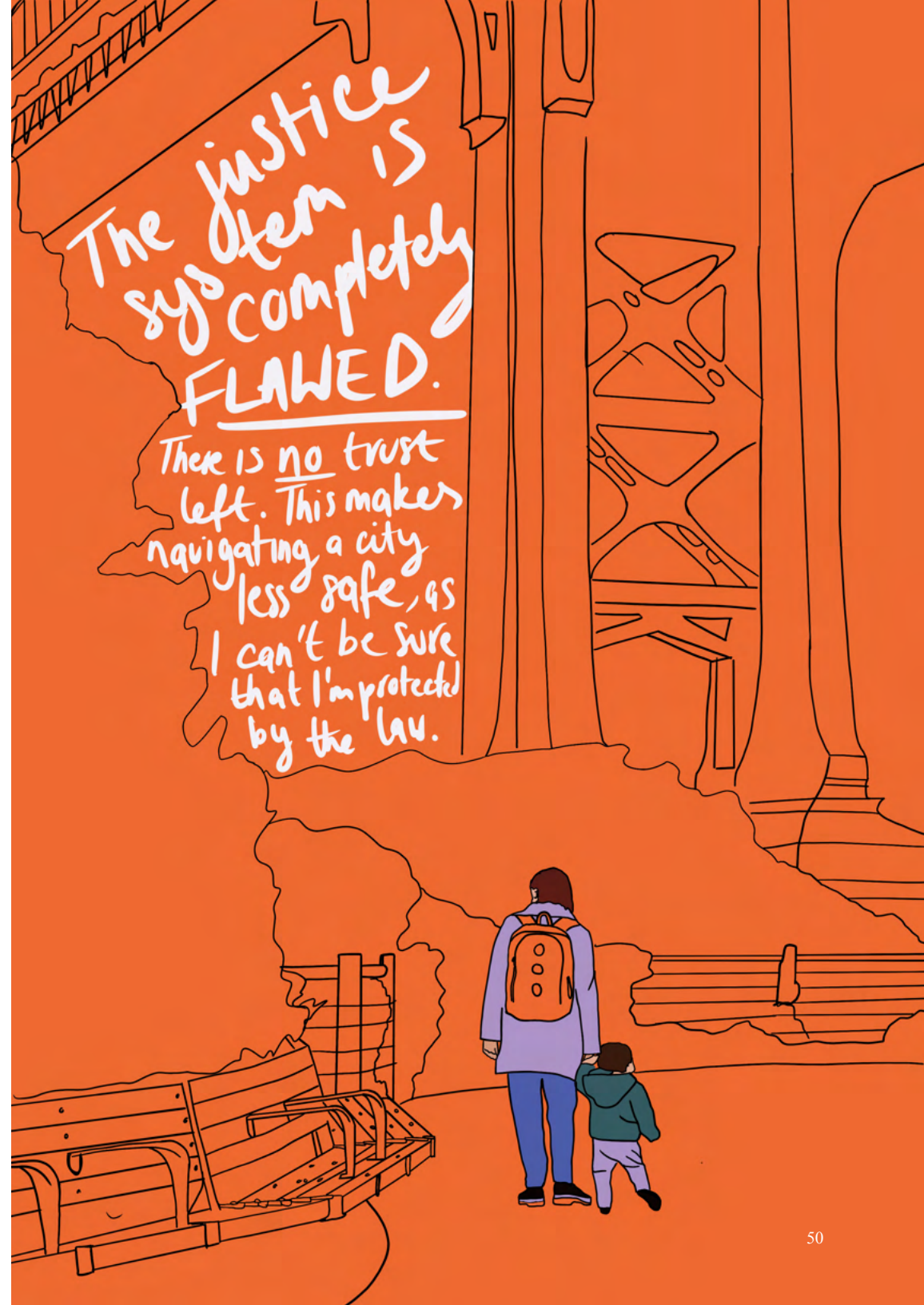
The research survey identified that leaders fail to collaborate and adopt an integrated approach in developing solutions. Every city department has a responsibility to pursue just and equal outcomes. This is because gender equity cuts across various portfolios that are interdependent, including mobility and transport, health, and economic opportunity. When departments work in isolation, it is difficult to create holistic interventions that deliver co-benefits across the board. Similarly, it increases the likelihood that certain groups or issues are ignored.

'Diversity training' is wrongly heralded as a solution to ways of working and governance mechanisms that disadvantage certain groups. A study by the Harvard Business Review (2019)⁹⁸ invited over 10,000 employees to complete diversity training: 61.5% male, 38.5% female, all located in 63 different counties across the US. The study observed a very minimal effect on the behaviour of men and white employees in general. This is particularly worrying as these people often hold the most power. If organisations fail to diversify their training programmes and implement additional actions, the next decade will see a similar lack of progress.

I've worked at federal, state, local Government, and private sector. No one thinks about equity and justice and actually acts on it.

Sydney, Australia (above)
Survey respondent 2022,
age 46-55; parent and caregiver

Liverpool, UK (right)
Survey respondent 2022,
age 18-25; bisexual; long term illness/health condition/disability



Limited voice in decision-making and leadership

Some good progress notwithstanding, women remain greatly underrepresented in key decision-making positions. As of September 2022, only 21 per cent of global government ministers were women, with only 14 countries having achieved 50 per cent or more women in cabinets.⁹⁹ Assuming business as usual, full gender parity at the highest positions of power will not be achieved for another 130 years.¹⁰⁰ In addition, in 27 countries women account for less than 30% of parliamentarians.¹⁰¹ The lowest levels of representation are in the Pacific Island States, where just 6% of seats are held by women.¹⁰² It is clear that more efforts and actions to achieve gender parity are urgently needed.

Increases in women's representation are not uniform.¹⁰³ Access to decision-making positions is differentiated by factors including age, ethnicity, and socio-economic status. Whilst white, well-educated women may benefit from increased opportunities to participate, others, such as minority-ethnic women, are left behind. As a result, the challenges and needs of some groups are overlooked. In Zimbabwe, for example, young women face barriers to civic participation in the form of a patronage-based political culture, economic inequality, care duties, hate speech, and sexual harassment.¹⁰⁴ In extreme cases, non-state and state actors actively "mute women's voices, deny validity to their experience, and exclude them from the political discourse".¹⁰⁵

So many firms are male focused and don't realise they have tunnel vision...

Kilkenny, Ireland (above and right)

Survey respondent 2022, age 36-45

Women with disabilities and LGBTQIA+ women face even more barriers to civic participation.¹⁰⁶ The UK Disability Survey 2021 found that women with disabilities are less likely to participate in decision-making activities. Consequently, places, laws and policies are not designed with them in mind.¹⁰⁷ In São Paulo, a study of 30 climate events at Brazil's Climate Observatory found that, whilst women and LGBTQIA+ people made up more than 80% of public participants, they were only invited as speakers at half of the events.

It is integral to note, however, that an increase in the representation of women in civic participation and decision-making does not in and of itself lead to equitable change. Some women do not support all women's rights, and others will not be in positions where they can easily influence or be listened to.^{108 109}



Gender-blind data and urban planning

In cities across the globe, data collection is a technical exercise that organises communities into homogenous groups. Many cities fall short on collecting and using gender-disaggregated data that would help them to understand the disparate ways in which people are affected by decisions, use the city, and access services.¹¹⁰ In Karlskoga, Sweden, the government emphasised roads over pedestrian walkways in its transport planning, because it failed to gather gender-disaggregated transport data.¹¹¹

In a world largely constructed for and by men, built environment practitioners, often unknowingly, ignore half of the population. All too often, the barriers that women, girls, and vulnerable groups face in the built environment persist because their needs go unheard by urban practitioners. For the men, who continue to hold the majority of jobs in built environment professions, these barriers are often invisible because they work using gender-biased data. This challenge stems from decades of design based on men's experiences. In the 1940's, when male architect Le Corbusier first developed his Modulor system for the scale of architectural proportion, he used a six foot-tall man as the basis for his scale of measurement.¹¹² This system shaped the entire post-war world and determined everything from the height of a kitchen counter to the size of a phone.¹¹³

The heavy underrepresentation of women in urban and built environment professions hinders progress on this front.¹¹⁴ This perpetuates the perception that these disciplines are male spaces and reduces women's access to influential decision-making positions. Without an increase in representation, city decision-makers will continue to shape homes, schools, public transport, policing, and policies with limited knowledge and awareness of how their decisions affect women.¹¹⁵

39%

of survey respondents feel that urban professionals do not consider the needs of women, compared to 8% who do (Research Survey, 2022)

20%

of male respondents feel that urban professionals consider the needs of women, compared to 6% of female respondents (Research Survey, 2022)

Built environment professionals rely on data sets that have not been updated to reflect an equitable view of city life.

This needs to change.

Adelaide, Australia (above)
Survey respondent 2022,
age 26-35

Unequal access to land tenure

The difficulties that women face in accessing land tenure and property ownership are vast. As of 2020, two fifths of the world's countries limit women's property rights.¹¹⁶ In 19 countries, women do not have equal ownership rights to property, and across 44 countries, women and men do not have equal rights to inherit assets when their spouse dies. Reforms related to the latter are the most difficult to pass, particularly in economies where social norms dictate how assets are passed to family. In South Asia and the Middle East / North Africa region, property laws either discriminate against or exclude women altogether – if they exist at all.¹¹⁷

Insecure tenure impedes women's empowerment. Without property rights, women cannot start and run a home-based enterprise; they cannot remain safe from violence and abuse, and they cannot access loans from banks who are often reluctant to lend to customers who lack traditional collateral such as land.^{118 119} In India, one study found that 49% of women who did not own a property suffered at least one form of long-term physical violence.¹²⁰ Without secure tenure, women may also experience lower self-esteem and engage less with local government.

By contrast, secure land tenure is a pre-requisite for a range of rights and freedoms, and it provides a foundation from which women can tackle multiple problems. Women's land ownership is a complex and often controversial issue. Many authorities and communities are reluctant to address it. For instance, the Uganda Land Alliance lobbies for men and women to be listed as co-owners on title deeds. Despite considerable progress and reaching parliament several times, the bill continues to be rejected.¹²¹

Strategies

Strategies for improving the justice and equity of women in cities are summarised here, and described in more detail below. Each strategy includes the benefits they generate, and the actions to support implementation, which are evidenced by best practice case studies from across the world.

The implementation of these strategies will also support the UN's Sustainable Development Goals (SDGs), particularly:

- SDG 5: Achieve gender equality and empower all women and girls
- SDG 10: Reducing Inequality - to ensure our cities are equitable and just for women and girls.¹²²



Mainstream gender-responsive planning in national laws and policies



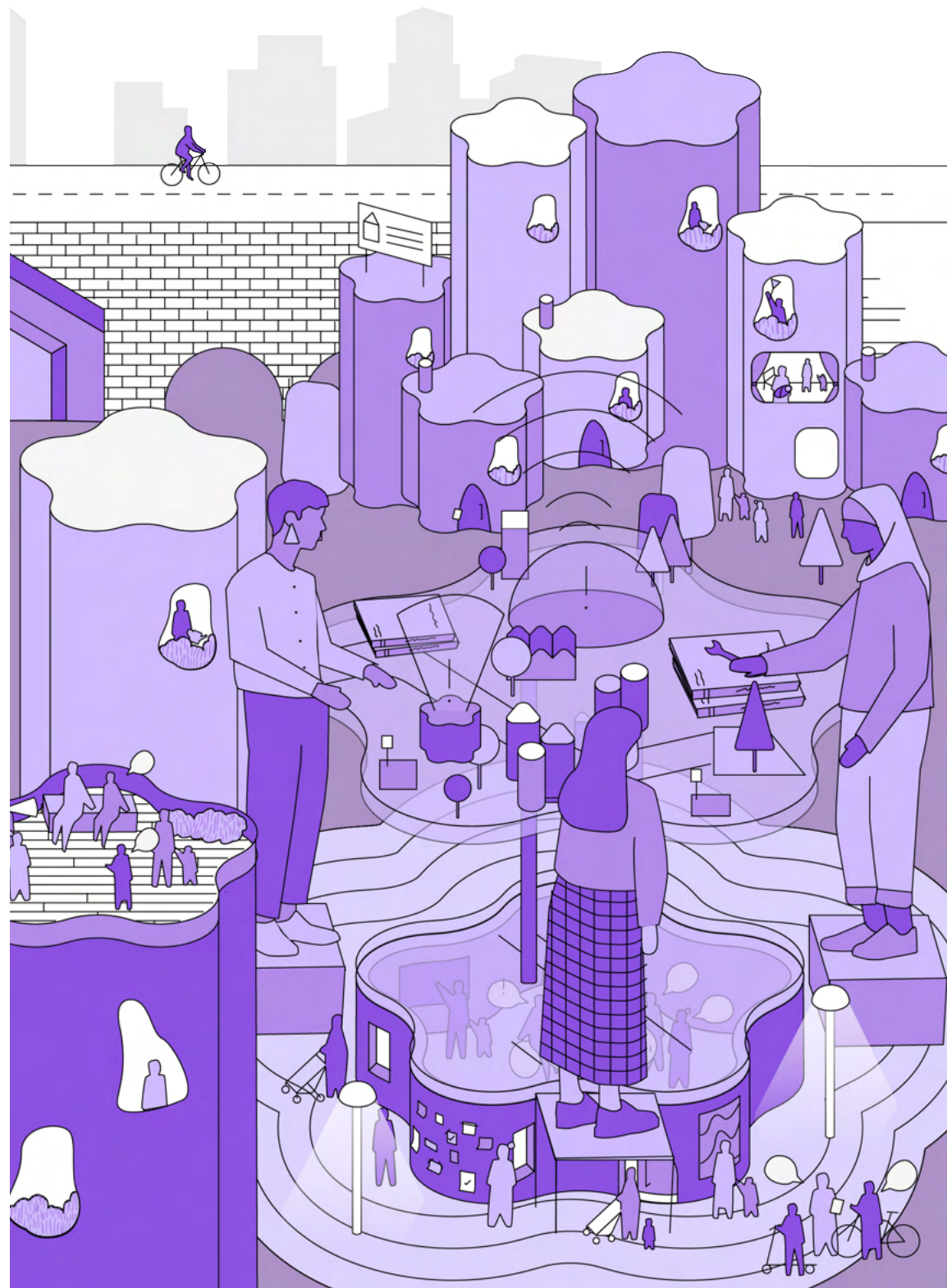
Support women participating in urban governance at all levels



Support the collection of gender disaggregated data



Protect women's right to land and property





Strategy 1 Mainstream gender-responsive planning in national laws and policies



Assess the contribution of existing laws and policies to gender outcomes

In Canada, the Government created Gender-based Analysis Plus (GBA+) to measure how people of different identities experience policies and programmes.¹²³ GBA+ is managed by Status of Women Canada, a federal government agency responsible for gender equality. Between 2020 and 2021, GBA+ achieved several things: it refined guidance for government departments on how to report on the gender and identity-related impacts of programmes, it developed training materials on how to incorporate gender issues in Treasury submissions, and it partnered with Statistics Canada to support women-owned businesses.¹²⁴



Establish a Gender Equality Policy and Agency

In Sweden in 2014, the government declared itself a “feminist government”, with the aim of mainstreaming gender equality in its national¹²⁵ and international¹²⁶ decision-making. This preceded a host of policies aimed at increasing women’s representation and combating gender-based violence.¹²⁷ At the heart of the approach are two features: a Gender Equality Policy and a Gender Equality Agency. The former is implemented through gender-responsive budgeting. The latter is responsible for mainstreaming a gender perspective across all government agencies. By 2020, the proportion of women in Sweden’s national parliament (47%) was much higher than average rates in Europe (32%) and North America (28%).¹²⁸



Benefits

While aspects of city governance are defined locally, core legal responsibilities are mainly shaped at the central level. Where gender rights are embedded in statute, it becomes easier for city authorities to adopt the legal framework and requirements needed to pursue gender equity objectives in city planning and design.

Secure buy-in and create specialist working groups for gender equity

Passing laws and policies that address gender issues is an important first step, but only their effective implementation will enable significant change to occur. Securing buy-in and endorsement from senior decision-makers and stakeholders is critical. In London, UK, the London Legacy Development Corporation (LLDC), together with Arup, developed guidance for improving the safety of women in the Queen Elizabeth Olympic Park, using findings from community consultation.¹²⁹ The guidance is being taken forward by LLDC and key site stakeholders via a working group, demonstrating shared responsibility for, and commitment to, delivering change.



Train staff on gender equality and scrutinise internal ways of working

In 2019, the municipality of Athens, Greece, trained its staff in providing non-discriminatory and equal services.¹³⁰ The Slovenian city of Ljubljana took similar measures to raise awareness of these themes among city staff and leaders.¹³¹ It is important that cities routinely reflect on their ways of working – and whether these contribute to or assuage gender inequality. In Barcelona’s Gender Justice Plan, the city aims to change its institutional culture, encouraging equality across daily practices, processes, and tools of public management. There, too, municipal staff are trained to take ‘gender perspectives’.¹³²



Strategy 2
Support women participating in urban governance at all levels



Adopt a cross-cutting gender approach to policymaking
In Bogotá, Colombia, all government entities are advised by the Secretary of Women on how to hire gender experts and incorporate a cross-cutting gender approach in their plans and policies.¹³⁴ In 2020, the government announced a new 10-year policy for Women and Gender Equity. Between 2020 and 2030, more than 2.4 billion pesos (circa £110 million in 2022) will be invested.¹³⁵ The City Development Plan requires that all policies are designed considering their differential impacts on men, women and other groups.¹³⁶



Create an advisory board for gender equality at the city level
In Leipzig, Germany, the city government established an Advisory Board for Gender Equality in 2001. Since then, the committee aims to ensure local policies affect men and women equally. Among the board are representatives from political groups, chambers, unions, women's associations, academia, and more. This ensures a broad constituency of interests is represented in decisions, which in turn increases the likelihood that policies are inclusive and relevant to as many groups as possible.¹³⁷



Benefits

City leaders who mainstream gender issues and representation of women in all decision-making activities ensure that gender equality is pursued across their administration. Increased participation of women enables them to advocate their needs across city government. This results in greater socio-economic and environmental benefits for all residents, as women often plan and design with diversity in mind. This can be a pathway to creating better-functioning, more inclusive, equal and sustainable cities.¹³¹

Create gender-inclusive participatory tools

The City for All Women Initiative (CAWI) is a group of Canadian women from diverse communities, organisations and academia. In Ottawa, CAWI designed an easy-to-read guide on how women can raise their concerns to city government. It also provides a training programme, consisting of five full-day workshops where women learn about municipal elections, city budget processes and the functions of city hall. Women are grouped into Neighbourhood Action Teams, which can channel shared grievances to key influencers. Crucially, participants often come from disadvantaged and underrepresented groups.¹³⁸



Partner with community organisations to increase civic participation

In New York City, USA, Women Creating Change (WCC) brings together a diverse group of women to create a more just and equitable city, where “all women are civically engaged”. WCC has a special focus on excluded groups who are often ignored by decision-makers. Its Blueprint for Women's Civic Engagement in New York City sets out barriers to women's civic engagement.¹³⁹ The group partners with organisations, city government and individuals to develop programmes and influence policies that support women's participation.¹⁴⁰



Strategy 3
Support the collection of
gender-disaggregated data



**Use gender-disaggregated data for
designing streets and public spaces**

In Barcelona, Spain, the city uses gender-disaggregated data to inform policy changes. The city adopted a new measure labelled ‘Urban Planning with a Gender Perspective’, which advocated for changes to street topographies. The city also conducts safety audits of existing street layouts and implements changes if these are considered unsafe.¹⁴¹ In Sweden, such data showed how the approach to clearing arterial roads of snow first adversely impacted women.¹⁴² It revealed that women and children predominately used cycleways. Clearing them first decreased accidents by half and saved the local government money.



