

AT2030
Case Study: Executive
Summary

Inclusive Design and Accessibility of the Built Environment in Solo, Indonesia

Prepared by
GDI Hub

**Cluster 4 Capacity
& Participation**
Inclusive Infrastructure

Country
Indonesia

Date
March 2022



Funded by



Led by



In partnership with





Suggested citation: Patrick, M., McKinnon, I., Putri Prastika, K., Asterina, N. and Jamil, F. (2022) Inclusive Design and Accessibility in Solo, Indonesia. AT2030 Inclusive Infrastructure Case Studies. Prepared by the Global Disability Innovation Hub and partners for the UK Foreign, Commonwealth and Development Office. DOI:

Summary: Becoming a more inclusive city

“An inclusive Solo is somewhere that can be experienced by everybody in a fair and equal way. By creating safe and accessible environments for all members of the community the city can allow everyone to access and participate in the opportunities they would like.”

Surakarta (known as Solo) is a city in Central Java, Indonesia, with a population of 557,606 people. The city has a strong history of inclusion, recognised as a great place for persons with disabilities in Indonesia to live. This history stems from the foundation of the Dr. Soeharso Rehabilitation Centre in Solo in the 1950s through to the implementation of a local regulation on disability rights in 2008 (Local Law No. 2/2008 on Disability Rights) that precedes Indonesia’s ratification of the UN’s Convention on the Rights of Persons with Disabilities (UNCRPD) in 2011. Overall, there is a strong policy framework to deliver on disability inclusion both in Indonesia

and locally in Solo through city level regulations. Indonesia has also demonstrated a commitment towards inclusive cities through the work of the Inclusive Mayor’s Network in Indonesia¹. Some challenges to delivering on these frameworks include implementation, cooperation between government departments



An accessible bus stop in Solo

and sectors, translation of knowledge and vision into action, resources, and the long-term sustainability of initiatives.

¹ https://www.ilo.org/jakarta/info/public/pr/WCMS_593078/lang--en/index.htm

The city demonstrates the power of a culture of inclusion, a city where persons with disabilities mostly feel accepted, acknowledged, and included through an inclusive social environment. The wider community is a key part of forming this culture and community-led initiatives and community assets and networks are both important and valued. Community participation and community leadership is encouraged and supported through urban governance structures, facilitating the amplification of citizen's voices and their aspirations. However, improvements could be made to specifically support people with disabilities' participation in community dialogues, particularly in the recovery from the pandemic which has affected participation and impacted people's livelihoods. A strong culture of inclusion is supported by some accessible infrastructure and while there are still numerous challenges to implementing inclusive infrastructure in Solo, **there is political will and a vision to become a more inclusive city.**

To deliver on inclusive infrastructure, there is a need for better collaboration between policy and practice. Built environment practitioners are often drawing on international standards and references not local, specific, data that is suited to Solo's context. There is a strong view that international standards are not necessarily fit-for-purpose in Indonesia and a desire for inclusive design standards that are locally adapted and embrace Indonesian culture. More data and evidence on disability in Solo would support more specific local initiatives, particularly disaggregated data that recognises diversity and intersectionality. Currently there are siloes between planning and technical delivery of infrastructure which does not support good inclusive design practice as it leads to a lack of clarity on who is accountable for inclusive design.



While some excellent progress has been made in terms of accessible infrastructure such as the BST bus stops, Solo needs a more comprehensive inclusive design strategy to guide its development to ensure its residents have inclusive experiences. The bus stop is a key example as while accessible design was delivered initially, people's door to door journeys and the future service provision were not considered. For example, when the bus vehicles were replaced with new ones, it resulted in an 'accessibility gap' between the bus stop platform and the bus.



The accessibility gap – there is a need for door to door inclusive design

Fundamentally, **inclusive infrastructure must support and improve people's daily lives**. When resources are limited, accessible design interventions can often be limited to essential services such as accessing government services, healthcare, education, and transport. However, according to participants, a much wider variety of infrastructures are key to a fulfilling urban life including inclusive green



Gede market has accessibility features, but implementation and maintenance in use could be improved.

spaces, recreational spaces, religious spaces, markets, and tourism. The assistive technologies people can access are also essential in facilitating access to the urban environment. An inclusive design approach to city planning can support all citizens to experience their city in a fair and equal way, providing a framework to integrate people's needs and aspirations in urban development. A city-wide inclusive design strategy should therefore try to integrate this broader scope of inclusive infrastructure

while also being realistic on resource constraints. An inclusive design strategy at the city scale would benefit from considering the role of neighbourhoods in urban life and **make space for grassroots inclusive design and planning that is led by communities in the places that they live.**

“Inclusive cities are cities that have placed disabled persons as actors of development. The key is there, starting from planning, organizing, monitoring to evaluation or feedback.”

