Assessing the Digital Divide

Understanding internet connectivity and digital literacy in cities and communities

A playbook for local, regional and national governments, policymakers, civil society and non-governmental organizations

UN HABITAT FOR A BETTER URBAN FUTURE





Assessing the Digital Divide Understanding internet connectivity and digital literacy in cities and communities

Copyright © United Nations Human Settlements Programme (UN-Habitat) All rights reserved United Nations Human Settlements Programme (UN-Habitat) P.O. Box 30030 00100 Nairobi GPO KENYA Tel: 254-020-7623120 (Central Office) www.unhabitat.org

HS/042/21E

Disclaimer. The designations employed and the presentation of material in this publication do not imply the expression of any opinion whatsoever on the part of the secretariat of the United Nations concerning the legal status of any county, territory, city or area or its authorities, or concerning the delimitation of its frontiers or boundaries regarding its economic system or degree of development. Excerpts may be reproduced without authorization, on condition that the source is indicated. Views expressed in this publication do not necessarily reflect those of the United Nations Human Settlements Programme, the United Nations and its member states.

Cover photo © ImagesofIndia / Shutterstock.com

Acknowledgements

Project supervisors: Katja Schaefer, Pontus Westerberg Principal author: Emily Royall Contributors: Daisy Jia Li, Livia Schaeffer Nonose, Isabel Wetzel Peer reviewers: Igor Calzada, Calum Handforth, Sahifa Imran, Leandry Nkuidje, Vidar Vasko, Sara Thabit, Leonard Fleck, Giuseppe Tesoriere Editing: Linnus Kimani, Pontus Westerberg Design and layout: Austin Ogola

Contents

Chapters

01

Introduction to the playbook

page 14

02

Moves towards establishing internet connectivity as a human right

page 18

03

The state of the digital divide: global trends & statistics

page 22

04

Why Digital Inclusion Matters

page 26

05

Who
Experiences
the Digital
Divide?

page 30

06

Key stakeholders in the digital divide terrain

page 34

07

Understanding the digital divide

page 38

80

Targets of a Digital Divide Assessment

page 44

09

Implementation, Tools and Methods

page 48

10

Capacity:
Partnerships
and resources
for city
governments

page 60

Digital HelpDesk

Introduction to the Digital Helpdesk	19
The Value of inclusion for digital governance	3
Data-sharing systems for digital cooperation	5

12 13 **Appendix** After the Conclusion assessment: and next steps **Identifying your** community's digital divide page 62 page 64 page 66

Boxes

BOX 9.1:	China's Prefectural Digital Divide	40
BOX 9.2:	Africa's Urban/Rural Broadband Infrastructure Divide	40
BOX 9.3:	Yosano, Japan's Transition to a Smart Green Village	40
BOX 9.4:	Cape Town's VPUU Community Network	41
BOX 9.5:	Pittsburgh's Every10nline Program	42
BOX 9.6:	Electronic Banking Empowers Women in India	42
BOX 10.1:	The Digital Divide in the city of Barcelona	47
BOX 11.1:	Surveying informality: Using machine learning to map informal settlements in Honduras	55
BOX 11.2:	San Antonio's digital divide in the context of Covid-19	57
BOX 11.3:	Mapping Britain's broadband connectivity	58
BOX 11.4:	Mapping Shreveport's digital divide with GPS data	58
BOX 11.5:	Building mapping infrastructure from scratch: City planning labs initiative in Denpasar, Indonesia	59
BOX 11.6:	Processed data: San Antonio's digital divide assessment report cards	59
Tables		
Table 1:	Popular survey tools used online and in the field for in-person surveys	53
Table 2:	Tools used for data visualization and analysis	57

Foreword



Ms. Maimunah Mohd Sharif

Under-Secretary-General and Executive Director, United Nations Human Settlements Programme (UN-Habitat)

As the agency with the mandate to coordinate urbanisation matters within the UN System, UN-Habitat often highlights that half the world's population - 3.5 billion people - now live in cities. The world is both urbanising and digitising at a rapid pace and we see that digital technologies have great potential to assist Member States in their efforts to achieve sustainable urban development. The 'smart city' as a concept is the lynchpin connecting these two global mega-trends. It can help Member States achieve positive transformative change by harnessing ICTs and digital technologies to improve urban efficiency, quality of life and sustainability.