Use gender-disaggregated data for financial programmes

In Bangladesh, the central bank used supply-side gender disaggregated data to issue regulations instructing banks and non-bank financial institutions to provide collateral-free loans to women entrepreneurs.¹⁴³ Based on insights from supply-side gender-disaggregated data, the state-owned commercial bank in Chile, set up a programme to provide women entrepreneurs with access to business capital, as well as education and networking opportunities.¹⁴⁴ In Nigeria, the government also used demand-side gender-disaggregated data to improve agriculture finance for women.¹⁴⁵

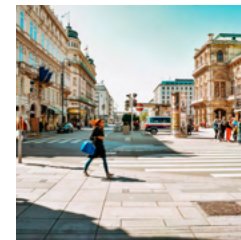


Benefits

Cities that collect and use gender-disaggregated data for planning and design, get a clearer picture of various groups’ needs, and tackle more accurately the many challenges that women face. Data that reflects different experiences based on gender helps cities respond to inequalities and to allocate resources accordingly and equitably.

Leverage gender disaggregated data to monitor progress

In 2021, the city of Los Angeles, USA, published Measuring Gender Equity in Cities: An Intersectional Set of Proposed Indicators.¹⁴⁶ The report sets out “critical indicators” for measuring progress on gender equity. These indicators apply to various themes, including medical services, economics and labour, and the built environment. In Berlin, Germany, the city measures key indicators for its annual Gender Data Report.¹⁴⁷ In Barcelona, Spain, and San Francisco, USA¹⁴⁸, the governments use gender and race data to ensure public transport, cycling and walking routes are suited to men’s and women’s needs, and that they provide low-carbon travel options.¹⁴⁹



Monitor the impact of spending on gender equality

Since 2005, the government of Vienna, Austria, has asked its Finance Department to develop and publish a chapter on gender in the municipal budget and its financial statements. Eventually, budgeting became the fiscal policy instrument of gender mainstreaming. All districts in Vienna now monitor who benefits from financial resources and services, how services are used, and whether the distribution of resources increases or decreases existing differences between the sexes.¹⁵⁰ The success of gender budgeting in Vienna is such that, in 2009, the Austrian federal government made gender budgeting a legal obligation in accordance with the constitution.



Strategy 4 Protect women's right to land and property



Engage women and girls in creating land tenure policies
In Cochabamba, Bolivia, some female residents felt unempowered by land tenure policies.¹⁵² Habitat for Humanity partnered with communities in District 9 of Cochabamba to engage women, particularly female heads of households, in dialogue on land-tenure regularisation, and policy on secure tenure and urban land governance. It built partnerships between local NGOs, academics and community members to monitor policy change. Habitat for Humanity encouraged a range of stakeholders to improve civic participation and integrate urban policies on land planning, secure tenure and affordable housing.¹⁵³



Support women's land action trusts
Women's Land Access Trusts are an important mechanism that supports poorer urban women to access land and housing, as well as financial advice and support. In Ghana, Kenya, Tanzania and Uganda, these Trusts act as intermediaries between low-income women's housing cooperatives and financial institutions, local authorities and development partners. Through these trusts, women can facilitate discussions and provide opportunities for communities to raise their concerns with decision-makers. As well as providing affordable housing loans, the Trusts offer business advice and training for female entrepreneurs, with a view to maximising their income and generating micro-credit loans from revolving funds.¹⁵⁴



Benefits

Secure land tenure is a prerequisite for a range of rights and freedoms, including access to finance opportunities. Cities that make legal, political and practical efforts to extend and preserve women's land rights significantly advance gender equity and justice. When women have decision-making power over the household assets and budget, their decisions often benefit the entire household, for example through sending their children to school or starting small businesses,¹⁵¹ which in turn benefits the wider economy.

Create networks of community finance savings groups
Micro-credit initiatives, such as the Grameen Bank, often target women as their primary borrowers because of their resilient and sustainable economic decision-making. Women invest approximately 90% of their earnings back into their families, compared with 35% for men.¹⁵⁵ The Shack Dwellers Federation of Namibia (SDFN) is a network of community-led savings groups that aims to secure affordable land, shelter and infrastructure services for low-income urban households.¹⁵⁶ Women currently make up almost 70% of the SDFN's 30,000 savings group members and they often play a leadership role.¹⁵⁷



Provide training for women on land rights
In Nairobi, Kenya, the Huairou Commission is a women-led social movement that supports women with paralegal training on land rights. Community watchdog groups liaise with local councillors. Over time, these watchdogs have successfully obtained land ownership and certificates of tenure, whilst ensuring institutional protection of women's land rights. Within their first year, the watchdog team resolved 12 cases of land dispossession, and land dispossession cases dropped by 65%. Furthermore, local institutions became more understanding of land problems, and the women became trusted advisors and experts on land and property rights.¹⁵⁸

Health and wellbeing

The built environment can play an influential role in supporting and improving the health and wellbeing of women. It can provide for women's specific needs relating to physical and mental stability. It can also, directly and indirectly, counteract the many ways in which gender-based discrimination causes distress and leads to disproportionate health risks.

Cities that work for women's health and wellbeing seek to improve on several fronts: they raise the standards of sexual and reproductive healthcare; they provide high-quality water and sanitation facilities; they create caring, green and active environments, which are accessible through safe and inclusive mobility options.

How the built environment impedes women's health and wellbeing varies from place to place, but the research identified these key issues:

- Inadequate public spaces, green areas and active mobility
- Inadequate healthcare facilities and services
- Inadequate water, hygiene, and sanitation facilities
- Inadequate accommodations and care homes



Key issues

Inadequate public spaces, green areas and active mobility

Health and wellbeing are determined by the urban space people reside in. The quality – as well as, crucially, the accessibility and inclusivity – of public, green and blue spaces strongly impact how liveable a city can be. Their inadequate supply can lead to poor mental and physical health, to low confidence levels and to social disconnectedness. Evidence from Barcelona, Spain, for instance, found that increasing access to green space could prevent more than 100 premature deaths each year.¹⁵⁹

This issue affects everybody, but it disproportionately affects women in cities. Poor contact with nature amongst women can also influence their mental health. Research found that both men’s and women’s perceived stress was higher when they were less exposed to green space, but that the effect on women was significantly greater.¹⁶⁰

Women’s use of the public realm is affected by how inclusive and accessible public spaces are. Poor mobility, gender bias, ageing and disabilities, fears of gender-based harassment, lack of toilet and baby changing facilities, cultural concerns and stigma around breast or chestfeeding: they can all reduce the willingness of women to enjoy public, green and exercise spaces with the same freedom as others. At present, these spaces are often organised through assumptions about gendered use of space. This homogenous approach to urban design marginalises those who do not conform, resulting in intersectional prejudices felt by different women.

For elderly women and women with disabilities, public and green spaces are not just inaccessible. They can be downright exclusive. For instance, wheelchair users cannot access typical park swings, and autistic people may find busy spaces overwhelming. In a study in Denmark, some respondents reported “being stared at”

76%

of survey respondents believe access to green and blue infrastructure is vital in making an area a healthy place to live
(Research Survey, 2022)

67%

of these respondents were women and non-binary individuals
(Research Survey, 2022)

1 in 3

UK parents avoid breast/chestfeeding in public
(Research Survey, 2022)

in public open spaces.¹⁶¹ Experiences like this often lead to women with disabilities isolating themselves from social opportunities and struggling to secure genuine friendships. This in turn furthers the stigma that ‘disability equals inability’.

Other research highlights the cognitive load associated with planning and undertaking a journey without knowing whether a public or green space is accessible or safe – be it about wheelchair-accessibility or about how easy it is to get to and navigate. People affected by such concerns often find staying at home a preferable option when compared to this stress.¹⁶² Studies also indicate that one negative experience is enough to put anyone off returning to a place for good.¹⁶³ The benefits of urban green space are in this way lost for marginalised communities.



Additionally, individuals who choose to breast or chestfeed their children often find public open spaces and parks to be inaccessible. The stigma surrounding this can cause many women, non-binary people and transgender men to feel embarrassed when breast or chestfeeding in public, or even to be asked to stop or relocate. In the UK, more than one in three parents avoid breast or chestfeeding in public, and six out of ten attempt to hide the activity where they can. This can lead to isolation, feelings of shame, and a reduction in breast or chestfeeding rates amongst parents.¹⁶⁴

Research shows how many major cities' transport systems serve a travel pattern more typically experienced by men: the 'home to work and back again' journey. This has resulted in spider-like networks of roads and railways branching out of a city centre.¹⁶⁵ Women, in contrast, more commonly have to balance work with errands and care duties such as transporting children, visiting elderly relatives and doing shopping, in addition to their commute. This succession of (usually shorter) journeys – known as 'trip chaining' – increases women's reliance on a more expensive and time-consuming combination of public transport facilities, or on personal car use. A study in Dublin found that 79% of women considered a car to be a necessity. This figure rose to 95% outside of the capital.¹⁶⁶ With dependence on the car remaining high, women and girls continue to be underrepresented in modes of active travel. In the US, for instance, men make 76% of all cycling trips, a number compounded because women cyclists typically experience an intimidating traffic environment, low confidence, and anxiety over appearance and harassment.¹⁶⁷

My biggest challenges are finding public spaces that include green space which feel welcoming and safe as a queer Black biracial woman.

I want spaces that I can exercise in or read or have a picnic and play games with friends, that aren't all concrete and that bring the disparate parts of the city together.

Dayton, Ohio, USA (above)
Survey respondent 2022,
age 26-35; queer; minority/
marginalised group

76%

of female respondents stated fear (lack of safe routes) as a barrier to their health and wellbeing (Research Survey, 2022)

Inadequate healthcare facilities and services

With cities lacking adequate healthcare facilities and services for women, and poor access to existing ones, many women are often left feeling ignored, discriminated against, and uncared for. This has negative impacts on their physical conditions and wellbeing.

Women outlive men everywhere in the world – particularly in wealthy countries. However, the gap between men's and women's life expectancy is narrowest where women lack access to health facilities and services.¹⁶⁸ In low-income countries, where health services are limited, 1 in 41 women dies from a maternal cause, compared to 1 in 3000 in high-income countries.¹⁶⁹ Income also affects life expectancy in individualised ways. When women cannot afford to access healthcare facilities and support, they and their children are at higher risk of illness, injury and death. For older people and people with disabilities, limited physical access to in-person health facilities impinges on their wellbeing. In the US, low-income women are typically uninsured, and in 2016, half of them reported going without necessary healthcare due to costs; this includes pap smears and mammograms.¹⁷⁰

Limited access to healthy nutrition is a key threat to women's health, particularly during pregnancy and while breastfeeding as women have specific nutritional requirements at these times. Barriers to nutritional access for women include costs and gender inequity.¹⁷¹ Ensuring these needs are met is vital not only for women, but also for their children. Yet, women are twice as likely as men to suffer from malnutrition.¹⁷² In India, for example, 33% of married women aged 15 to 49 are undernourished; 56% of girls aged 15 to 19 suffer from anaemia, and pregnant girls under the age of 20 have a 50% greater risk of delivering undernourished children.¹⁷³ Malnourishment results in higher healthcare costs, but it also reduces productivity and slows economic growth, which further perpetuates the poverty cycle in low-income countries.

Health and wellbeing | Key issues

Another key issue is mental health. Girls and young women aged 18 to 24 have emerged as the highest-risk group for mental illness globally. For women, 75% of mental health issues are established before reaching the age of 24. These issues are often rooted in physical and sexual violence, childhood trauma and poverty. For example, 53% of women who have a mental health disorder have experienced abuse of some kind, and 16% have post-traumatic stress disorder.¹⁷⁶ Lesbian and bisexual women may also be more likely than heterosexual women to suffer from depression.¹⁷⁷

A gender bias persists within mental health care. Women in India accounted for 36% of global female suicide deaths in 2016, making suicide the leading cause of death amongst women aged 15 to 29. Despite this, women's mental health is not taken seriously, and their suicidal behaviour tends to be dismissed as manipulative and attention-seeking.¹⁷⁹ A 2018 study found that doctors often perceive men experiencing chronic pain to be brave but view women as emotional.¹⁸⁰ This stigma makes women and girls reluctant to seek help. Furthermore, as gender bias intersects with racial oppression, racialised women are even more likely to be doubted in terms of pain.

Poor funding of mental health services obviously drives their lack of provision, and the World Health Organisation highlights a global shortfall in investment.¹⁸¹ Without more funding towards mental health support, women will continue to suffer and mortality rates for young girls due to suicide will remain tragically high.

Manchester, UK (right)
Survey respondent 2022,
age 26-35



Inadequate water, hygiene and sanitation facilities

Inadequate water, hygiene and sanitation facilities is a key issue for women in cities across the globe. It means that women often have to walk long distances or wait in long queues. This renders women's lives – and their role as parents and carers – all the more difficult, and takes up time for leisure, education and employment opportunities. The heightened risks are not only linked to hygiene, dignity and an increased likelihood of long-term health issues, but also to personal safety. When women have to search for water and sanitation facilities at night and in isolated and vulnerable areas, they face added risks of sexual abuse and exploitation.^{182 183}

According to the United Nations, one in four people do not have access to safe drinking water.¹⁸⁴ By 2030, global water demand is estimated to increase by 50%,¹⁸⁵ and globally, women and girls bear the responsibility of water collection in 8 out of 10 households.¹⁸⁶ Therefore, without safe and accessible drinking water, it is, thus, disproportionately harder for women and girls to lead productive, healthy lives.¹⁸⁷

Women and girls also have particular hygiene needs, especially during menstruation and pregnancy. Adding childcare and ageing bladders to this list of needs means that women require toilet and sanitation facilities more often, for longer periods of time and to a higher quality.¹⁸⁸ Despite this, public toilets and sanitation facilities are rarely designed with women or other vulnerable groups in mind. At present, 1 in 3 women globally do not have access to high-quality, inclusive, safe and adequate toilets.¹⁸⁹ Instead, women must wait in long queues, search endlessly for accessible, gender-neutral or baby-changing toilets, and often even pay to access facilities.

The key issue is always queuing for the women's loos.

Women take longer in loos than men (on average) for a variety of reasons – but this is never factored into planning.

Dayton, Ohio, USA (above)

Survey respondent 2022, age 26-35; queer; minority/marginalised group

Period poverty – the state of being unable to afford menstrual products as and when needed – is a global issue, affecting an estimated 500 million people who menstruate.¹⁹⁰ Whilst this has a clear impact on physical health, causing bacterial infections and thrush, the psychological impact is also considerable. Period poverty also affects mobility and vulnerability, especially for migrants, asylum seekers and those without a permanent home. Another consequence is missing out on education employment opportunities, and on leisure events. In India, almost 23 million girls drop out of school every year upon starting their period due to a lack of access to sanitary facilities and education on menstrual hygiene.¹⁹¹

Homeless women face particularly intense problems. They lack access to hygiene facilities, menstrual products, prenatal care and contraceptives, all of which negatively impact their physical and mental health and wellbeing. In the UK, 74% of homeless women have a physical health issue and 64% experience mental health issues.¹⁹² Omitting homeless and vulnerable women from consultations and city plans will only aggravate the issue and result in further tragic outcomes.

Inadequate accommodations and care homes

The provision of safe, accessible and affordable shelters and social housing for women is a health-related issue. Globally, women are struggling to access homes on their own. Accommodation and care homes, particularly for older and vulnerable women, are often unaffordable and of poor quality. When women are struggling to pay their bills, worrying about the threat of eviction, or living in damp, crowded spaces, they and their children can face both physical and mental illness.

Additionally, traditional housing models are not always designed with a diverse range of needs in mind, including those with disabilities, and elderly, vulnerable, and LGBTQIA+ women. Rather, they are typically designed and organised for an idealised family unit through assumptions about gender, use of space and the heteronormative nature of housing estates.¹⁹³ As a result, women frequently end up living in spaces in which they feel uncomfortable, unsafe and unsupported. The gender pay gap also means they are paying more, proportionally, than men for these spaces.

With the global population of people over 60 years of age expected to reach 2.1 billion by 2050, there is a need to think beyond traditional housing and care home models to design for diverse ageing communities.¹⁹⁴ Women make up the majority of this population bracket, and older women across the globe are also statistically more likely to live alone than men. This makes them particularly vulnerable to challenges that come from combined solitude and reduced mobility.¹⁹⁵ In Italy, for example, nearly 50% of women aged 75 and over live by themselves and are experiencing loneliness; so much so that Italy ranks fifth worldwide for self-reported loneliness.¹⁹⁶ Not only does this impact on the mental health of older women, but it means no one is around to help them deal with physical pain or injury.

55+

In the UK, queer people over the age of 55 are more likely to be single and living alone than older straight people¹⁹⁷

50%

of women aged 75 and over live by themselves and experience loneliness in Italy¹⁹⁸ (Italy ranks 5th in the world for self-reported loneliness)¹⁹⁹

3-8%

In the USA, same-sex borrowers experience a 3-8% lower approval rate by mortgage lenders - and higher interest rates and/or fees for approved loans²⁰⁰

Less likely to have children, older LGBTQIA+ women more frequently lack someone to look after them and keep them company. In fact, in the UK, queer people over the age of 55 are more likely to be single and living alone than older straight people.²⁰¹ As such, LGBTQIA+ women may turn to care homes and retirement communities for support. As they transition into these heteronormative shared spaces, these women often face having to 'return to the closet' to avoid isolation and outdated homophobia, which impacts on their mental health and sense of belonging.



Global respondent (above)
Workshop participant, 2022

Strategies

There are strategies for improving health and wellbeing for women in cities. The following pages present four possible ones. The description of each strategy includes the benefits generated, what actions support its implementation, and evidence drawn from best practice case studies.