Inclusive infrastructure, cities and communities, are more than the physical built environment: the processes of inclusion and participation are key enablers of inclusive environments. Attention to how persons with disabilities are included in city development, ensuring these processes are accessible for all citizens and persons with disabilities are employed in these sectors will help create processes that deliver good inclusive city design. Inclusive



Community-led action, such as the work of the Hore Hore community is a powerful tool for advocacy in inclusive city design.

urban development processes are more necessary than ever as cities worldwide begin to build back from the COVID-19 pandemic whilst simultaneously facing ongoing challenges such as the increasing impacts of climate change. Cities must build in resilience to these crises, and this can be done through integrating (environmental, economic and social) sustainability and inclusion in urban development to ensure those who are most disadvantaged are not left behind. As the quote above illustrates, ultimately when persons with disabilities are fully recognised and included as participants in urban development – as policy-makers, planners, designers and as citizens – then we will have an enabling environment to create a more inclusive city.



Key barriers to an inclusive city

While Solo has made good progress towards inclusion, the following common challenges were identified:

- Multi-sectoral collaboration is needed, a lack of coordination between departments can create gaps in accessible infrastructure provision.
- Consider diversity and intersectionality in inclusive city projects, both in data collection and in project or programme design.
- COVID-19 has challenged participation, livelihoods and community participation. People need to rebuild trust, feel safe in urban environments, and recover from the challenges experienced during the pandemic.
- Inclusive design interventions are challenged by sustainability, due to resources being cut or funding programmes ending. All inclusive design projects should consider sustainability (economic, social, environmental) from the outset.
- Health and sanitation services are a high priority for accessibility. Water and sanitation infrastructure such as open drains can be a hazard and mental health must be included within core healthcare services.
- Infrastructure to support resilience to crises such as pandemic, disasters, climate change needs to be accessible and inclusive. Persons with disabilities are most affected.
- Knowledge and understanding, and a vision for an inclusive city is there. It needs to translate into robust implementation which involves engaging wider stakeholders to ensure good quality delivery.
- Inclusive design interventions exist but a holistic inclusive design approach is missing, door-to-door inclusive design is needed to ensure people can have inclusive access to the city.
- Good quality implementation with suitable materials and good maintenance is needed to create inclusive environments. In some cases, installations were not fit for purpose.
- Better data on disability in the city would be useful to support programming and monitoring and evaluation efforts of existing infrastructures and programmes would support better future delivery.
- Focus and alignment on the city's vision would be beneficial. Intersecting but sometimes conflicting visions for inclusive, smart, child-friendly cities can dilute resources. One comprehensive inclusive city strategy that encompasses all disadvantaged groups and provides specific design principles and

standards to guide disability-inclusive urban development would be more effective.

Recommended actions

- Cooperation, collaboration and coordination: across government sectors, with practitioners, with communities – an inclusive city is built together.
- Engage the private sector in inclusive city initiatives, privately-owned spaces and infrastructure that serves the public must also be inclusive.
- Develop further tools to support community participation in urban planning and governance, particularly for people with disabilities.
- Dedicate budgets to inclusive city design and work towards long-term financial sustainability for inclusive design implementation.
- Embrace local knowledge, develop an inclusive design strategy for Solo that integrates local expertise and culture.
- Support assistive technology users through developing inclusive infrastructure that considers the needs of diverse AT users.
- Encourage and facilitate community leaders to amplify the voices of their communities to integrate bottom-up urban planning.
- Scale and replicate what works, where innovations have been successful, learn from them and test how they can be applied elsewhere.
- Let Solo lead by example, Solo has success stories to share across Indonesia and globally.

Creating an enabling environment

An enabling environment for persons with disabilities should integrate: a supportive legislative environment, an inclusive culture and mindset, participation in planning, design and decision-making, positive cultural change, an accessible and inclusive built environment and access to good quality and affordable assistive technology. Some of these aspects are already taking place in Solo but for an inclusive city to maintain an enabling environment it is necessary to ensure robust, sustainable, disability-inclusive urban development processes are implemented.





So what does an inclusive Solo look like?

