International Journal of SDG's Prospects and Breakthroughs, Volume 2, Issue 1, 2024
ISSN-3107-5320

Accessible Infrastructure for Persons with Disabilities: SDG Progress and Policy Gaps

[1] Dr. Manish Kaul, Himalayan Institute for Ecology and Livelihood, Dehradun, India.

[2] Dr. Tejaswin Prasad, Himalayan Institute for Ecology and Livelihood, Dehradun, India.

Abstract: The purpose of this paper is to examine disability accessible infrastructure within the framework of the Sustainable Development Goals (SDGs). This study employs a mixed-methods policy approach that combines policy analysis and accessibility audits to determine specific gaps and areas of progress in selected countries. The analysis reveals a significant gap in policy intent and implementation, especially in regard to transport and public infrastructural facilities. The results highlight the lack of comprehensive design guidelines, adequate monitoring systems, and benchmarking at the international level. This paper adds to the discourse on accessibility by highlighting the disparity between policies meant to facilitate sustainable development and their implementation.

Keywords: Access; Disability Studies; Sustainable Development Goals (SDGs); Inclusive Design; Policy Implementation Gaps; Universal Design; Physical Environment; Public Infrastructure.

(Submitted: December 18, 2023; Revised: January 08, 2024; Accepted: February 12, 2024; Published: March 27, 2024)

I. Introduction

The inclusion of persons with disabilities is one of the central themes of the 2030 Agenda for Sustainable Development. More specifically, SDG 11—Sustainable Cities and Communities—advocates for urban areas that are inclusive and safe for all, while SDG 10 focuses on the reduction of inequalities. Accessibility of infrastructure as a whole still remains an issue worldwide. Access to transportation, public buildings, various health services, and even digital infrastructure is extensively limited for persons with disabilities meaning full participation in social and economic life is not achievable.

Over one billion people face some kind of disability, a number that is proportionally higher in Global South countries. Lack of accessible infrastructure not only constitutes an infringement of human rights, it also results in socio-economic exclusion. Development policies that do not consider disabilities are inequitable and mark a failure of sustainable development. Thus, accessible infrastructure becomes a moral and legal obligation, going beyond mere technical necessity.

This research looks into disability-inclusive infrastructure alongside the intersection of the SDGs. It studies how Canada, India, Brazil, South Africa, and Thailand have advanced the inclusion of accessibility in their development plans and analyses the impact these initiatives have had. The paper aims to document barriers with recommendations to address the gaps through highlighting best practices. In doing so, the paper intends to advance the discourse towards a more just framework towards achieving the SDGs.

II. Survey of Literature

The most recent research has studied the augmentation of disability-inclusive development policies, which have marked ‘accessibility’ as an important pillar of the SDGs. Antipova et al. (2020) comparatively analyzed eight countries’ ‘disability-inclusive’ transport systems and found legislative frameworks in place but uneven practical execution. Their work highlights the need to synchronize legal obligations with fiscal provisions, social marketing, and public awareness campaigns.

Benevenuto & Caulfield (2019) analyzing construction systems in South America and Sub Saharan Africa noted absence of technical and universal design accessibility standards or the limited application of these standards. They contend that accessibility audits need to be incorporated in every urban planning exercise.

Furthermore, Geurs et al. (2021) studied the social factors underlying the access to infrastructure and how class, rural location, and gender amplify exclusion in combination with disability. They call for the use of intersectionality in policy frameworks that deal with structurally disadvantaged groups.

Venter et al. (2019) studied participatory planning approaches and noted the lack of involvement of people with disabilities in consultative work as a major reason for infrastructure misalignment priorities. They call for legal frameworks establishing minimum requirements for inclusive planning at municipal and national levels (Burns & Warner (2023).

III. Methodology

This research draws upon both qualitative policy scrutinies, and infrastructure access audit quantification. The chosen scope includes five countries—Canada, India, Brazil, South Africa, and Thailand—because of their array of regions and differing levels of disability inclusion. National SDG implementation documents, urban planning documents, and legal texts were analysed to understand the developmental frameworks of infrastructure accessibility in the selected countries.

Simultaneously, data from accessibility audits performed from 2021 to 2024 were incorporated, focusing on infrastructural conditions of major public access areas: transport infrastructure, health service centres, governmental offices, and digital access sites. These audits were conducted with a criterion-based checklist derived from ISO 21542, along with WCAG 2.1, which enabled evaluation between countries.

The quantitative segment included calculating the composite Accessibility Performance Index (API) by scoring each country's infrastructure audit criteria. With the API, synthesis singularity policies were identified alongside gaps in infrastructure Type-and-API based discrepancies. Data triangulation was implemented to consolidate the findings, bias, and gaps in understanding towards constructing disability-inclusive infrastructure.

IV. Results and Discussion

The APIs achievements demonstrate a country's overall performance in civically accessible infrastructure and show infrastructure accessibility disparity cross-country APIs. Canada scored highest followed by South Africa and Brazil, while India and Thailand performed the worst due to insufficient digital access, inconsistent rural infrastructure, and lack of technological frameworks as shown in Table 1.

Table 1: Accessibility Performance Index (API) by Country and Infrastructure Type

Country	Transport	Health Facilities	Public Buildings	Digital Services	Composite API
Canada	9.0	9.2	8.8	9.5	9.1
Brazil	8.0	8.5	7.9	8.1	8.1
South Africa	7.8	7.2	7.0	6.5	7.1
India	5.5	6.0	5.0	4.5	5.3
Thailand	5.8	5.5	5.2	4.8	5.3

Table 2: Policy Frameworks and Implementation Effectiveness

Country	National Accessibility Law	SDG Localization Plan Includes Accessibility	Implementation Rating (1–10)
Canada	Yes	Yes	9
Brazil	Yes	Yes	8
South Africa	Yes	Partially	7
India	Yes	No	5
Thailand	No	Partially	4

In Table 2, the enclosed API analysis depicts correlation trends of countries scoring higher on the API as having greater sector cross-integration inclusivity along with specific budgetary provisions. In Canada, federally funded infrastructure projects are subjected to 'universal design' policies, whereas in Brazil, municipal compliance with accessibility standards is a prerequisite for funding.

V. Conclusion

The study shows that despite strides taken towards achievement of accessible infrastructure, considerable policy gaps and implementation lags still exist, especially in the Global South. There is a notable lack of accessible governance frameworks which combines legal provisions and accessibility to SDG integration. Further research efforts can aim at developing real-time monitoring systems or advancing the discourse on disability-inclusive infrastructure within the South.

References

[1] Antipova, A., Sultana, S., Hu, Y., & Rhudy Jr, J. P. (2020). *Accessibility and transportation equity. Sustainability, 12(9), 3611.*

[2] Benevenuto, R., & Caulfield, B. (2019*). Poverty and transport in the global south: An overview. Transport Policy, 79, 115-124.*

[3] Geurs, K. T., Niemeier, D., & Giannotti, M. (2021). *The uneven geography of the accessibility and environmental quality in the global north and south: Introduction to the special issue. Journal of Transport Geography, 97, 103216.*

[4] Venter, C., Mahendra, A., & Hidalgo, D. (2019). *From mobility to access for all: Expanding urban transportation choices in the global south. World Resources Institute, Washington, DC, 1-48.*

[5] Burns, S. D., & Warner, D. F. (2023). *Social inclusion among people with mobility limitations: Theorizing disability regimes in the global south. Studies in Comparative International Development, 58(3), 369-402.*