These strategies also support the UN's Sustainable Development Goals (SDGs), particularly:

- SDG 3: Ensure healthy lives and promote wellbeing for all at all ages
- SDG 5: Achieve gender equality and empower all women and girls
- SDG 10: Reduce inequality within and among countries
- SDG 11: Makes cities and human settlements inclusive, safe, resilient and sustainable.²⁰²



Create inclusive, active and restorative public spaces and green areas



Increase access to physical and mental healthcare and nutrition facilities



Enhance access to inclusive water, hygiene, and sanitation facilities



Provide adequate accommodation and housing models





Strategy 1

Create inclusive, active and restorative public spaces and green areas



Increase availability of, and access to, green and blue environments

In Singapore, high-quality green and blue spaces have been incorporated amongst high-rise cityscapes. Gardens by the Bay, for example, boasts a park with three waterfront gardens and eighteen Supertrees – housing over 162,900 plants of 200 species.²⁰³ In 2013, Gardens by the Bay partnered with Girl Guides Singapore to launch a community outreach initiative that encourages girls to access and explore the Gardens and play an active role in maintaining the country’s biodiversity and heritage.²⁰⁴



Provide inclusive and accessible breast and chest feeding spaces

At Penn State University in Pennsylvania, USA, lactation stations are provided across multiple campuses for students, faculty, staff and partners who need to breastfeed or pump whilst on site.²⁰⁵ The stations are secure and private, and can be booked for thirty-minute blocks. They feature a desk, chairs and electrical outlet. Some stations also include a sink, refrigerator, telephone and toys. This enables safe and sanitary breastfeeding but also creates spaces in which people do not feel stigmatised for breast or chestfeeding and instead are catered for by their surroundings.



Benefits

Cities that provide high-quality, inclusive public realm, such as parks, gardens and playgrounds, help in promoting women’s mental and physical health, by alleviating stress, and encouraging exercise and active lifestyles. Creating such places also benefits the wider community by strengthening social cohesion and reducing exposure to air pollutants, noise and excessive heat.

Promote sport facilities and physical activity in public spaces

In 2019, Sport for Women in Urban Places (SWUP),²⁰⁶ – in collaboration with companies from France, Spain, Portugal, Italy, Romania, Bulgaria, and the Netherlands – produced guidelines for promoting physical activity for women in urban public spaces.²⁰⁷ Using the guidelines, SWUP helped implement the Mulheres Ativas (Active Women) programme in Guimarães, Portugal, in which the city held a free workshop for women to discuss barriers to physical activity, such as poor health, ageing and pregnancy. They also held weekly gymnastics classes and invited health professionals along to offer advice.



Build inclusive play and exercise spaces

In Cherry Hill, New Jersey, USA, Build Jake’s Place,²⁰⁸ a non-profit organisation, has helped create two all-inclusive playgrounds for children and adults of all abilities. These playgrounds feature cushioned surfaces, wide ramps, sensory activities, a wheelchair accessible glider, specialised areas for people with autism, and security features. It also includes an accessible baseball field with a synthetic surface for wheelchairs and a fully accessible basketball court, allowing children and adults with disabilities to get involved in sports.



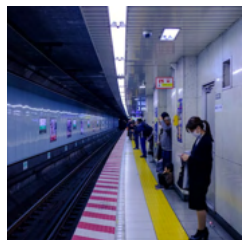
Strategy 2

Increase access to physical and mental healthcare and nutrition facilities



Improve healthcare access through mobile services

In Krishna District, India, the Tata Trusts introduced a mobile service to improve healthcare access in remote locations.²⁰⁹ This includes mobile medical units, 20 telemedicine centres, pharmacies, consultation rooms, a doctor's hub, and one diagnostic laboratory. This outreach approach acknowledges the healthcare barriers faced by women on an intersectional basis – age, disability, income, caring responsibilities and remote living, which all affect how easy it is to access treatment. This enables patients to save 70% on medical expenses, to access their prescribed medication regularly and to attend their diagnostic check-ups.²¹⁰



Implement 'nudge techniques' to improve women's mental health

Nudge techniques in public open spaces can influence behaviour positively and help respond to mental health challenges. In Japan, where women are more likely to die by suicide through using the railway network than men, blue lighting was implemented in 11 train stations to enable a calming effect. This resulted in an 84% decrease in suicides by all genders between 2000 and 2010 compared to the other stations studied without blue lighting.²¹² The effect of the blue lighting indicates how 'nudge techniques' can affect mood and behaviour, making women healthier and cities less hostile.



Benefits

Cities that support the lifelong health and wellbeing of women provide high-quality, gender-responsive facilities. Reducing the risk related to maternal complications and treating malnutrition, especially in those who breast or chestfeed, expands women's life expectancy and lower child mortality. Facilities that cater to diverse needs, including mental illness, help reduce the social burden of healthcare and open economic opportunities to counteract the poverty cycle.

Establish community-based cooking centres and vegetable gardens

The Bandung Public Health Service, in Indonesia, launched a government funded scheme (2013 to 2020) which aimed to reduce the number of children under five facing malnourishment; something that affected 12% of children on average, but 37% of children with disabilities.²¹³ The initiative involved OMABA, a community-based cooking centre, where women were trained to cook nutritious food, and could also take additional courses in finance and business. The scheme had a positive health impact on children and young girls, and empowered local women to gain essential life skills.



Provide market spaces for women to sell their own produce

In 1932, the Montgomery Farm Women's Cooperative Market opened in Bethesda, Maryland, USA. Making use of a previously vacant market, 19 women set up small stands to sell fresh produce, including meat, vegetables and baked goods. The purpose of the market was to serve locals looking to purchase healthy produce, but also to help local women to generate and sustain an income. Whilst the market is no longer run solely by women, it remains a space for empowering women within the local community.²¹⁴



Strategy 3

Enhance access to inclusive water, hygiene, and sanitation facilities



Implement accessible and community-led water facilities

Water for All²¹⁵ is a global organisation improving access to safe drinking water around the world. They match-fund money raised by employees and use this to implement projects in locations where drinking water is limited. In Ulaanbaatar, Mongolia, for example, 'Project Drinking Water Mongolia (DWM)'²¹⁶ provides safe drinking water by tapping into ground water sources, including nine deep well supply systems. To ensure their correct use and maintenance, DWM aims to educate 900 households on water contamination, provides free training workshops to residents, and allows local communities to share ownership of facilities.



Benefits

A hygienic sanitation infrastructure is essential for women's health and wellbeing, given the specific requirements linked to menstruation, pregnancy and menopause. A wide provision of facilities offers women privacy and reduces gender-based assaults. Easily available drinking water benefits everybody, and it removes the need to walk long distances, a burden often placed on women. Enhanced wastewater systems reduce the transmission of diseases and protect the environment.

Partner with local business to enable the public to use their toilet facilities for free

In Richmond, London, UK, the borough council introduced a 'community toilet scheme' which enables local businesses to provide access to free, clean, safe and accessible toilets.²¹⁹ All members of the public can use the premises' toilet facilities without having to make a purchase. At present, 25% of the 70 local businesses involved offer baby changing facilities, and half are wheelchair accessible. The council have signposted the facilities and developed an online interactive map. They are incentivising the initiative through financial compensation (£1,000 per year) and business promotion.²²⁰



Provide sanitation spaces for homeless women

The city authority in Jersey City, New Jersey, USA, transformed two out-of-use school buses into respite stations for homeless women who require safe spaces.²¹⁷ The 'Health Buses' are fitted with showers, toilets, laundry facilities, Wi-Fi, a medical consultation room and a lounge area.²¹⁸ The city authority is also coordinating with housing agencies to help homeless women prepare for a brighter future. Such outreach programmes are important for the mental health of homeless women as well as their physical health, sending out the message that they are seen and actively offered support.



Provide accessible sanitary products in all toilet facilities

Scotland, UK introduced the 'Period Products (Free Provision) (Scotland) Act 2021', which requires free sanitary products to be available in public buildings, including libraries, community centres and other public offices.²²¹ The Act acknowledges that transgender men and non-binary people may also have periods and experience period poverty. As such, free period products are provided in women's, visitors, and men's toilets so that anyone can use them. The principal objectives are fewer missed opportunities and a reduction in stigma surrounding period poverty.



Strategy 4
Provide safe and adequate accommodation and housing models



Design housing which meets the needs of vulnerable women and their children

In Durham, UK, Durham Action on Single Housing's 'vulnerable women's project' provides accommodation and support to vulnerable women who have multiple and complex needs. The shared accommodation can house up to eight women and is staffed all year around, 24 hours a day. The women may have experienced family and relationship breakdown, poor physical and mental health, substance misuse, sexual exploitation, domestic violence and/or childhood trauma.²²² They are supported based on their unique needs to help the women repair their lives and move on.²²³



Build intergenerational care homes

In the Netherlands, Humanitas operates an intergenerational care home, providing free accommodation to six students in exchange for interaction with 160 older residents.²²⁴ Together, they offer support to neighbours with special needs, and are responsible for communal vegetable and flower gardens. This approach has had a positive effect on all involved. The students, in particular, displayed a strong appreciation for the personal growth and development attained through this experience.



Benefits

The global housing crisis is a women's issue: it influences abuse and homelessness. Safe shelters, social housing and affordable care homes provide strong support for women and improve their health and wellbeing. The reduction of loneliness and the sense of belonging derived from adequate accommodation benefits women with disabilities, and ageing and vulnerable women in particular, but addresses a pervasive housing crisis.

Create dementia homes and villages with well-designed security features

In Weesp, the Netherlands, the Hogeweyk, a non-profit inclusive living community provides a safe and secure community for residents with severe dementia to continue an active, sociable lifestyle with maximum autonomy and freedom.²²⁵ The complex is self-contained and provides outdoor space which residents can access freely. To ensure comfort and familiarity, residents can select one of four lifestyle options: urban, homely, formal or cosmopolitan. Their homes and daily activities then reflect the option they best respond to. Overall, this approach has helped to reduce isolation and fear for those in Weesp who are living with dementia.



Design inclusive co-housing spaces for women of all identities

London Older Lesbian Cohousing (LOLC) are a collective of diverse lesbian women, aged 50+, developing an intersectional approach to residential accommodation.²²⁶ They have partnered with housing provider L&Q to build 25 dwellings with shared facilities, including 10 one-bedroom flats and 15 two-bedroom units. Seven will be rented at London Affordable Rent. The members of LOLC have identified their needs and the dwellings are being constructed to their specifications.²²⁷ The benefits of the scheme will extend far beyond the physical provision, as LOLC aim to create a safe and diverse community built on democratic and feminist principles.²²⁸

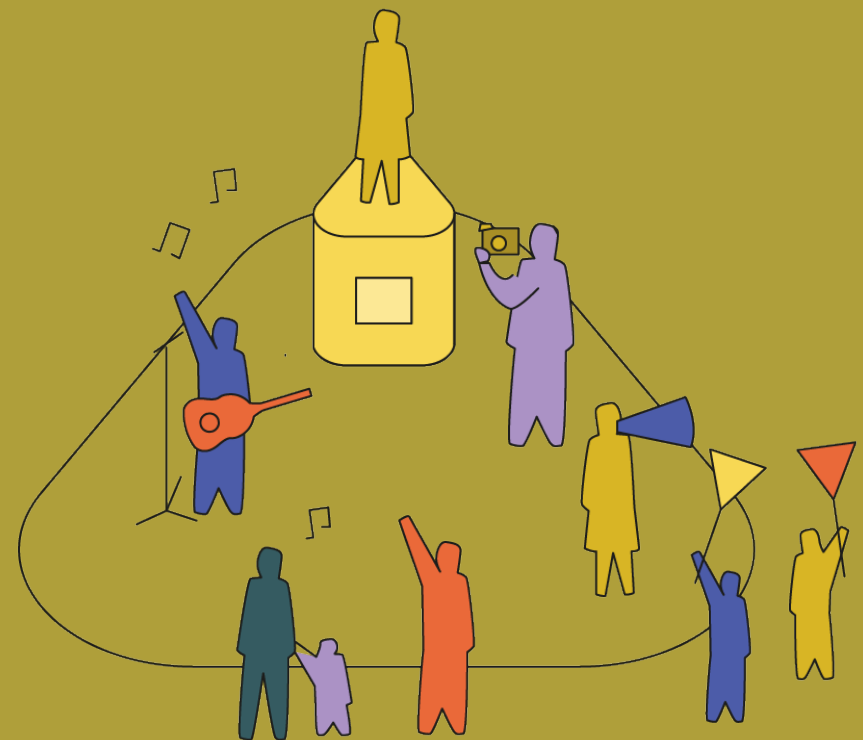
Enrichment and fulfilment

Cities affect our experience of the world and how empowered we feel moving through it. The types of spaces, facilities and events cities provide, and the hierarchies and narratives they promote, can help – or hinder – women as they seek to fulfil their own potential and achieve a meaningful and rewarding life.

Cities that work for women address their needs for personal and professional development, sense of self, and social interactions. They also aim to counteract gender-based discrimination that leads to disappointing and frustrating life experiences.

The built environment can hinder women's enrichment and fulfilment in many ways. This varies from place to place, but the research identified these key issues:

- Prejudice and obstacles to education, employment and technology
- Lack of diverse and flexible uses of public space
- Inadequate leisure, social and cultural facilities
- Poor sense of belonging, identity and freedom



Key issues

Prejudice and obstacles to education, employment and technology

Across the world, due to centuries of marginalising women, schools and workplaces have often been designed to suit the needs of an imagined ‘default male’. As a result, the ‘typical’ design of the workspace can often be a hostile environment for women. A study from 2021 indicated that women generally find default office temperatures too cold, due to metabolic differences compared with men.²²⁹ Equipment ranging from desks to smart devices are often ordered for offices with the typical measurements of an average adult man in mind. Gender-based exclusion and design bias still prevent women from thriving in professional spaces.

The same is true in education, where discrimination can reduce girls’ interest in science, technology, engineering and math (STEM) fields. In the USA, only 28% of employed scientists and engineers are women, with only 5% being women of colour.²³⁰ A study²³¹ engaging students²³² examined the high drop-out rate of women taking engineering courses in the USA and found the cause largely to be a culture of sexism in the field. Another study in the US shows that men with disabilities are nearly twice as likely to be employed as women with disabilities.²³³ Gender-based discrimination also means that in schools, services, equipment and support are often offered to boys with disabilities ahead of girls with disabilities.

Construction sites have a particular issue with gender-based discrimination, due to severe underrepresentation and a high level of harassment. Research into women civil engineers in the UK found that they felt excluded, intimidated, judged for their roles as mothers and ‘driven into the ground’ when working on site.²³⁴

“ Being female has had an impact on the education I received, the subjects I could study, the places I could go.



In the workplace there is a lack of respect from male colleagues. Sometimes there is abuse – both verbal and unwanted approaches.

London, UK (above)
Survey respondent 2022,
age 46-55; parent and caregiver

Another UK study²³⁵ found this prejudice exacerbated for LGBTQIA+ women, because an ‘old boys club’ attitude enables the normalisation of homophobic and misogynistic rhetoric.

Lastly, women in low-income countries are at the greatest risk of digital exclusion: data from 2020 shows that men are 52% more likely to be online than women.²³⁶ The reasons for this range from gendered economic inequalities to restrictive social norms, but the outcome is a drastic inequity – men are more than twice as likely as women to have access to the life-altering work, education, social commentary, and creative and communicative tools that the internet provides.

Lack of diverse and flexible uses of public space

Parks, recreation areas and other public open spaces often underserve women and teenage girls, and research indicates that, over the age of eight, boys use parks four times as much as girls.²³⁷ A main cause of this is gender stereotyping. While parks and sports zones are not usually designed to appeal to a specific gender, they often end up dominated and territorialised by men and boys. For some girls, this can be intimidating or exclusive by default, which in turn perpetuates the stereotype that there is no place for girls and women in sport. This is a cycle that results in women’s decreased sports participation.

A sudden decline in girls’ outdoor physical activity and time spent in outdoor spaces usually occurs around or just before adolescence. One study indicates that following the age of 10, activity in girls drops until, by the age of 13-15, only 8% of girls are reaching recommended activity guidelines.²³⁸ Lacking suitable facilities, women may forgo the rich benefits of outdoor recreation to avoid danger. In turn, their ability declines to participate in public life, to have flourishing relationships and to enjoy a healthy lifestyle.

Inadequate leisure, social and cultural facilities

In some cities, women and girls are less likely than men to attend and participate in cultural events, such as music, film and arts festivals, and exhibitions. In Istanbul, Turkey, a 2021 study found that women are 46% more likely than men never to attend a cultural event.²³⁹ Possible explanations include that such events are often held after dark, when women find it difficult to go out due to safety concerns or unless escorted by a male relative. The unequal division of caring responsibilities also restricts women's access to cultural spaces, as they can be unsuitable for young children and ageing communities. The study suggests that this limits women's empowerment and only reinforces traditional and patriarchal gender roles.

In numerous cultures, women are judged and harassed for purchasing and consuming alcohol,²⁴⁰ but women globally are also often excluded from nightlife spaces because they are unsafe. In clubs and bars, which are important sites of leisure and socialising, gender-based harassment and sexual violence are far too common. Over the last few years, women in the UK have reported increasing rates of harassment and spiking; so much so that it has been labelled an epidemic.²⁴¹ According to a recent survey, 1 in 9 women in the UK has had their drink spiked, and 40% of women between 18 and 24 know someone who has been spiked.²⁴² The result is a climate of fear and vigilance for women in nightlife spaces which limits their social freedom.

Liverpool, UK (right)

Survey respondent 2022,
age 18-25; bisexual;
long term illness/health
condition/disability



Poor sense of belonging, identity and freedom

Barriers to enriching spaces are strengthened by the stories our cities tell about gender. Monuments, statues, and public art function beyond serving as public decoration; they exist to exalt and commemorate groups and individuals, their work and achievements, reiterating these messages on a daily basis and contributing to urban identity. Yet, it is mostly men whose names, images and legacies are commemorated, while both the achievements of, and atrocities committed against, women and minorities are ignored.

Only 2-3% of statues represent women in almost every country in the world.²⁴³ In combination with the frequently anonymous and decorative role of statues of women, this reiterates sexist stereotypes: men are recognised for their personal achievements whilst women are portrayed as interchangeable and objectifiable.

The same goes for street names. Between Bengaluru, Chennai, London, Mumbai, New Delhi, Paris, and San Francisco, an average of only 27.5% of streets are named after women.²⁴⁴ This representative aspect of the built environment, often overlooked, minimises the history of women and all that they have fought for, preserving in our streets a time when only men were thought to make worthwhile contributions to society.