- **Participation:** A city where people with disabilities are recognised and directly involved in urban development
- **Mobility:** A city with an integrated inclusive transport network that facilitates people's mobility from door to door.
- **Urban life:** A city where all types of spaces are inclusive and accessible, enabling people with disabilities to fully participate in urban life
- **Leisure and wellbeing:** Inclusive tourism, recreational spaces and green spaces for all
- **Resilience:** Inclusive and sustainable infrastructure that supports resilience to crises and climate change
- **Assistive technologies and enabling infrastructure:** easy and affordable access to the assistive technologies people need and a built environment and infrastructure that supports their use.
- **Opportunities:** equity of access to opportunities and information for all, including those employed in the informal sector.



An accessible bathroom in a train station in Solo.

What's next?

This report outlines the key findings from a six-month research case study on the city of Solo. As the third of six case studies on inclusive design and the built environment in lower-and-middle-income countries, this report will go on to inform global actions on inclusive design.

The findings of this report will be shared with both international and local audiences through a range of dissemination activities and GDI Hub will continue to support Kota Kita's activities in Solo and across Indonesia through the AT2030 programme.

The data collection that informed this case study took place prior to the second wave of COVID-19 in Indonesia. We recognise the impact the pandemic has had on partners and communities and hope this research on inclusive environments can support strategies for an inclusive recovery.



Acknowledgements

This report was written by Mikaela Patrick and Iain McKinnon of GDI Hub under the AT2030 programme, directed by Vicki Austin with support from Nina Asterina, Kirana Putri Prastika, Fuad Jamil and Ahmed Rifai of Kota Kita.

We'd like to thank our team at Kota Kita based in Solo including Nina Asterina, Kirana Putri Prastika, Fuad Jamil, Vanesha Manuturi, and Ahmad Rifai for their commitment to this case study during challenging times.

We'd like to thank all the team at the Municipality of Solo for their support and engagement. We'd also like to thank the following OPDs and community organisations for their support: the Disability Advocacy Team in Surakarta, Disabilities Inclusion & Advocacy Centre (SIGAB), the Indonesian Union for the Blind (Pertuni) Solo, Indonesian Movement for the Welfare of the Deaf (Gerkatin) Solo, Community Resource Rehabilitation Training and Development Center (PPRBM) Solo, Forum Gerak Difabel and the Hore-Hore community. We'd also like to thank the following organisations for their support: the Executive Office of the President, Universitas Sebelas Maret (UNS), Arkom Solo, and ORCA Incorporation.

We'd like to thank all of the participants in the research for their enthusiasm and honesty. It is our goal to amplify the voices of persons with disabilities in our research and we hope this report reflects your vision for a more inclusive and accessible Solo.

We'd also like to thank the GDI Hub team who have supported the work, including; Vicki Austin, Katherine Perry, Naomi Thompson, Prof. Cathy Holloway, and Louise Gebbett and finally, the members of our research advisory group who are; Luis Artieda, Prof. Richard Bibb, Rama Gheerawo, Chapal Khasnabis, Dr. Maria Kett, Sophie Morley and Julian Walker for their continued guidance and support.

This research has ethical approval from University College London (UCL) and permission from the Municipal Government of Solo.



Global Disability Innovation Hub

www.disabilityinnovation.com

GDI Hub is a research and practice centre driving disability innovation for a fairer world. Our vision is of a world without barriers to participation and equitable opportunity for all. We believe disability innovation is part of a bigger movement for disability inclusion and social justice. GDI Hub works across 5 domains, research, innovation, programmes, teaching, and advocacy. We are solutions-focused experts in; Assistive & Accessible Technology; Inclusive Design; Inclusive Education Technology; Climate & Crisis Resilience and Cultural Participation. Based in East London and a legacy of London 2012 Paralympic Games, we deliver world-class research, ideas and inventions, creating new knowledge, solutions and products, and shaping policy through co-creation, participation and collaboration. An Academic Research Centre (ARC) and a not-for-profit Community Interest Company (CIC) we are guided by an Advisory Board of disabled people. We are operational in over 35 countries and have reached 21 million people since our launch in 2016.

Kota Kita

www.kotakita.org

Kota Kita works with citizens in making their cities a better place. We are a non-profit organization based in Solo, Indonesia working to bridge dialogues between governments and citizens by facilitating the involvement of all citizens — especially the marginalized and excluded. Because without these voices, we will never realize a city shaped and informed by empowered citizens — A City for All. Kota Kita has been collaborating with GDI Hub on the AT2030 programme since 2019, supporting persons with disabilities living in Banjarmasin and Solo.



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March 2022