Whilst digital technology can have enormous transformative potential for positive change, it can also perpetuate existing social and economic inequalities. In 2020, I saw many children struggle to get 'connected' including the students in my rural village with many missing out on their educational needs.

To address this yawning digital divide, the UN Secretary-General has made a strong case for human rights in digital spaces in his 2020 Roadmap for Digital Cooperation, which lays out key areas for action including universal connectivity, promoting digital public goods, and ensuring trust and security in the digital environment. Additionally, in the Connect 2030 Agenda, our colleagues at ITU commit to bridging the digital divide for an inclusive information society and enabling the provision of broadband access for all, leaving no one offline.

For UN-Habitat, the use of digital technologies in cities and by cities must be appropriate to ensure that the prosperity they bring is shared among urban residents, cities and regions. Ultimately, the deployment of technology needs to be grounded in the real needs of people. It should pay particular attention to underserved populations in order to address inequalities and bridge social and spatial divides. Our People-Centered Smart Cities flagship programme was launched in 2020 to provide strategic and technical advice to local, regional and national governments to enable them to take a strategic and proactive approach to digital transformation, while meaningfully engaging their residents and ensuring human rights in digital spaces.

We must address the elephant in the room. Peoplecentered smart cities cannot be built when so many remain outside of the digital world. The People-Centered Smart Cities Playbook Series aims to help cities and communities ensure that urban digital transformation works for the benefit of all, driving sustainability, inclusion and prosperity in the process. Each Playbook in the series represents one of five Pillars of People-Centered Smart City development: Community, Digital Equity, Infrastructure, Security and Capacity. Collectively, the playbooks outline key activities, provide recommended actions, and policy toolkits that provide actionable guidance for cities seeking to ensure a more equitable, inclusive and sustainable future for smart cities.



About UN-Habitat

The United Nations Human Settlements Programme (UN-Habitat) is the United Nations programme working towards a better urban future. Our mission is to promote socially and environmentally sustainable human settlements development and the achievement of adequate shelter for all. We work with partners to build inclusive, safe, resilient and sustainable cities and communities and promote urbanization as a positive transformative force for people and communities, reducing inequality, discrimination and poverty. UN-Habitat provides technical assistance, policy advice, knowledge and capacity building to national and local governments in over 90 countries.

UN-Habitat is coordinating the implementation of the UN System-Wide Strategy on Sustainable Urban Development¹ and in close coordination with national and local governments, the agency leads the monitoring of Sustainable Development Goal 11 (SDG11) on sustainable cities and communities as well as the New Urban Agenda.

UN-Habitat's approach to peoplecentered smart cities

Launched in 2020, UN-Habitat's flagship programme "People-Centered Smart Cities" acknowledges the transformative potential that digital technologies can have for sustainable urban development. Through the People-Centered Smart Cities flagship programme, UN-Habitat provides strategic and technical support on digital transformation to national, regional and local governments.

Digital transformation is now critical to meet the demands of sustainable urban development. In the past decade, internet connectivity has become a requisite for full participation in society, including access to education, affordable housing, and critical government services -- yet 3.7 billion people were offline in 20192. In recent years, digital innovations like civic technology, geographic information systems, the sharing economy, open data, and digital platforms have changed how people understand, manage and participate in cities. The COVID-19 pandemic introduced even greater urgency for local and national governments alike to bridge the digital divide especially for marginalized groups and informal settlement communities3, build more efficient and secure data management systems, and protect citizens' privacy when using digital services. These activities are the foundation for inclusive and resilient smart cities.



预览已结束,完整报告链接和二维码如下:

https://www.yunbaogao.cn/report/index/report?reportId=5 17277