Women have a rich history of occupying public spaces to fight for their rights. Such protests continue to effect political change and to progress social equity. Yet, the right to do so is restricted in many cities. In 2022, in Iran, women took to the streets to protest, chanting the slogan 'Woman. Life. Freedom.'²⁴⁵ The widespread demonstrations began following the death in police custody of 22 year old Mahsa Amini, who was detained for allegedly breaking rules on headscarves.²⁴⁶ Women in Iran and around the world have been cutting their hair in protest of the country's strict morality laws.²⁴⁷ It could also restrict peaceful gatherings intended to provide support and healing for women. Similar scenes have been observed in India, where the gang-rape, torture and murder of an unnamed 19-year-old woman in Hathras, Uttar Pradesh in 2020, prompted a country-wide protest for more effective government responses to sexual violence.²⁴⁸

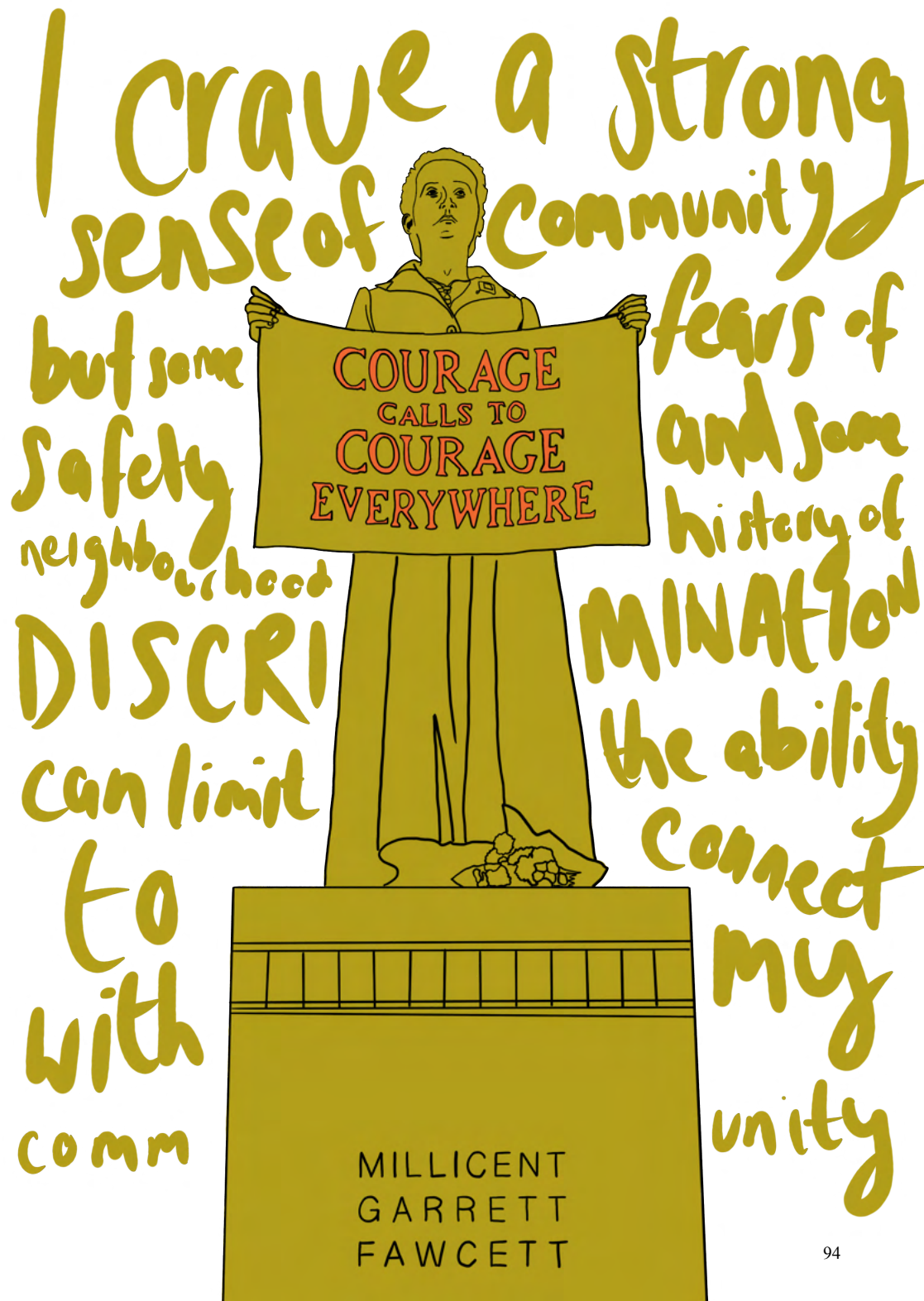
2-3%

of statues worldwide represent women²⁴⁹

15%

of international bank notes feature images of women²⁵⁰

Seattle WA, USA (right)
Survey respondent 2022,
age 36-45; parent



Strategies

There are strategies for allowing women to have rich and fulfilled lives in cities. The following pages present four possible ones. The description of each strategy includes the benefits generated, what actions support its implementation, and evidence drawn from best practice case studies.

The implementation of these strategies will also support the UN's Sustainable Development Goals (SDGs), particularly:

- SDG 4: 'Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all';²⁵¹ and
- SDG 8: 'Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all'.²⁵²



Provide accessible and inclusive workplaces and schools



Design for diverse and flexible use of public spaces



Provide safe and inclusive leisure and cultural spaces



Use the built environment to uplift women and recognise their history

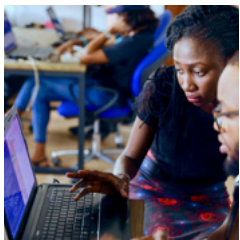




Strategy 1
Provide accessible and inclusive workplaces and schools



Design modular, adaptable office spaces
Modular spaces with the capacity to be rearranged depending on purpose extend comfort to a more diverse user base. SPACE10's 2019 Denmark office renovation involved dividing the office into semi-open cubes, acting as on-demand workspaces, meeting rooms, and co-working areas. Translucent panels were used to create dividers, which could be easily moved to create adaptable workspaces, combining privacy with collaboration.²⁵³ Atypical workspaces designed for diverse use will help cater to women's needs, help facilitate workplace success and tackle misogynistic work cultures. Such models can also help with accessibility and inclusion by meeting a range of preferences and needs.



Provide flexible, multi-use and accessible co-working spaces
The number of female entrepreneurs in Nigeria has risen to over 23 million²⁵⁴ – more than any other country globally. Increased access to co-working spaces has been a strong contributing factor.²⁵⁵ Co-working spaces, such as Venia and the iLx Centre in Lagos, enable women to work in more convenient locations and increase their flexibility. They also offer bases to freelance or from which to start businesses. This does not erase the unequal burden of care on women, but this kind of flexibility helps women get businesses off the ground and provides alternatives to lengthy commutes.

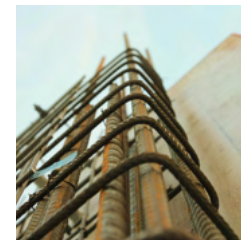


Benefits

Workplaces and educational facilities that consider women's specific needs help tackle gender-based stereotypes. They enable women to have equal access to jobs and education, which in turn provides cities with a larger, better-skilled workforce and boosts productivity. There is evidence that educated and trained women are more likely to benefit their communities at a higher level than men.

Create toolkits to challenge industry-specific cultures of sexism

In the US, ProTradeCraft's toolkit on gender-inclusion aims to equip senior workers in the construction sector with the ability to discuss codes of conduct with their teams on site.²⁵⁶ The kit explains the use of inclusive language and offers prompts for challenging discriminatory behaviour at work. Sweden-based company Skanska introduced a 'yellow card system' to flag inappropriate conduct from construction employees. This provides opportunities to learn from mistakes and modify behaviour, which is paramount to culture change.



Design learning spaces that meet the needs of women and children with disabilities

Registered charity Doostan builds schools for underprivileged children in remote parts of South Africa and the Middle East.²⁵⁷ Their school in Bushehr, Iran, is for blind and partially-sighted children, and its design incorporates textured tiles, wayfinding and specially designed classroom equipment to maximise learning opportunities for children with disabilities.²⁵⁸ Girls with disabilities, especially in developing countries, are more likely to be kept home from school due to harassment or the prioritisation of boys with disabilities.²⁵⁹ Primary caretakers, predominantly women, also benefit from increased independence for both caregiver and child.



Strategy 2
Design for diverse and flexible
use of public spaces

Benefits

Cities that provide diverse and flexible spaces for play, leisure and learning help women and girls lead more enriched lives. Such inclusive spaces also benefit health and wellbeing and, by opening up more opportunities for women, increase productivity and economic growth.



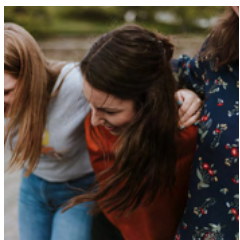
**Design parks in response to women's
comfort and safety needs**

Tribute Garden in New York, USA, is a green space designed to raise awareness of, and pay respect to, victims of domestic abuse. It uses memorial artworks to provide moments of teaching and reflection.²⁶⁰ Green spaces offer respite, particularly to those for whom domestic spaces have become dangerous. Parks are also important to displaced women seeking asylum. The familiarity and health benefits of green spaces can provide a way of reconnecting with new surroundings in a potentially hostile new country or home. The correlation between green space availability and social cohesion is testament to this.²⁶¹



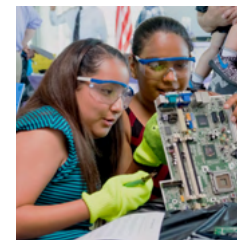
Provide mixed-use, adaptable community gathering spaces

Designed by Squire & Partners, a community centre built as part of the renovation of a Grade II listed windmill in London, UK, demonstrates how purpose-built community spaces can facilitate classes and social gatherings across identities and generations.²⁶³ The centre contains flexible rooms which can open into a larger space and provide facilities for comfort and convenience. As the rooms are designed for adaptation to different age groups and activities, this encourages diverse uses and helps all members of the community feel welcome.



Design spaces for teenage girls

Swing Time, an illuminated swing installation by Höweler + Yoon Architecture in Boston, USA, was not specifically designed for teenage girls, but that demographic's joyful use of the swings reveals teenage girls lack playful, comfortable, aesthetically appealing spaces for sitting and socialising.²⁶² The use of light-up, adult-sized swings conveyed several key messages: that the space was not for small children, that sitting and spending time there was welcomed, and a sense of safety and play created by the soft colourful light of the structure. Girls felt safe spending time there, knowing they would not be asked to move.



**Provide studio and garage spaces for
women and girls in STEM**

DIY Girls in San Francisco, USA, responds to the exclusion of women and girls in STEM (Science, Technology, Engineering, Mathematics) fields by running courses in technology, engineering, coding and 3D design.²⁶⁴ It also provides studio space to work in, aimed mainly at young Latina girls in underserved areas. Girls Garage in Berkeley, USA plays a similar role:²⁶⁵ it offers garage space, equipment and teaching to young girls for skills such as carpentry, MIG-welding, sculpting, and jump-starting cars. Such spaces in our cities help break sexist stereotypes.

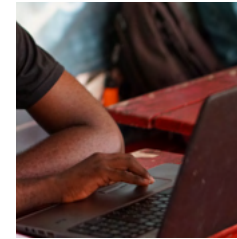


Strategy 3
Provide safe and inclusive
leisure and cultural spaces



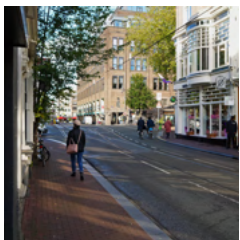
Incorporate spaces for cultural practices into designs

In Newcastle, UK, Atkinson Road Primary Academy opened the first multi-faith prayer room in the region, following concerns from a Muslim pupil who needed to pray, and wider consultation with its diverse student population, who backed the need for an inclusive prayer space.²⁶⁶ Leytonstone School in London, UK, has introduced a similar concept for their students, but additionally offers a prayer club for Muslim students.²⁶⁷ Spaces and policies for inclusion improve safety and autonomy, and prayer rooms in particular enable individuals to carry out their religious practice comfortably.



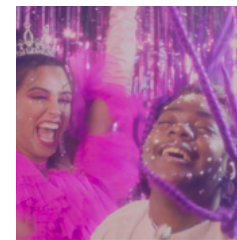
**Establish community libraries with
Wi-Fi and printing access**

Based in Mutare South, Zimbabwe, the Manzununu Community Library demonstrates how physical community spaces can be the first step in getting people online.²⁷⁰ Offering computer equipment and internet access, the library connects locals to online education and training. Across the world, women are more likely to be prevented from accessing education and work against their will,²⁷¹ and are less likely to have internet access than men.²⁷² Facilities such as the internet and printers give women opportunities to print job applications or apply for childcare benefits. These are key aspects for women's economic independence.



Design cities to maximise proximity to opportunity

15 Minute Cities – neighbourhoods designed so that key necessities of one's daily routine are all reachable within 15 minutes walking or cycling from residents' homes – are one way of improving women's experience of mobility.²⁶⁸ This approach means amenities and transport hubs are closer and easier to get to, facilitating the local and care-based trips more often made by women,²⁶⁹ but also access to further educational and work opportunities. Alternative urban design paradigms such as this also demonstrate how designing around the needs of women and girls raises inclusivity and quality of infrastructure for all.



**Establish a Code of Conduct for nightlife
spaces that works to protect women**

London-based club and performance venue Pxsy Palace has a code of conduct centred around nightlife safety and the inclusion of low-income women, queer, intersex, non-binary and trans individuals and people of colour.²⁷³ Their policy details wheelchair accessibility, provision of a quiet respite space, a taxi fund for vulnerable guests, a buddy system for those arriving alone, and guidance on consent. As a result, women and minority genders feel safer attending the venue as the establishment as a whole is committed to creating inclusive spaces. This prevents harm and sexual harassment.



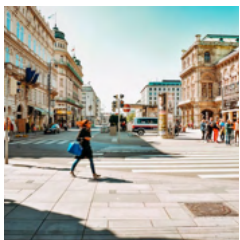
Strategy 4

Use the built environment to uplift and recognise the history of women



Design and build monuments and statues depicting women

The tale of historical achievement told by our cities' statues is heavily biased in favour of powerful white men. In New York, USA, Brooklyn-based non-profit campaign group Monumental Women seeks to address the extreme gender imbalance in public statues and monuments.²⁷⁴ The group successfully campaigned for Central Park's first statue of a woman – who was not a fictional character – resulting in the installation of a statue of women's rights pioneers Sojourner Truth, Susan B. Anthony, and Elizabeth Cady Stanton in 2020.²⁷⁵ Monumental Women also challenge municipalities to include tributes in their public spaces to diverse women.

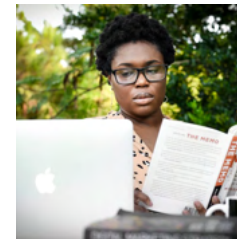


Name streets and places after women

In addition to making cities safer and more accessible, the approach of gender-sensitive design can feed our sense of belonging and identity. The neighbourhood of Aspern, in Austria's capital Vienna, is committed to gender mainstreaming in urban design which goes beyond safety and inclusive infrastructure, shaping neighbourhood values and identity as well. All the streets and public open spaces in Aspern are named for women²⁷⁶ – for instance, Hannah Arendt Platz, Janis Joplin Promenade, Ada Lovelace Strasse, Madame d'Ora Park. These small design decisions shape urban narratives, using the authority of the built environment to recognise and raise awareness of female achievement.

Benefits

The built environment tells stories through its monuments, statues and street names. Cities can harness the power of these narratives to celebrate women's history and achievements. Uplifting women's identity and sense of pride in this way can help women feel like they belong, which enriches their lives and makes them more involved in their communities.



Empower and support feminist organisations through inclusive gathering spaces

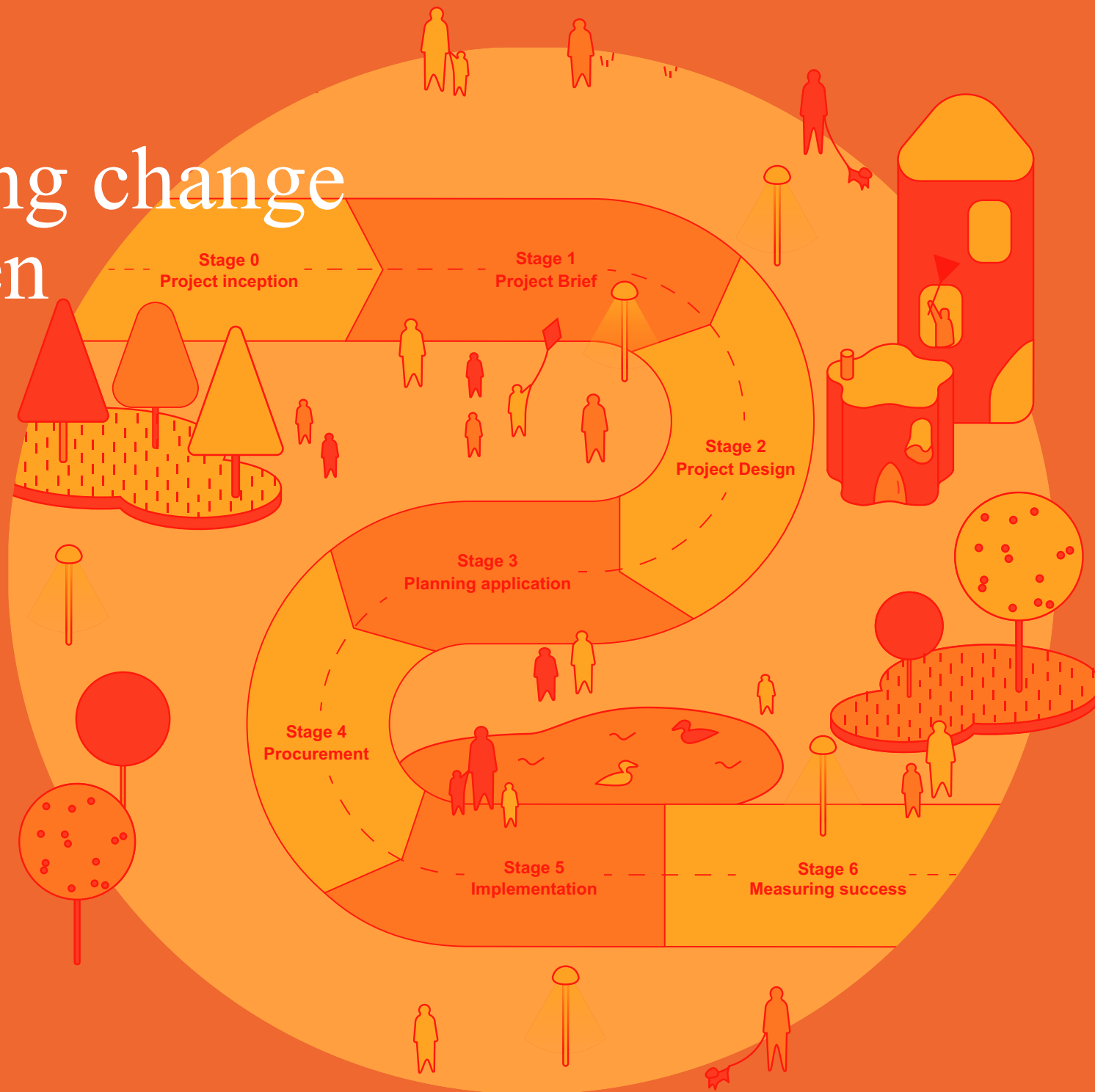
Space to organise and sustain feminist groups and networks are needed for intersectional feminism to thrive. Writer Lola Olufemi, in 2020, described how “[Black women] created spaces of reflection as well as planning, where women's voices were the central contributors to political discussion on the conditions needed for liberation.”²⁷⁷ This reiterates the role of community spaces in enabling women to express and strategise free from oppression. Many feminist and politically-oriented libraries offer these spaces for free, such as the Free Black Women's Library²⁷⁸ Brooklyn, USA, and Feminist Library²⁷⁹ and MayDay Rooms²⁸⁰ in London, UK.



Use political protest case studies to inform spatial design and use of space

Sisters Uncut occupied the visitor's centre of women-only Holloway Prison, London, UK, that had closed down the year before.²⁸¹ The group drew attention to the insufficient support and shelter space offered to survivors of domestic violence, demonstrating alternative use of the empty prison space by hosting workshops on women's wellbeing, self-defence, and legal rights. They also indicated how spaces centred around rehabilitation and support can help our societies more than incarceration.²⁸² Learning from such protests can help built environment practitioners better meet the needs of the communities they serve.

Making change happen



Putting into practice

Cities are complex systems of interconnected parts and layers. Each of these – be they spatial, socio-cultural or governmental – impact women’s conditions and their urban experiences.

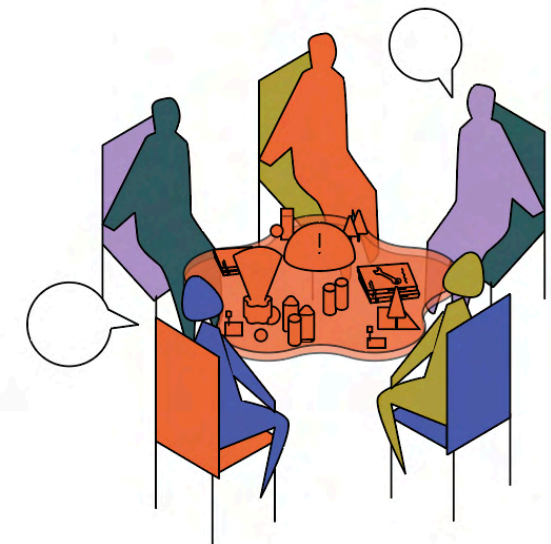
Only an integrated, gender-responsive, and participatory approach to city-making can hope to tackle and address the breadth of challenges women face in cities across the world, and identify solutions and opportunities for addressing them. This requires commitment and collaboration from public and private stakeholders, working together to remove discipline siloes and to jointly develop well-crafted and context-relevant physical interventions, as well as governance, social and behavioural change programmes and activities. Siloed thinking and the failure to adopt an integrated approach cannot deliver equity; what is more, it risks exacerbating existing inequities.

At the same time, city stakeholders need to consider the full spectrum of challenges, needs and aspirations of women in cities, in every step of their design and policy process. This goes beyond the consideration of purely functional needs of women, such as access to health and safety, but requires an intersectional and holistic approach.

Intersectionality is defined as “a lens, a prism, for seeing the way in which various forms of inequality often operate together and exacerbate each other”²⁸¹. Consequently, a holistic approach considers experiences of women of different age groups, ethnicities, religions, gender identities and expressions, socio-economic and family status, sexual orientations and those with disabilities. Without considering intersectionality, we cannot sufficiently address the subordination of marginalised groups.

It is also impossible to design successful cities for women without involving them directly within the design process. Relying on data alone to inform decision-making can lead to gender-biased choices. Women bring a different perspective to urban planning. They have been shown to plan and design with diversity in mind and are more likely to create places that are inclusive of the needs of the entire population. It is also the duty of men – especially those in influential roles – to be actively involved in discussions regarding women’s needs and to fully support their participation in city decisions and place-making.

This process, whereby someone in a privileged position advocates for the equality and empowerment of underrepresented groups, is often referred to as allyship.²⁸³ Male allies, in this instance, not only bring women to the table, but can also ensure that they are listened to, acknowledged, respected, and recognised for their contributions.²⁸⁴ Allyship often starts with education, and while most men notionally support gender equity, they struggle to recognise gender discrimination in practice.²⁸⁵



Foundations for a gender-responsive urban project

This section presents a list of practical steps that city authorities, urban professionals, developers and investors and community groups can undertake to establish some foundational principles to create the optimum governance and operational mechanisms to enable the effective delivery of gender-responsive urban projects or interventions. This approach will ensure the whole community has access to, and benefit from, more inclusive, equal and sustainable urban spaces.

To navigate this section, find your stakeholder icon against a foundation to see what actions you can be taking to create the right environment for gender-responsive projects to be successfully delivered.

Key stakeholders



City leaders and policy makers



Built environment professionals



Developers and investors



Community groups

Implementation timescales

Short term

Medium term

Long term



Step 1

Conduct a women's local needs analysis

Conduct a women's local needs analysis within cities to understand women's existing challenges and opportunities. This will establish a baseline to identify priority actions, and against which change and success can be measured. The analysis should involve comprehensive engagement with local, intersectional women to understand user stories, and be complemented by an analysis of socio-economic and spatial data and a policy review, being mindful of any data biases and gaps in information.

Step 2

Produce a gender-responsive city action plan

Create a gender-responsive city action plan, setting out how the findings from the local needs analysis will be addressed. This action plan should be fully embedded and integrated with other policy documents and strategies, for example local transport plans, economic growth strategies and local planning documents. It should also identify any policies or laws which need to be introduced to promote gender equality in the built environment.

Step 3

Create a gender-responsive city pledge

Create a gender-responsive city pledge to set out the actions organisations within the city can take to improve cities for women. These actions should respond to the local needs analysis and city action plan and diverse organisations should select the actions they are most able to influence or adopt. Participating organisations should be named on a city-wide register and publicly promoted, highlighting their commitment to improving the built environment for women. Public commitments make implementation more likely.



Step 4
Establish a task force for gender-responsive planning

Form a city-wide task force for gender-responsive planning with representatives from different stakeholder groups, tasked with improving gender equity in the built environment. The task force should be responsible for the delivery of the action plan and pledge. This collaborative working is required to provide holistic and comprehensive long-term improvements, rather than piecemeal interventions which displace challenges.



Step 7
Adopt gender-responsive project financing

Adopt gender-responsive project financing to ensure that project funds and resources are allocated equitably across people of all genders. This step is important to ensure that any project activities that deliver outputs and outcomes for women are adequately funded, improving their chances of being achieved.



Step 5
Appoint a champion for gender-responsive planning

Appoint a champion for gender-responsive planning within their organisations. This role is to advocate for gender equity in design and ensure the involvement of women within planning and design. The champion should also work to improve understanding amongst all people of the challenges that women face and in doing so promote the importance of male allyship.



Step 8
Look beyond the development boundary

Look beyond the development boundary to ensure any wider impacts arising from the development upon women will be identified and can be addressed. Equally any positive measures introduced by neighbouring areas or developments could be expanded upon within the development boundary to generate positive cumulative impacts.



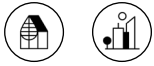
Step 6
Adopt gender-responsive procurement mechanisms

Adopt and promote gender-responsive procurement mechanisms to articulate and evaluate tenders. They should use a balanced scorecard approach and criteria linked to the needs analysis within an area. Criteria could include: the equal opportunities policies adopted by companies, women-owned businesses, the percentage of intersectional women in the company at all levels and across all roles and/or any training provided on female allyship. This requirement should extend throughout the supply chain.



Step 9
Develop gender-responsive guidance for construction sites

Develop gender-responsive guidance for construction sites which identifies mitigation measures for the temporary impacts arising during construction and for the inclusion and comfort of women on sites. For example, the provision of personal protective equipment that fits women's bodies and on-site toilet facilities for women, the impact of hoardings on sight lines/passive surveillance, or on how the increased number of men in an area (due to the construction industry being male dominated) impacts perceptions of safety.



Step 10
Educate and up-skill professionals
on gender-responsive planning

Organisations should develop inclusive approaches to recruiting, retaining and promoting women from diverse backgrounds. They should encourage training to educate and up-skill staff around the need and methods to design for women.²⁸⁶



Step 11
Advocate for gender-responsive
planning policy reform

Advocate and lobby governments for gender reforms in planning and design policies to ensure there is a statutory requirement to consider the needs of women in the built environment. Additionally, design standards and best practice guidance should be developed to support these reforms. Community groups also have a role to play to support such advocacy and lobby initiatives, through communications and awareness raising campaigns.



Step 12
Ensure diverse voices and experiences
are heard when shaping projects

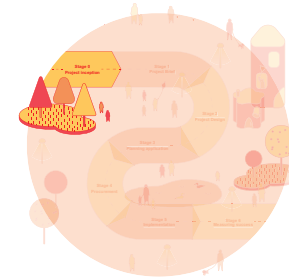
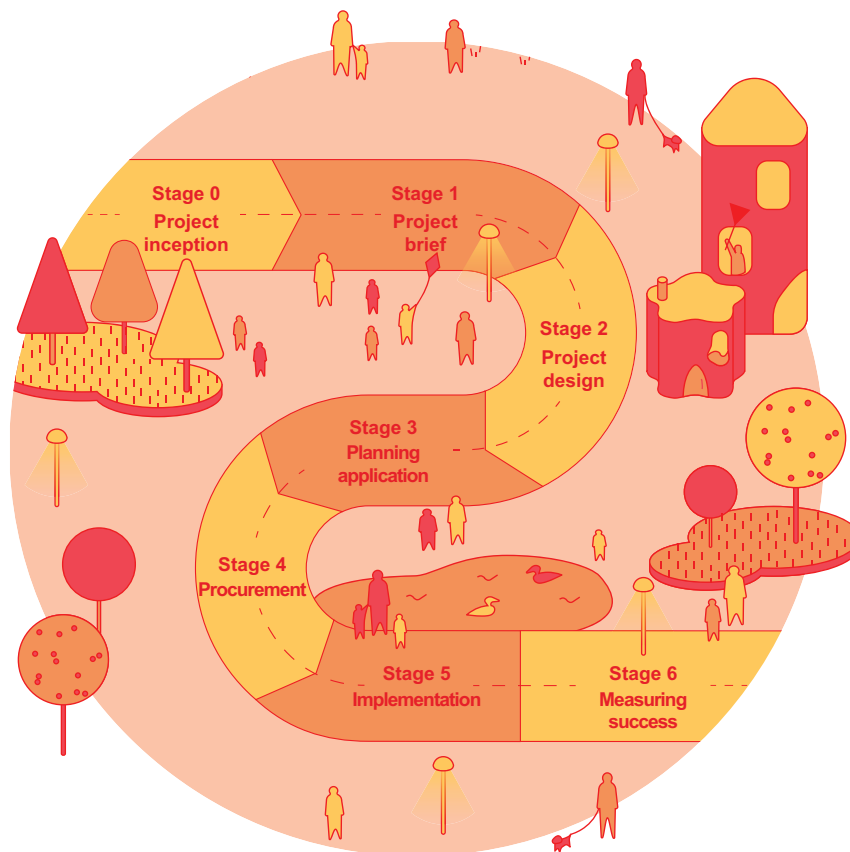
Teams should approach a range of stakeholders and hear from those 'seldom heard'. Where appropriate, engagement with certain groups of women should be carried out through an organisation, charity or community group that regularly works with or supports that group. Engagement teams should also be as closely representative of the groups they are consulting as possible. This helps create a comfortable and inclusive environment which facilitates more open and valuable engagement.



Photo by ThisisEngineering RAEng on Unsplash

Gender-responsive project roadmap

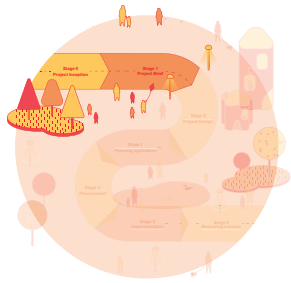
A gender-responsive approach to city planning and design should be implemented across all stages of built environment projects. These could be new policies, strategies or physical interventions – both spatial and structural. The project roadmap should be used by urban professionals, city authorities, developers, investors and community groups to embed gender-responsiveness in their work.



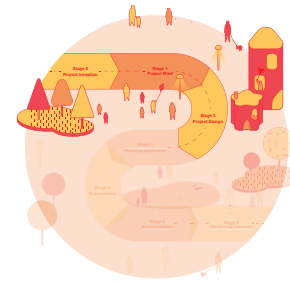
Stage 0
Project inception

- Establish a diverse team that understands the intersectional challenges faced by women. The demographics of the local area should be mirrored in the team. Where there are gaps in representation, these should be noted and addressed through stakeholder engagement and data.
- Introduce the concept of social value and of equality, diversity and inclusion commitments for the project. Ensure the whole team is aware of them and that they are included within the project programme and outcomes. Each delivery partner should take shared responsibility for fulfilling these commitments. The commitments could be delivered through the project itself but also through community outreach.
- Ensure that the project team is multi-disciplinary. Thinking wider than the traditional disciplines involved can provide a diversity of perspectives and thus instil better design outcomes. Inclusive design specialists, diversity and inclusion consultants, sociologists, and psychologists are just a few examples of alternative disciplines that should be involved to achieve more inclusive outcomes.
- Establish a commitment to gender equity amongst the project team. This should include a clear vision and objectives for delivering gender equity through the project as well as to respectful working practices and mutual respect. Empathy is key so that biases can be positively challenged.
- Ensure that ‘Inclusion Moments’ are a standing agenda item for every team meeting. This creates a culture of caring and respect. It could include highlighting how recent project work factored in the needs of women, sharing industry best practice, or bitesize team training on inclusion topics such as the use of pronouns or menopause support.

Making change happen



Stage 1
Project brief



Stage 2
Project design

- Review, or conduct, a local needs analysis and identify gender-responsive project outcomes which address the local needs of women. This step should involve stakeholder engagement to both create and confirm the outcomes. These outcomes should be included within the project's delivery plan, ensuring they are a key component of the project and help shape the social value commitments. The local needs analysis should be regularly revised as the socio-economic context and experiences of women may change as a result of the project and societal changes as a whole.
- Map the user stories for women. This helps to communicate the project requirements from the perspective of users, specifically women. Using this method helps ensure that the needs of women are considered throughout the project and that the project outcomes meet their requirements.
- Produce a gender-responsive engagement plan which sets out how engagement with women will be carried out at all stages of the project. This ensures that they have a voice from the start of the design process, allowing them to influence and shape the project brief and outcomes. This should include stakeholder mapping to identify key actors, and any political or city leaders whose support is required for successful project delivery.
- Use a mix of engagement methods to promote full, active participation, including online and in-person events, on different days and times, and at different locations. Engagement materials should be available in various languages or formats. Braille, translators and sign-language interpreters should be available. Event venues should be near public transport and be fully accessible through step-free access, accessible car parking, accessible toilets, baby changing facilities and hearing loops. Child play areas may enable parents to attend.
- Develop a multi-criteria assessment tool for options appraisal. This should include both qualitative and quantitative assessment criteria, together with the original project objectives from the local needs analysis. A workshop to review project options should be held with women (if appropriate for the scale of the project). The needs of women should be continually reviewed. There should be frequent checks that the project outcomes have been embedded in the design process and that they would be achievable upon implementation.
- Stakeholder engagement should continue during this stage at regular intervals, and if significant changes are made to the scope within the project brief. This is an important activity to ensure women have an input into the project development process, but also to ensure any assumptions made by the project team are checked and challenged.
- Multi-disciplinary design team workshops should be arranged to identify and address any competing impacts. For example, the need to maintain dark corridors for wildlife can create darker routes where women do not feel as safe thus requiring alternative, better lit routes to be provided.
- Manage team personnel changes and milestone transitions. Ensuring any new members of the team, or handovers to new teams/companies are aware of the vision and objectives of designing for women. This will ensure that at the end of the project the vision has been met.

Making change happen



Stage 3 Planning application *(If required)*



Stage 4 Procurement

- Upon submission of a planning application, the local planning authority should assess and ensure the needs of women have been considered by developers, and are being met through the design. The evaluation should be based on a local needs analysis of women.
- Local planning authorities should introduce the requirement for developers to provide a ‘gender-responsive design plan’ within their planning submission, detailing how the local needs of women are being met through the design, how women have been engaged, and how their views helped inform and shape the design. Developers and built environment professionals should produce the ‘gender responsive design plan’ whilst preparing their planning application documents.
- Upon granting planning permissions, conditions should be included by local planning authorities to require developers to implement, and monitor, key aspects of the scheme which concern designing for women.
- A proportion of any developer contributions should go towards achieving inclusive outcomes. Streets and cycleways could be named after women or statues representing women could be built – to name but a couple of examples. Steps should be taken to ensure there is no gender bias in how places are named, or in the design of infrastructure such as schools.
- Gender responsive procurement mechanisms should be adopted by organisations, and complied with by suppliers. The procurement process should support in the delivery of equitable outcomes for women at every stage of the process.
- The supply chain should be required to commit to supporting the needs of women as part of their contractual requirements and aligned to the project’s objectives and outcomes. Key performance indicators for the supply chain should link to their contractual requirements and should be monitored and reported upon during the project lifecycle. This should be aligned with the gender-responsive design plan.
- Social value commitments which enhance the visibility of women should be required. Many built environment professions are male-dominated, and efforts should be made to inspire the next generation of women to enter these professions. For example, female construction workers could conduct school visits, supported by male colleagues who can discuss the importance of allyship.

Making change happen



Stage 5 Implementation

- Risk registers should include standing risks and mitigation around the experiences of women. For policy or strategy projects, risks could include how service changes, project delays, project funding cuts and so on may impact women.
- Design changes made during delivery should be re-tested with women. It is particularly important when value engineering occurs that project changes due to cost reductions do not negatively impact project objectives related to women.







Stage 6 Measuring success

- Once delivered – and while in operation – the project should be monitored to identify whether the anticipated outcomes are being achieved. This should include an impact assessment and the engagement with user groups to understand their experiences of the project. Project teams should also revisit the user stories and identify if they have now changed.
- Feedback should be shared with the local planning authority to inform their knowledge and understanding of the needs of women and girls within their local area, as well as the success of interventions. This should be used to update the local needs analysis.
- A ‘lessons learnt’ log should be kept and used on future projects ensuring that knowledge and understanding of best practice is shared and carried forward.

Measuring success

Using quantifiable indicators can measure the success of gender-responsive interventions. Monitoring the impact provides insights into the experiences of user groups. Gathering feedback identifies changes that may be needed to allow for continual improvement. Areas and demographics also change over time, and so too do the needs of those communities. Ongoing monitoring captures whether interventions are still effective over time.

The table to the right suggests possible indicators that could be used or adapted in order to evaluate the impact of gender-responsive design.

Themes	Key performance indicators
 <p data-bbox="847 586 984 656">Safety and security</p>	<ul data-bbox="1292 469 2119 639" style="list-style-type: none"> - Number of women using public transport - Provision, and use of, safe reporting systems, counselling, and support services for gender-based violence - Crime statistics, e.g. levels of gender-based violence & harassment - Perceptions of safety - Levels of lighting provision - Existence of local policy and/or provision against sexual harassment in public open spaces - Provision and uptake of mandatory education and training programmes
 <p data-bbox="847 842 984 912">Justice and equity</p>	<ul data-bbox="1292 729 1907 878" style="list-style-type: none"> - Existence of gender-responsive policies and laws - Percentage of women's housing and land ownership - Funding for projects with women's outcomes - Number of women in built environment professions across all roles - Use of data sources which include statistics specific to women - Number of women participating in civic engagement - Use of gender budgeting
 <p data-bbox="847 1118 984 1188">Health and wellbeing</p>	<ul data-bbox="1292 980 2119 1174" style="list-style-type: none"> - Presence of women in public realm (day and night) - Dwell time of women in public realm - Prevalence of physical and mental health conditions in women - Number of public toilets - Number of public buildings providing gender-inclusive menstruation products and disposal areas in toilet facilities - Ease of access to water and sanitation - Number of breast and chest feeding spaces - Number of developments recognising inclusive housing models
 <p data-bbox="826 1395 1007 1464">Enrichment and fulfilment</p>	<ul data-bbox="1292 1256 2119 1450" style="list-style-type: none"> - Percentage of women employed who are in senior positions - Extent to which information on and sensitivity to gender equity, gender identity and expression, sexual orientation, and culture and religion is mainstreamed across schools and workplaces - Presence of women at cultural facilities (during both the day and night) - Streets and cycleways named after women - Statues depicting women - Sentiment mapping of women's fulfilment - Economic contribution of women to leisure services

Leading the way



Leading the way

We are at a pivotal moment in the evolution of our cities. Together, we can eradicate traditional urban practices in favour of designing cities that work for women and girls. We cannot ignore their needs any longer.

Designing cities that work for women translates to better cities for all, with strong multiplier socio-economic and environmental effects across households, families, and local communities. The strategies explored in this report can lead to a healthier, safer, more resilient, and more inclusive built environment that nurtures social cohesion and enhances the livelihoods of communities. Gender-inclusive urban planning and design is also critical in addressing current, multifaceted challenges such as rapid urbanisation, pandemics, multidimensional inequalities, and climate change.

We hope this report will inspire city authorities, urban practitioners, developers, police, education bodies and others to join the movement towards the creation of safe and just cities.

The starting point, for many, will be to prepare an understanding of area-specific challenges, and to recognise women's needs as a central consideration when creating their vision and designs. More to the point, we have identified 16 thematic strategies, each supported by four actions to support their implementation. Each case study emphasises that many of these recommendations and actions are not brand-new; they have been successfully implemented around the world, and they are applicable to alternate locations.

The practical gender-responsive project roadmap process can help delivering these strategies – if embedded in professionals' day-to-day work. Whilst the individual pursuit of any of our recommendations or actions would be a positive step forward, we must acknowledge that multi-stakeholder collaboration and systemic behaviour change will have the greatest positive impact.

We are asking you to pledge your commitment to implementing the most appropriate actions across your work, and in your city. Your pledge will ensure that this publication goes beyond just words on a page; it will enable positive change for women and girls now, and for future generations. We aim to monitor and review the impact of our work after five years to get an idea of its success and the work that still needs to be done.

**This is only the start of
what we hope to achieve.**

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Dedicated to sustainable development, Arup is a global firm of designers, planners, researchers, and technical experts working across every aspect of the built environment industry. Founded to be humane and excellent, Arup collaborate with their clients and partners, using innovation, technology and rigour to shape a better world.

The University of Liverpool, being associated with nine Nobel Laureates, is recognised for its high-quality research and breadth of global research collaborations, many of which have worked to address the grand challenges faced by humankind today.²⁸⁷

UNDP is the leading United Nations organisation fighting to end the injustice of poverty, inequality, and climate change. With a broad network of experts and partners in 170 countries, UNDP helps nations build integrated, lasting solutions for people and the planet.²⁸⁸



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References

1. Panella, A. (2016). 'Gender roles: hindering the potential of women in Africa'. Available at: < Gender Roles: Hindering the Potential of Women in Africa - The Borgen Project>. [Accessed: 31 August 2022].
2. UN Women. (2021). 'Prevalence and reporting of sexual harassment in UK public spaces'. Available at: < https://www.unwomen.org/site/wp-content/uploads/2021/03/APPG-UN-Women-Sexual-Harassment-Report_Updated.pdf> [Accessed 23 August 2022].
3. The World Bank Group. (2020). 'Labour Force, Female (% of total labour force) – India. Washington DC: The World Bank Group.
4. OECD. (2019). 'A long way before turning promises into progress: discriminatory laws and social norms still hamper gender equality'. Available at: < https://www.oecd.org/gender/data/a-long-way-before-turning-promises-into-progress-discriminatory-laws-and-social-norms-still-hamper-gender-equality.htm>. [Accessed 23 August 2022].
5. Young Women's Movement. (2021). 'Young Women Lead'. Available at: < YWL 2021 (ywscotland.org)>. [Accessed: 31 August 2022].
6. Grant Thornton. (2020). 'Women in Business 2020'. Available at: < https://www.granthornton.global/globalassets/1.-member-firms/global/insights/women-in-business/2020/women-in-business-2020_report.pdf > [Accessed 23 August 2022].
7. Rainmaking. (2020). '55% of the world's population currently lives in urban areas'. Available at: <55% of the world's population currently lives in urban areas - Rainmaking>. [Accessed 21 September 2022].
8. Ritchie, H and Roser, M. (2019). 'Gender Ratio'. Available at: < Gender Ratio - Our World in Data>. [Accessed 22 September 2022].
9. UN-HABITAT. (2021). 'Her City'. Available at: <https://unhabitat.org/sites/default/files/2021/03/02032021_her_city_publication_low.pdf>. [Accessed 23 August 2022]
10. The World Bank Group. (2020). 'Labour Force, Female (% of total labour force) – India. Washington DC: The World Bank Group.
11. UN Women. (2021). 'Prevalence and reporting of sexual harassment in UK public spaces'. Available at: <https://www.unwomen.org/site/wp-content/uploads/2021/03/APPG-UN-Women-Sexual-Harassment-Report_Updated.pdf> [Accessed 23 August 2022]
12. TII and Arup. (2020). 'Travelling in a Woman's Shoes'. Dublin: TII.
13. James et al. (2016). 'The Report of the 2015 U.S. Transgender Survey'. Washington DC: National Centre for Transgender Equality.
14. European Commission. (2021). 'Equal Pay?' Available at: <https://ec.europa.eu/info/sites/default/files/aid_development_cooperation_fundamental_rights_equalpayday_factsheet.pdf > [Accessed 23 August 2022]
15. Grant Thornton. (2020). 'Women in Business 2020'. Available at: <https://www.granthornton.global/globalassets/1.-member-firms/global/insights/women-in-business/2020/women-in-business-2020_report.pdf > [Accessed 23 August 2022]
16. Engender. (n.d.) 'Gender Matters Roadmap: Towards Women's Equality in Scotland'. Available at: <https://gendermatters.engender.org.uk/content/public-space/> [Accessed 23 August 2022]
17. Arup. (2019). 'Designing Cities for Women Phase 1.5'. San Francisco, CA: Arup.
18. The World Bank. (2020). 'Handbook for Gender-Inclusive Urban Planning and Design'. Available at: <Handbook for Gender-Inclusive Urban Planning and Design (worldbank.org)> [Accessed 23 August 2022]
19. Roy, S and Bailey, A. (2021). 'Safe in the City? Negotiating safety, public space and the male gaze in Kolkata, India.' *Cities*, 117, pp. 1-12.
20. Hall, T. (2022). 'Glasgow's parks dubbed 'eerie and unsafe' for women in damning report.' Available at: <Glasgow's parks dubbed 'eerie and unsafe' for women in damning report - Scottish Daily Express> [Accessed 23 August 2022]
21. Australian Associated Press. (2018). 'Man charged with rape and murder of Melbourne comedian Eurydice Dixon'. Available at: <Man charged with rape and murder of Melbourne comedian Eurydice Dixon | Australia news | The Guardian> [Accessed 23 August 2022]
22. Arup. (n.d.) Lighting the way for women and girls: a new narrative for lighting design in cities. Available at: <https://www.arup.com/projects/perceptions-of-night-time-safety-women-and-girls> [Accessed 23 August 2022].
23. Repard, P. (2014) 'North Park assaults prompt more street lights'. The San Diego Union-Tribune, 5th September.; Walter, S. (2011) 'Crime Rises in Oakland, and Dim Lights Get Blame'. The New York Times, 23rd September. [Accessed 23 August 2022].
24. Deed, S. (2020) 'Public Lighting, Gender and Safety in Emergencies'. Oxfam Research. Available at: Public Lighting, Gender and Safety in Emergencies (openrepository.com) [Accessed 23 August 2022].
25. Briggs, H. (2021) 'Light pollution from street lamps linked to insect loss'. BBC News, 26th August. Available at: <Light pollution from street lamps linked to insect loss - BBC News> [Accessed 23 August 2022]
26. Covenant of Mayors in Sub-Saharan Africa (2021) 'Gender-Sensitive Public Lighting: Why and How?' Agende Française De Développement. Available at: <CoM SSA> [Accessed 23 August 2022]
27. Martínez, E., 2015. American cities are designed for cars—which makes life worse for everyone. [Blog] Abundant Hope, Available at: <http://abundanthope.net/pages/Environment_Science_69/American-cities-are-designed-for-cars-which-makes-life-worse-for-everyone.shtml> [Accessed 23 August 2022].
28. Schertz, K., Saxon, J., Cardenas-Iniguez, C., Bettencourt, L., Ding, Y., Hoffmann, H. and Berman, M., (2021). 'Neighborhood street activity and greenspace usage uniquely contribute to predicting crime'. *npj Urban Sustainability*, 1(1).
29. Lin, J., Wang, Q. and Huang, B., (2021). 'Street trees and crime: What characteristics of trees and streetscapes matter'. *Urban Forestry and Urban Greening*, 65, p.127366.
30. Ouali, L. A. B. et al. (2020). Gender differences in the perception of safety in public transport. *Statistics in Society Series A*, 183(3), 737-769.
31. Allen, H. (2016). 'Why Women Feel Unsafe on Public Transport'. Available at: <Why Women Feel Unsafe on Public Transport (adb.org)> [Accessed 23 August 2022].
32. International Transport Forum (2018) *Women's Safety and Security: A Public Transport Priority*. OECD Publishing, Paris.
33. Kacharo, D. K. et al. (2020) 'Safety and security of women and girls in public transport'. *Urban, Planning and Transport Research* 10 (1).
34. Kaufman, S. (2019). 'The pink tax on transportation: the challenges women face in mobility'. Available at: <The Pink Tax on Transportation: The Challenges Women Face in Mobility - NewCities> [Accessed 23 August 2022].
35. SUPT. (2018). 'SUTP-Webinar: Gender and Urban Transport.' Available at: <SUTP-Webinar: Gender and Urban Transport (18.01.2018) - YouTube> [Accessed 23 August 2022]
36. International Labour Organization. (2017). 'World Employment Social Outlook, Trends for Women.' Geneva: International Labour Office.
37. Aloul, S. et al. (2018). 'Gender in Public Transportation: A Perspective of Women Users of Public Transportation.' SADAQA & Friedrich Ebert Stiftung.
38. Banik, K. (2013). 'Girls cannot learn when facing violence in school'. Available at: <Girls Cannot Learn When Facing Violence in School – Global Partnership For Education> [Accessed 23 August 2022]

References

39. Hobbie, E. S. and Grimm, N. B. (2020). 'Nature-based approaches to managing climate change impacts in cities'. Available at: <Nature-based approaches to managing climate change impacts in cities | Philosophical Transactions of the Royal Society B: Biological Sciences (royalsocietypublishing.org)>. [Accessed 26 September 2022].
40. UN Women. (2018). 'Turning Promises into Action: Gender Equality in the 2030 Agenda for Sustainable Development.' Available at: <https://www.unwomen.org/en/news/stories/2018/2/press-release-launch-of-sdg-monitoring-report-gender-equality-in-the-2030-agenda> [Accessed 23 August 2022]
41. Azhar, G. S. (2017). 'As Heat Rises, Women Risk Death in South Asia'. Available at: <As heat rises, women risk death in South Asia (trust.org)> [Accessed 23 August 2022]
42. UNDP. (2012). 'Overview of linkages between gender and climate change.' New York: UNDP.
43. UN Women. (n.d.). 'Take urgent action to combat climate change and its impacts'. Available at: <https://www.unwomen.org/en/news/in-focus/women-and-the-sdgs/sdg-13-climate-action>. [Accessed 23 August 2022]
44. Robinson, S. (2022). 'Climate Security in Cities: An Evidence Summary.' Arup: London.
45. Schalatek, L. (2009). 'Gender and Climate Finance: Double Mainstreaming for Sustainable Development'. Washington D.C: Heinrich Böll Foundation.
46. UNDP. (2021). 'Gender and climate finance.' Available at: <https://climatefundsupdates.org/wp-content/uploads/2021/03/CFF10-ENG-2020-Digital.pdf> [Accessed 23 August 2022]
47. World Bank Group. (2011). 'Gender & Climate Change: 3 things you should know'. Washington D.C: World Bank Group.
48. Smith, E. (2022). 'Gender Dimensions of Climate Insecurity. SIPRI Insights on Peace and Security, No. 2022/4' Available at: <Gender Dimensions of Climate Insecurity (sipri.org)> [Accessed 23 August 2022]
49. IUCN. (2021). 'New data reveals slow progress in achieving gender equality in environmental decision making'. Available at: <New data reveals slow progress in achieving gender equality in environmental decision making | IUCN> [Accessed 23 August 2022]
50. Ibid.
51. UN Women. (2014). 'Making markets safer for women vendors in Papua New Guinea'. Available at: <Making markets safe for women vendors in Papua New Guinea | UN Women – Headquarters>. [Accessed 23 August 2022].
52. ActionAid. (2014). 'Safe Cities for Women: From Reality to Rights.' Available at: <https://actionaid.ie/wp-content/uploads/2016/10/Safe-Cities-for-Women-From-Realities-to-Rights-1.pdf> [Accessed 23 August 2022].
53. UNDP. (2020). 'Human Development Reports: Women's Empowerment Dashboard.' Available at: <Women's empowerment | Human Development Reports (undp.org)> [Accessed 23 August 2022].
54. Rechter, J. (2015). 'Violence against women: still blaming victims'. Available at: <Violence against women: still blaming victims (vichealth.vic.gov.au)> [Accessed 23 August 2022].
55. Ibid.
56. UN Women. (2022). 'Facts and figures: Ending violence against women.' Available at: <www.unwomen.org/en/what-we-do/ending-violence-against-women/facts-and-figures > [Accessed 11 October 2022]
57. ITV Meridan. (2022). 'Sussex police officer sacked for sending 'inappropriate photo' to sexual assault victim'. Available at: <Sussex police officer sacked for sending 'inappropriate photo' to sexual assault victim | ITV News Meridian> [Accessed 23 August 2022]
58. Sky News. (2021). 'Fewer women trust police after Sarah Everard murder, survey suggests.' Available at: <Fewer women trust police after Sarah Everard murder, survey suggests | UK News | Sky News> [Accessed 23 August 2022]
59. Decker, M. R. et al. (2019) "You Do Not Think of Me as a Human Being": Race and Gender Inequities Intersect to Discourage Police Reporting of Violence against Women. *Journal of Urban Health* 96 (5), 772-783.
60. Southeast Europe Police Chiefs Association. (2010). 'Establishing The Southeast Europe Women Police Officers Network.' Available at: <https://www.seesac.org/f/tmp/files/publication/827.pdf> [Accessed 23 August 2022]
61. Bhattacharya, A. (2021). 'India wants a third of its police force to be female, but it's not even close'. Available at: <The male-female ratio in the Indian police force is abysmal — Quartz India (qz.com)> [Accessed 23 August 2022]
62. United Nations Economic and Social Affairs. (2015). 'The World's Women 2015, Trends and Statistics.' Available at: <The World's Women 2015: Trends and Statistics | Multimedia Library - United Nations Department of Economic and Social Affairs> [Accessed 23 August 2022].
63. UN. (2022). 'Achieve gender equality and empower all women and girls.' Available at: <Goal 5 | Department of Economic and Social Affairs (un.org)> [Accessed 23 August 2022].
64. United Nations Development Programme. (2016). 'Sustainable Urbanization Strategy'. Available: <UNDP_Urban-Strategy.pdf> [Accessed 23 August 2022].
65. The World Bank. (2020). As above.
66. Arup. (2022). 'How can lighting make our cities more inclusive?'. Available at: <How can lighting make our cities more inclusive? - Arup?>. [Accessed 21 September 2022].
67. Arup. (2019). As above.
68. The Bridge. (2022). 'The Bridge: Support women since 1932.' Available at: <The Bridge (thebridge-uk.org)> [Accessed 23 August 2022].
69. OpenSidewalks. (n.d.). 'OpenSidewalks.' Available at: <OpenSidewalks | OpenSidewalks>
70. UN Women. (2017). 'Safe Cities and Safe Public Spaces: Global Results Report.' Available: <Safe-Cities-and-Safe-Public-Spaces-Global-results-report-en.pdf (unwomen.org)>. [Accessed 23 August 2022].
71. RTC. (2020). 'RTC bus stop additions light the way for safer transit experience.' Available at: <RTC bus stop additions light the way for safer transit experience - Newsroom (rtcsnv.com)> [Accessed 23 August 2022].
72. National Infrastructure Commission. (2017). 'VeloCity wins Growth Arc Ideas competition'. Available: <VeloCity wins Growth Arc Ideas competition - NIC> [Accessed 23 August 2022].
73. Bernard van Leer. (2019). 'Creating a safe walking route in hilly Lima'. Available at: <Creating a safe walking route in hilly Lima - Bernard van Leer Foundation>. [Accessed 21 September 2022].
74. Arup. (2019). As above.
75. Sustainable Energy Africa, City of Dakar, Enda Énergie Sénégal. (2020) City of Dakar: Civic Engagement in Climate Action. Available at: <City of Dakar: Civic Engagement in Climate Action> [Accessed: 28th September 2022].
76. Gender CC. (n.d.). 'Home'. Available at: <home (gendercc.net)> [Accessed 23 August 2022].
77. International Climate Initiative. (2022). 'Gender into Urban Climate Change Initiative (GUCCI)'. Available: <Gender into Urban Climate Change Initiative (GUCCI) | Internationale Klimaschutzinitiative (IKI) (international-climate-initiative.com)> [Accessed 23 August 2022].
78. Institute for Women's Policy Research. (2015). 'Gender, Urbanisation and Democratic Governance'. Available at: <Gender Urbanization and Local Governance White Paper.pdf (ndi.org)>. [Accessed 21 September 2022].
79. London & Partners (n.d.) 'London for cleantech'. Available: <https://www.business.london/invest/sectors/urban/cleantech>. [Accessed 23 August 2022].
80. Women4Climate. (2019). Gender Inclusive Climate Action in Cities: How Women's Leadership and Expertise Can Shape Sustainable and Inclusive Cities. Full Study.
81. Women4Climate. (2019). Gender Inclusive Climate Action in Cities: How Women's Leadership and Expertise Can Shape Sustainable and Inclusive Cities. Full Study.

References

82. London Sustainable Development Commission. (2018). Women in Cleantech: Is Cleantech Entrepreneurship missing out on the Diversity Dividend? Available at: <Women in Cleantech: Is Cleantech Entrepreneurship missing out on the Diversity Dividend> [Accessed 28th September 2022]
83. Federal Ministry for Economic Cooperation and Development (2015) Gender and Urban Climate Policy: Gender-Sensitive Policies Make a Difference.
84. Ibid.
85. Safetipin. (n.d.). 'Our Mission.' Available at: <Safetipin | Safetipin, Creating Safe Public Spaces for Women> [Accessed 23 August 2022].
86. Safetipin. (n.d.). Case Study – Delhi. Available at: <Safetipin | Case Study-delhi> [Accessed 23 August 2022].
87. National Pub Watch. (2021). 'Ask for Angela' if you are feeling unsafe'. Available at: <'ASK FOR ANGELA' IF YOU ARE FEELING UNSAFE - National Pubwatch>. [Accessed 21 September 2022].
88. Cities Alliance (2021) 'Tunisia: Street Art to Raise Awareness of Violence Against Women'. Available at: <https://www.citiesalliance.org/newsroom/events/tunisia-street-art-raise-awareness-violence-against-women.> [Accessed 23 August 2022].
89. Ibid.
90. Safe Shelter of St. Vrain Valley. (2022). 'VAWA 2022: The Recent Re-authorization of the Violence Against Women Act'. Available at: <VAWA 2022: The Recent Re-authorization of the Violence Against Women Act – Safe Shelter of St. Vrain Valley (safeshelterofstvrain.org)>. [Accessed 21 September 2022].
91. Euro Cities (No Date) 'Vienna'. Available at: <https://inclusivocities4all.eu/pledges/vienna/> [Accessed 23 August 2022].
92. Euro Cities (No Date) 'Nantes'. Available at: <https://inclusivocities4all.eu/pledges/nantes/>. [Accessed 23 August 2022].
93. Euro Cities (n.d.) 'Bologna'. Available at: <https://inclusivocities4all.eu/pledges/bologna/>. [Accessed 23 August 2022].
94. Euro Cities (n.d.) 'Ljubljana'. Available: <https://inclusivocities4all.eu/pledges/ljubljana/>. [Accessed 23 August 2022].
95. A measure of progress against SDG 5.1, to end all forms of discrimination against women and girls.
96. The World Bank (2020) 'Legal progress towards gender equality'. Available at: <https://datatopics.worldbank.org/sdgatlas/goal-5-gender-equality/>. [Accessed 23 August 2022]
97. OECD. (2019). 'A long way before turning promises into progress: discriminatory laws and social norms still hamper gender equality'. Available at: <https://www.oecd.org/gender/data/a-long-way-before-turning-promises-into-progress-discriminatory-laws-and-social-norms-still-hamper-gender-equality.htm>. [Accessed 23 August 2022].
98. Chang, E, Milkman, K. L., Zarrow, L. J, Brabaw, K, Gromet, D. M, Rebele, R, Massey, C, Duckworth, A. L., and Grant, A. (2019). 'Does diversity training work the way it's supposed to?' Available at: <Does Diversity Training Work the Way It's Supposed To? (hbr.org)> [Accessed 23 August 2022]
99. UN Women. (2021). 'Facts and Figures: Women's leadership and political participation.' Available at: <Facts and figures: Women's leadership and political participation | What we do | UN Women – Headquarters> [Accessed 5 October 2022]
100. Ibid.
101. Ibid.
102. Ibid.
103. Domingo, P. et al. (2015). 'Women's voice and leadership in decision-making'. London: Overseas Development Institute.
104. The Standard. (2020). 'Young women defy barriers to civic participation'. Available at: <Young women defy barriers to civic participation - The Standard (newsday.co.zw)> [Accessed 23 August 2022]
105. Manne, K. (2017) Down Girl: The Logic of Misogyny. Oxford: Oxford University Press.
106. International Disability Alliance. (2016). 'Participation of women with disabilities in decision-making processes.' Available at: <Participation of women with disabilities in decision-making processes | International Disability Alliance> [Accessed 23 August 2022]
107. Disability Unit. (2021). 'UK Disability Survey research report, June 2021'. Available at: <UK Disability Survey research report, June 2021 - GOV.UK (www.gov.uk)> [Accessed 23 August 2022]
108. Agarwal, P. (2018). 'Not very likeable: here is how bias is affecting women leaders.' Available at: <Not Very Likeable: Here Is How Bias Is Affecting Women Leaders (forbes.com)> [Accessed 23 August 2022]
109. Andrews, S. (2020). 'Why women don't always support other women'. Available at: <Why Women Don't Always Support Other Women (forbes.com)> [Accessed 23 August 2022]
110. Criado Perez, C. (2019). 'Invisible Women: Exposing Data Bias in a World Designed for Men'. New York: Vintage Books.
111. Ibid.
112. Wainwright, O. (2021). 'Why are our cities built for 6ft tall men? The female architects who fought back.' Available at: <Why are our cities built for 6ft-tall men? The female architects who fought back | Architecture | The Guardian> [Accessed 23 August 2022]
113. Ibid.
114. RICS. (2020). 'Enabling the built environment through gender equality.' Available at: <https://www.rics.org/uk/news-insight/latest-news/news-opinion/enabling-the-built-environment-through-gender-equality/> [Accessed 23 August 2022]
115. Kern, L. (2020). 'Feminist City: Claiming Space in a Man-Made World.' London: Verso Books.
116. World Bank. (2020). 'Women, business and the law 2020'. Available at: <Women, Business and the Law 2020 (worldbank.org)> [Accessed 23 August 2022]
117. The Rockefeller Foundation. (2014). 'In the Developing World, Property Rights for Women are about more than just housing'. Insights, Issue No. 1.
118. Almodovar-Regteguis, N. L. (2019). 'Where in the world do women still face legal barriers to own and administer assets.' Available at: <Where in the world do women still face legal barriers to own and administer assets? (worldbank.org)> [Accessed 23 August 2022]
119. The World Bank. (2019). 'Women in half the world still denied land, property rights despite laws.' Available at: <Women in Half the World Still Denied Land, Property Rights Despite Laws (worldbank.org)> [Accessed 23 August 2022]
120. Agarwal, B. & Panda, P. (2007). 'Toward Freedom from Domestic Violence: The Neglected Obvious.' Journal of Human Development 8 (3), 359-388.
121. Kimani, M. (2012). 'Women struggle to secure land rights.' Available at: <Women struggle to secure land rights | Africa Renewal (un.org)> [Accessed 23 August 2022]
122. UN. (2022). 'Ensure healthy lives and promote well-being for all at all ages.' Available at: <Goal 3 | Department of Economic and Social Affairs (un.org)> [Accessed 23 August 2022].
123. Government of Canada (n.d.) 'Gender-based Analysis Plus (GBA+)'. Available at: <https://women-gender-equality.canada.ca/en/gender-based-analysis-plus.html>. [Accessed 23 August 2022].
124. Government of Canada (No Date) 'Gender-based analysis plus – Treasury Board of Canada Secretariat, 2020-21 Departmental Results Report'. Available at: <https://www.canada.ca/en/treasury-board-secretariat/corporate/reports/2020-21-departmental-results-reports/gender-based-analysis-plus.html.> [Accessed 23 August 2022].
125. Sweden Government. (2022). 'Gender Equality: Equal power and influence for women and men – that's what Sweden is aiming for'. Available at: <https://sweden.se/life/equality/gender-equality>. [Accessed 23 August 2022].

References

126. Sweden Government. (n.d.). 'Feminist foreign policy'. Available at: <<https://www.government.se/government-policy/feminist-foreign-policy/>> [Accessed 23 August 2022].
127. UN Women. (n.d.). 'Sweden vows that all national policies, budgets and international aid will contribute to gender equality (updated)'. Available at: <Sweden steps it up: Vows that all national policies, budgets and international aid will contribute to gender equality | UN Women – Headquarters> [Accessed 23 August 2022].
128. World Bank. (2020). 'Proportion of seats held by women in national parliaments (%)'. Available at: <Proportion of seats held by women in national parliaments (%) - World Bank Gender Data Portal> [Accessed 23 August 2022].
129. Arup and LLDC. (2022). 'Safety of Women and Girls Consultation Report'. Available at: <<https://www.queenelizabetholympicpark.co.uk/-/media/220530-safety-of-women-and-girls-consultation-report.aspx?la=en>>. [Accessed: 5 October 2022].
130. Euro Cities (n.d.) 'Athens'. Available at: <<https://inclusivecities4all.eu/pledges/athens/>> [Accessed 23 August 2022].
131. Euro Cities (n.d.) 'Ljubljana'. Available at: <<https://inclusivecities4all.eu/pledges/ljubljana/>> [Accessed 23 August 2022].
132. Info Barcelona. (2021). 'Gender Justice Plan 2021-2025: combatting inequality through proximity and diversity'. Available at: <Gender Justice Plan 2021-2025: combatting inequality through proximity and diversity | Info Barcelona | Barcelona City Council> [Accessed 23 August 2022].
133. The World Bank. (2020). As above.
134. Ibid.
135. Bogota City Government. (2020). 'Bogotá has a new Public Policy for Women and Gender Equity in the next 10 years.' 30th December.
136. Bogota City Government (2021) 'Bogotá advances in its fight for gender equality.' Available at: <Bogotá advances in its fight for gender equality | Bogota.gov.co> [Accessed 23 August 2022].
137. City of Leipzig (n.d.) 'Advisory Board for Gender Equality'. Available at: <<https://english.leipzig.de/youth-family-and-community/women/advisory-board-for-gender-equality#:~:text=The%20Advisory%20Board%20for%20Gender%20Equality%20has%20a%20women%20and,select%20priority%20issues%20every%20year.>> [Accessed 23 August 2022].
138. City for All Women Initiative. (n.d.). 'Women's Civic Participation Kit.' Available at: <Women's Civic Participation Kit | City for All Women Initiative (cawi-ivtf.org)> [Accessed 23 August 2022].
139. Ibid.
140. Women Creating Change. (2021). 'A Blueprint for Women's Civic Engagement in New York City: Toward a More Just and Equitable Democracy.' Available at: <A Blueprint for Women's Civic Engagement in New York City – Women Creating Change (wccny.org)> [Accessed 23 August 2022].
141. Women for Climate. (n.d.). 'W4C - A Better City for Everyone: a Case Study on Barcelona's Gender Justice Plan'. [online]. Available at: <<https://w4c.org/case-study/better-city-everyone-case-study-barcelonas-gender-justice-plan>> [Accessed 24 August 2022].
142. Criado Perez, C. (2019). As above.
143. UNSGSA. (n.d.). 'Collecting and using gender-disaggregated data for financial policymaking'. Available at: <Microsoft Word - Policy Note Gender-Disaggregated Data FINAL-maja.docx (unsgsa.org)> [Accessed 23 August 2022].
144. Ibid.
145. Ibid.
146. City of Los Angeles (2021) 'Measuring Gender Equity in Cities: An Intersectional Set of Proposed Indicators.' Available at: <<https://sdg.lamayor.org/sites/g/files/wph1756/files/2021-08/Measuring%20Gender%20Equity%20in%20Cities%20-%20Occidental%20College%20Full%20Report.pdf>> [Accessed 23 August 2022].
147. Euro Cities (2020) 'Cities are leading the way to gender equality'. Available at: <<https://eurocities.eu/latest/cities-are-leading-the-way-to-gender-equality/>> [Accessed 23 August 2022].
148. Women4Climate (2019) As above.
149. Cosgrave, E. et al. (2020) 'Scoping Study – London's participation in UN Women's Safer Cities and Safe Public Spaces Programme.' UCL Urban Laboratory & UCL STEaPP's Urban Innovation and Policy Laboratory.
150. European Women's Lobby. (2020). 'Gender budgeting in the City of Vienna.' Available at: <Gender Budgeting in the City of Vienna (womenlobby.org)> [Accessed 23 August 2022].
151. Ibid.
152. Zanelli, M. L. et al. (2012) 'Improving Access to Urban Land and Property Entitlements for Women and Excluded Families in Cochabamba, Bolivia'. Paper prepared for presentation at the Annual World Bank Conference on Land and Poverty, 23-26 April.
153. Ibid.
154. UN-HABITAT. (2009). 'Shelter and Economic Empowerment of Women'. Available at: <UN-HABITAT.: Gender | Shelter and Economic Empowerment of Women (unhabitat.org)> [Accessed 23 August 2022].
155. United Nations. (n.d.). As above.
156. World Habitat Awards. (2008). 'Finalist: Shack Dwellers Federation of Namibia.' Available at: <Shack Dwellers Federation of Namibia - World Habitat (world-habitat.org)> [Accessed 23 August 2022].
157. Barnes, S. L. & Cowser, A. (2017). 'Building Homes and Building Lives: Benefits of Involvement in the Shack Dwellers Federation of Namibia'. Women, Gender, and Families of Color 5(2), 153-174.
158. Huairou Commission (n.d.) 'Learning Tools'. Available at: <Learning Tools – Huairou Commission> [Accessed 23 August 2022].
159. Nieuwenhuijsen, M. (2017). 'Green space is important for health'. Available at: <Green space is important for health - The Lancet> [Accessed 23 August 2022]
160. Roe, Jenny J., Catharine W. Thompson, Peter A. Aspinall, Mark J. Brewer, Elizabeth I. Duff, David Miller, Richard Mitchell, and Angela Clow. (2013). 'Green Space and Stress: Evidence from Cortisol Measures in Deprived Urban Communities' International Journal of Environmental Research and Public Health 10, no. 9: 4086-4103. <https://doi.org/10.3390/ijerph10094086>
161. Sola Corazon, S, Christofferen Gramkov, M, Varning Poulsen, D, Linn Lygum, V, Zhang, G, and Karlsson Stigsdotter, U. (2019). I Would Really like to Visit the Forest, but it is Just Too Difficult: A Qualitative Study on Mobility Disability and Green Spaces. Scandanavian Journal of Disability Research, 21(1), pp.1-13.
162. Brooks, H. (2018). 'What being newly disabled taught me about travelling by train'. Available at: <What being newly disabled taught me about travelling by train | The Independent | The Independent> [Accessed 23 August 2022]
163. PwC. (2018). 'Experience is everything: here's how to get it right'. Available at: <Experience is everything: Here's how to get it right (pwc.com)> [Accessed 23 August 2022]
164. AproDerm. (n.d.). 'Breastfeeding and stigma'. Available at: <Breastfeeding and stigma | AproDerm®> [Accessed 23 August 2022]
165. Criado Perez, C. (2019). 'Invisible Women: Exposing Data Bias in a World Designed for Men.' New York: Vintage Books.
166. ARUP and Transport Infrastructure Ireland. (2020). 'Travelling in a Woman's Shoes'. Available at: <https://www.tii.ie/technical-services/research/TII-Travelling-in-a-Womans-Shoes-Report_Issue.pdf> [Accessed 23 August 2022]
167. Stedwick, A. (2017). 'Why don't more women cycle?' Available at: <Why don't more women cycle? | Cycling UK> [Accessed 23 August 2022]
168. WHO. (2019). 'Uneven access to health services drives life expectancy gaps': WHO. Available at: <Uneven access to health services drives life expectancy gaps: WHO> [Accessed 23 August 2022]

References

169. WHO. (2019). As above.
170. Borchelt, G. (n.d.). 'The Impact Poverty has on women's health'. *Human Rights Magazine*, 43(3), pp16-19.
171. Unicef. (n.d.). 'Maternal nutrition'. Available at: <Maternal nutrition | UNICEF > [Accessed 23 August 2022]
172. Nutrition International. (n.d.). 'Good nutrition is crucial to overcoming gender barriers'. Available at: <Gender Equality - Nutrition International (nutritionintl.org) > [Accessed 23 August 2022]
173. The Hindu Business Line. (2018). 'Gender bias leads to anemia and malnourishment in girls' - The Hindu BusinessLine> [Accessed 23 August 2022]
174. WHO. (2021). 'Malnutrition'. Available at: <Fact sheets - Malnutrition (who.int)> [Accessed 23 August 2022]
175. Agenda. (n.d.). 'Women's mental health facts'. Available at: <Women's Mental Health Facts - Agenda (weareagenda.org)> [Accessed 23 August 2022]
176. Agenda. (n.d.). As above.
177. Koh, A. and Ross, L. (2006). 'Mental health issues: a comparison of lesbian, bisexual and heterosexual women'. *Journal of Homosexuality*, 51(1), pp.33-57.
178. Harvard School of Public Health. (2018). 'Indian Women a third of world's female suicides'. Available at: <Indian women a third of world's female suicides | News | Harvard T.H. Chan School of Public Health> [Accessed 23 August 2022]
179. Canetto, S. and Lester, D., 1995. The epidemiology of women's suicidal behaviour. In: S. Canetto and D. Lester, ed., *Women and Suicidal Behaviour*. New York: Springer, pp.35-57.
180. Samulowitz, A., Gremyr, I., Eriksson, E. and Hensing, G. (2018). "Brave Men" and "Emotional Women": A Theory-Guided Literature Review on Gender Bias in Health Care and Gendered Norms towards Patients with Chronic Pain. *Pain Research and Management*, 2018, pp.1-14.
181. WHO. (2021). 'WHO report highlights global shortfall in investment in mental health'. Available at: <WHO report highlights global shortfall in investment in mental health> [Accessed 23 August 2022]
182. Chant, S. (2013). 'Cities through a 'gender lens': a golden 'urban age' for women in the global south?' *Environment and Urbanisation*, 25(1), pp. 9 -29.
183. WaterAid. (2018). 'New female-friendly toilet guide addresses barriers women face to proper sanitation'. Available at: <Female-friendly toilet guide addresses barriers women face to proper sanitation (wateraid.org)> [Accessed 23 August 2022]
184. Our World in Data. (2021). 'Clean Water'. Available at: <Clean Water - Our World in Data> [Accessed 23 August 2022]
185. United Nations University. (n.d.). 'Water-related sustainable development goals'. Available at: <Water-Related Sustainable Development Goals – UNU-INWEH> [Accessed 23 August 2022]
186. WHO and UNICEF. (2017). 'Progress on drinking water, sanitation and hygiene'. Available at: <https://washdata.org/report/jmp-2017-report-final> [Accessed 23 August 2022]
187. United Nations. (n.d.). 'Water and Gender'. Available at: <Gender | UN-Water (unwater.org)> [Accessed 23 August 2022]
188. Young, S. (2019). Women need twice as many public toilets as men, say health experts. Available at: <Women need twice as many public toilets as men, says Royal Society for Public Health | The Independent | The Independent> [Accessed 23 August 2022]
189. Forgotten Women. (n.d.). Safe Toilets. Available at: <Safe Toilets – Forgotten Women> [Accessed 23 August 2022]
190. Cardoso, L., Scolese, A., Hamidaddin, A. and Gupta, J., 2021. Period poverty and mental health implications among college-aged women in the United States. *BMC Women's Health*, 21(1).
191. USAID, Kiawah Trust and Dasra. (2014) 'Spot On! Improving Menstrual Health and Hygiene in India'. Available at: <Spot On - Improving Menstrual Management in India.pdf (dasra.org)> [Accessed 23 August 2022]
192. Groundswell. (2020). 'Women, homelessness and health: a peer research project'. Available at: <Womens-Health-Research-Report.pdf (groundswell.org.uk)> [Accessed 23 August 2022]
193. Arup. (n.d.). Queering Public Space. Available at: <https://www.arup.com/perspectives/publications/research/section/queering-public-space> [Accessed 23 August 2022]
194. WHO. (2021) 'Ageing and Health.' Available at: <Ageing and health (who.int)> [Accessed 23 August 2022]
195. United Nations Department of Economic and Social Affairs. (2020). 'World Population Ageing 2020 Highlights. New York: United Nations.
196. Varrella, S. (2021). 'Feeling of loneliness among adults 2021, by country'. Available at: <• Loneliness among adults worldwide by country 2021 | Statista> [Accessed 23 August 2022]
197. Phoenix Health and Wellbeing. (n.d.). 'Loneliness in the LGBT community'. Available at: <Loneliness in the LGBT community - (phoenixhealthandwellbeing.org.uk)> [Accessed 23 August 2022]
198. Carlo, A. 2022. 'I felt true emptiness': A hidden loneliness crisis haunting Italy.' Available at: <'I felt true emptiness': A hidden loneliness crisis is haunting Italy | Euronews> [Accessed 23 August 2022]
199. Varrella, S. (2021). 'Feeling of loneliness among adults 2021, by country'. Available at: <• Loneliness among adults worldwide by country 2021 | Statista> [Accessed 23 August 2022]
200. Sun, H., & Gao, L. (2019). 'Lending practices to same-sex borrowers.' *Proceedings of the National Academy of Sciences of the United States of America*, 116(19), pp. 9293-9302. doi:10.1073/pnas.1903592116.
201. Phoenix Health and Wellbeing. (n.d.). 'Loneliness in the LGBT community'. Available at: <Loneliness in the LGBT community - (phoenixhealthandwellbeing.org.uk)> [Accessed 23 August 2022]
202. UN. (2022). 'Ensure healthy lives and promote well-being for all at all ages.' Available at: <Goal 3 | Department of Economic and Social Affairs (un.org)> [Accessed 23 August 2022]
203. Gardens by the Bay. (n.d.). 'Supertree Grove'. Available at: <Supertree Grove> [Accessed 23 August 2022]
204. Gardens by the Bay. (2013). 'Media releases on the Gardens.' Available at: <2013 (gardensbythebay.com.sg)> [Accessed 23 August 2022]
205. Penn State. (2020). 'Lactation Stations.' Available at: <Lactation Stations | PSU Human Resources> [Accessed 23 August 2022]
206. SWUP. (2019). 'SWUP – Sports for Women in Urban Places'. Available at: <The project – SW-UP Sport for Women in Urban Places (swup-project.eu)> [Accessed 23 August 2022]
207. SWUP. (n.d.). 'Guidelines for promoting physical activity for women in urban public spaces.' Available at: <SWUP-Guidelines-EN.pdf (swup-project.eu)> [Accessed 23 August 2022]
208. Build Jakes Place. (n.d.). 'Build Jake's Place.' Available at: <Build Jake's Place (buildjakesplace.org)> [Accessed 23 August 2022]
209. Tata Trusts. (2020). 'Healthcare on Wheels.' Available at: <Healthcare on wheels - Impact stories -Tata Trusts> [Accessed 23 August 2022]
210. Tata Trusts. (2020). 'Healthcare on Wheels.' Available at: <Healthcare on wheels - Impact stories -Tata Trusts> [Accessed 23 August 2022]
211. Sawada, Y., Ueda, M. and Matsubayashi, T., 2017. Railway Suicide in Japan. *Economic Analysis of Suicide Prevention*, pp.115-135.
212. Restrail Toolbox, n.d. Dispelling blue light source – Restrail Toolbox. [online] Restrail Toolbox. Available at: <https://www.restrail.eu/toolbox/spip.php?article115#:~:text=In%20Japan%2C%20introduction%20of%20blue,et%20al.%2C%202012.> [Accessed 23 August 2022].

References

213. Urban Sustainability Exchange. (n.d.). 'OMABA: Supplementary Food Recovery Program'. Available at: <OMABA Cooking Center (metropolis.org)> [Accessed 23 August 2022].
214. National Farmers Union. (2018). 'Markets and Infrastructure: The Montgomery Farm Women's Cooperative Market.' Available at: <Markets and Infrastructure: The Montgomery Farm Women's Cooperative Market | National Farmers Union (nfu.org)> [Accessed 23 August 2022].
215. Water for All. (n.d.). 'Our Story.' Available at: <Our story - Water for all (water4all.org)> [Accessed 23 August 2022].
216. Water for All. (2021). 'Project Drinking Water Mongolia (DWM).' Available at: <Our projects - Water for all (water4all.org)> [Accessed 23 August 2022].
217. Trucker Drivers US. (n.d.). 'Buses being transformed into respite stations for the homeless'. Available at: <Buses being transformed into respite stations for the homeless - Truck Drivers U.S.A. (truckdriversus.com)> [Accessed 23 August 2022].
218. Azari, A. (2021). 'Jersey City to provide 'health buses' for people who are homeless to shower, do laundry.' Available at: <Jersey City to provide 'health buses' for people who are homeless to shower, do laundry | GMA (goodmorningamerica.com)> [Accessed 23 August 2022].
219. London Borough of Richmond upon Thames. (2021). 'Community Toilet Scheme.' Available at: <Community Toilet Scheme - London Borough of Richmond upon Thames> [Accessed 23 August 2022].
220. London Borough of Richmond upon Thames. (2021). 'Join the Scheme.' Available at: <Join the scheme - London Borough of Richmond upon Thames> [Accessed 23 August 2022].
221. Brooks, L. (2018). 'Scottish Council to provide free sanitary products in toilets.' Available at: <Scottish council to provide free sanitary products in toilets | Menstruation | The Guardian> [Accessed 23 August 2022].
222. DASH. (2022). 'Online referral form.' Available at: <www.dashorg.co.uk/online-referral-form/> [Accessed 17 October 2022].
223. DASH. (2022). 'Vulnerable women's project.' Available at: <www.dashorg.co.uk/vulnerable-womens-project/> [Accessed 17 October 2022].
224. Arup. (2019). 'Cities Alive: Designing for Ageing Communities.' Available at: <Cities Alive: Designing for ageing communities - Arup> [Accessed 23 August 2022].
225. Ibid.
226. London Older Lesbian Cohousing. (2022). 'Welcome to London Older Lesbian Cohousing.' Available at: <https://lolcohousing.co.uk/> [Accessed 23 August 2022].
227. London Older Lesbian Cohousing. (n.d.). 'Things are moving fast...' Available at: <https://lolcohousing.co.uk/newsletter/> [Accessed 23 August 2022].
228. London Older Lesbian Cohousing. (n.d.). 'Our vision and values.' Available at: <https://lolcohousing.co.uk/vision-and-values/> [Accessed 23 August 2022].
229. Parkinson, T., Schiavon, S., de Dear, R. and Brager, G., (2021). 'Overcooling of offices reveals gender inequity in thermal comfort'. Scientific Reports, 11(1).
230. DIY Girls. (n.d.). 'Why It Matters'. Available at: <Why It Matters – DIY Girls> [Accessed 23 August 2022].
231. Seron, C., Silbey, S., Cech, E. and Rubineau, B., (2016). 'Persistence Is Cultural'. Work and Occupations, 43(2), pp.178-214.
232. Students at MIT, Olin College of Engineering, Picker Engineering at Smith College for Women, and the University of Massachusetts at Amherst
233. Pough, L and Eid, N. (2021). 'Disability Employment Gap Among Women and Girls with Disabilities.' Available at: <Disability Employment Gap Among Women and Girls With Disabilities – RUH Global Impact> [Accessed 23 August 2022].
234. Watts, J. (2012). 'Women working in construction management roles: is it worth it?' Global Journal of Management Science and Technology, 1(3), pp. 38-44.
235. Cox, M. (2020). 'LGBT women in construction say gender is a bigger career barrier than their sexuality'. Available at: <LGBT women in construction say gender is a bigger career barrier than their sexuality – Loughborough University> [Accessed 23 August 2022].
236. Iglesias, C. (2020). 'The gender gap in internet access: using a women-centred method'. Available at: <The gender gap in internet access: using a woman-centred method – World Wide Web Foundation> [Accessed 23 August 2022].
237. White Arkitekter. (n.d.). Places for Girls. Available at: <Flickr — Places for girls project | White Arkitekter> [Accessed 23 August 2022].
238. Women in Sport and Sport England. (2018). 'Puberty and Sport: An Invisible Stage'. Available at: <Puberty PP - final with links (womeninsport.org)> [Accessed 23 August 2022].
239. Akdede, S. H. and Ateca-Amestoy, V. (2021). 'Women's cultural attendance in Istanbul: Why so low?' Journal of International Women's Studies, 22(1), pp. 181-200.
240. The Times of India. (2017). 'Buy alcohol, get comments and stares for free', says Delhi women'. Available at: <'Buy alcohol, get comments and stares for free', say Delhi women | Delhi News - Times of India (indiatimes.com)> [Accessed 23 August 2022].
241. Hastings, C. (2022). 'Pricks: this new podcast delves into the shocking drink and needle spiking epidemic in the UK'. Available at: <Drink spiking UK epidemic: one woman tells her terrifying story (stylist.co.uk)> [Accessed 23 August 2022].
242. Ibbetson, C. (2021). 'One in nine women say they have had their drink spiked'. Available at: <One in nine women say they have had their drink spiked | YouGov> [Accessed 23 August 2022].
243. Statues for Equality (n.d.). 'Why Is A Female Statue So Important?' Available at: <Why Is a Female Statue So Important? – Statues For Equality> [Accessed 23 August 2022].
244. Meier, A. (2015). 'Mapping the gender imbalance in city street names'. Available at: <Mapping the Gender Imbalance in City Street Names (hyperallergic.com)> [Accessed 23 August 2022].
245. BBC. (2022). 'BBC identifies young people killed in Iran's protests.' Available at: <www.bbc.co.uk/news/world-middle-east-63242100> [Accessed 17th October 2022].
246. BBC. (2022). 'Nika Shakarami: Iran protester's family forced to lie about death' Available at: <www.bbc.co.uk/news/world-middle-east-63154994> [Accessed 17th October 2022].
247. BBC. (2022). 'Iran protests: Women around the world cut their hair.' Available at: <www.bbc.co.uk/news/av/world-asia-63204259> [Accessed 17th October 2022].
248. Ganguly, M. (2020). 'Protesting sexual assault in India isn't a conspiracy.' Available at: <Protesting Sexual Assault in India Isn't a 'Conspiracy' | Human Rights Watch (hrw.org)> [Accessed 23 August 2022].
249. Statues for Equality (n.d.). 'Why Is A Female Statue So Important?' Available at: <Why Is a Female Statue So Important? – Statues For Equality> [Accessed 23 August 2022].
250. Advisa, 2017. 'Dead Men On Dollar Bills'. Advisa. Available at: <https://advisa.se/en/research/bills/> [Accessed 24 August 2022].
251. UN. (n.d.). 'Goal 4'. Available at: <Goal 4 | Department of Economic and Social Affairs (un.org)> [Accessed 23 August 2022].
252. UN. (n.d.). 'Goal 8'. Available at: <Goal 8 | Department of Economic and Social Affairs (un.org)> [Accessed 23 August 2022].
253. Hitti, N. (2019). 'Spacon & X brings order to Space10's head office with adaptable partitions.' Available at: <Space10's office redesigned by Spacon & X with adaptable partitions (dezeen.com)> [Accessed 23 August 2022].
254. Umeh, J. (2021). 'Women power: 23m women entrepreneurs put Nigeria on global map.' Available at: <WOMEN POWER: 23m women entrepreneurs put Nigeria on global map (vanguardngr.com)> [Accessed 23 August 2022].

References

255. Awomolo, H. (n.d.). 'More women are embracing co-working in Nigeria.' Available at: <More Women are embracing Co-working in Nigeria | She Leads Africa | #1 destination for young African ambitious women.> [Accessed 23 August 2022].
256. ProTradeCraft. (2020). 'Breaking down gender bias: a toolkit for construction business owners'. Available at: <Breaking Down Gender Bias: A Toolkit for Construction Business Owners (protradecraft.com)> [Accessed 23 August 2022].
257. Doostan. (n.d.). 'About Doostan'. Available at: <Doostan » About Doostan> [Accessed 23 August 2022].
258. Doostan. (n.d.). 'Doostan School – No. 6.' Available at: <Doostan » Doostan School—No. 6> [Accessed 23 August 2022].
259. Human Rights Watch. (2020). 'Afghanistan: Women with Disabilities Face Systemic Abuse.' Available at: <Afghanistan: Women with Disabilities Face Systemic Abuse | Human Rights Watch (hrw.org)> [Accessed 23 August 2022].
260. Hetherly, M. (2020). 'Isle view park tribute garden is living remembrance of domestic violence.' Available at: <Isle view park tribute garden is living remembrance of domestic violence> [Accessed 23 August 2022].
261. Jennings V and Bamkole O. (2019). The Relationship between Social Cohesion and Urban Green Space: An Avenue for Health Promotion. *Int J Environ Res Public Health*, 16(3), p452.
262. Lange, A. (2021). 'Teen Girls Need Better Public Spaces to Hang Out.' Available at: <We Need More Public Space for Teen Girls - Bloomberg> [Accessed 23 August 2022].
263. Ravenscroft, T. (2020). 'Timber community centre built alongside London's last windmill.' Available at: <Timber community centre built alongside Brixton Windmill (dezeen.com)> [Accessed 23 August 2022].
264. DIY Girls. (n.d.). 'DIY Girls.' Available at: <DIY Girls.> [Accessed 23 August 2022].
265. Garage Girls. (n.d.). 'Fear Less. Build More'. Available at: Girls Garage [Accessed 23 August 2022].
266. MEND. (2019). 'Prayer Spaces in Schools.' Available at: <Prayer Spaces in Schools - Muslim Engagement and Development (mend.org.uk)> [Accessed 23 August 2022].
267. Ibid.
268. Abdelfattah, L, Deponte, D and Fossa, G. (2022). 'The 15-minute city: interpreting the model to bring out urban resilience'. *Transportation Research Procedia*, 60, pp. 330-337.
269. Bruntlett, M. (n.d.). 'The 15-Minute City: A Feminist Utopia?' Available at: <TUMI_WMW_Feminism_and_the15min_City.pdf (transformative-mobility.org)> [Accessed 23 August 2022].
270. Balancing Act. (n.d.). 'Zimbabwe: Community library brings internet to remote village'. Available at: <Zimbabwe: community library brings internet to remote village> [Accessed 23 August 2022].
271. World Economic Forum. (2018). '104 countries have laws that prevent women from working in some jobs' Available at: <104 countries have laws that prevent women from working in some jobs> [Accessed 23 August 2022].
272. Iglesias, C. (2020). 'The gender gap in internet access: using a women-centred method.' Available at: <The gender gap in internet access: using a women-centred method> [Accessed 23 August 2022].
273. Pxsy Palace. (n.d.). 'Pxsy Palace.' Available at: <PXSSY PALACE> [Accessed 23 August 2022].
274. Monumental Women. (n.d.). 'We Are'. Available at: <Monumental Women> [Accessed 23 August 2022].
275. Monumental Women. (2020). 'The Women's Rights Pioneers Monument.' Available at: <The Monument Unveiling » Monumental Women> [Accessed 23 August 2022].
276. Hunt, E. (2019). 'City with a female face: how modern Vienna was shaped by women'. Available at: <City with a female face: how modern Vienna was shaped by women> [Accessed 23 August 2022].
277. Olufemi, L. (2020). 'Feminism, Interrupted.' London: Pluto Press.
278. The Free Black Women's Library. (n.d.). 'The Free Black Women's Library' Available at: <https://www.thefreeblackwomenslibrary.com/> [Accessed 23 August 2022].
279. The Feminist Library. (n.d.). 'The Feminist Library'. Available at: <https://feministlibrary.co.uk/> [Accessed 23 August 2022].
280. Mayday Rooms. (n.d.). 'Mayday Rooms'. Available at: <https://maydayrooms.org/rooms/> [Accessed 23 August 2022].
281. Sisters Uncut. (2017). 'Press release: Feminists occupy Holloway Prison to demand more domestic violence services'. Available at: <Sisters Uncut: Press release: Feminists occupy Holloway Prison to demand more domestic violence services> [Accessed 23 August 2022].
282. Olufemi, L. (2020). As above.
283. Hauck, C. (2021). 'Why male allyship matters in the workplace.' <Available at: Why Male Allyship Matters in the Workplace - Mindful> [Accessed 23 August 2022]
284. Ibid.
285. Johnson, W and Smith, D, G. (2021). 'Male Allyship is about paying attention.' <Available at: Male Allyship Is About Paying Attention (hbr.org)> [Accessed 23 August 2022]
286. Badalova, K. (2022). 'The role of education in the inclusive society.' Available at: <(1) The role of education in the inclusive society | Konul Badalova - Academia.edu> [Accessed 23 August 2022]
287. University of Liverpool. (2022). 'About us'. Available at: <https://www.liverpool.ac.uk/about/> [Accessed 23 August 2022].
288. UNDP. (2022). 'About us'. Available at: <https://www.undp.org/about-us>, [Accessed 23 August 2022].

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