

An aerial photograph of a large public square in Indonesia, featuring a central fountain with a tall, dark, cylindrical monument. The square is surrounded by modern buildings and is filled with a large crowd of people, many of whom are holding colorful umbrellas. The scene is captured from a high angle, showing the layout of the square and the surrounding urban environment.

Digital Tools for Inclusive Data Collection in Indonesia

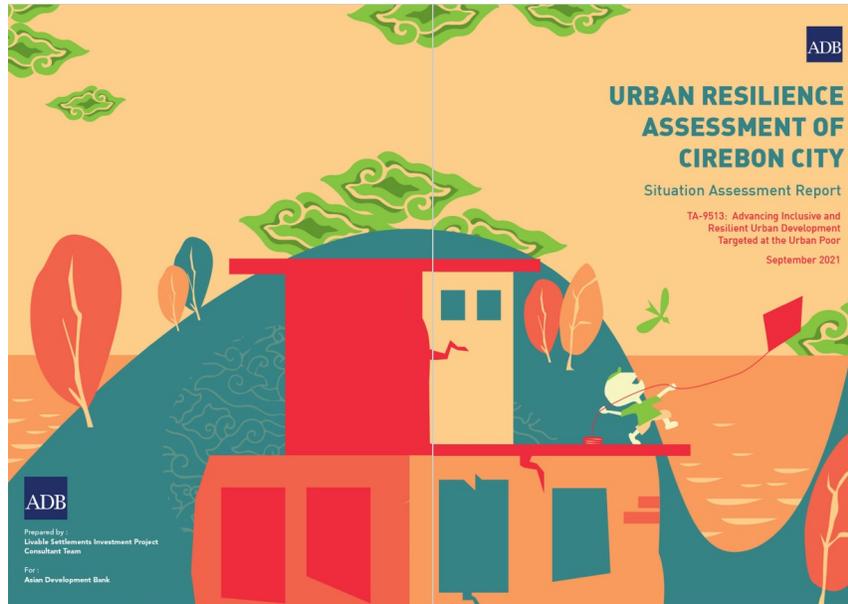
June 2022

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Project: Livability profiles for Pontianak & Semarang, Indonesia



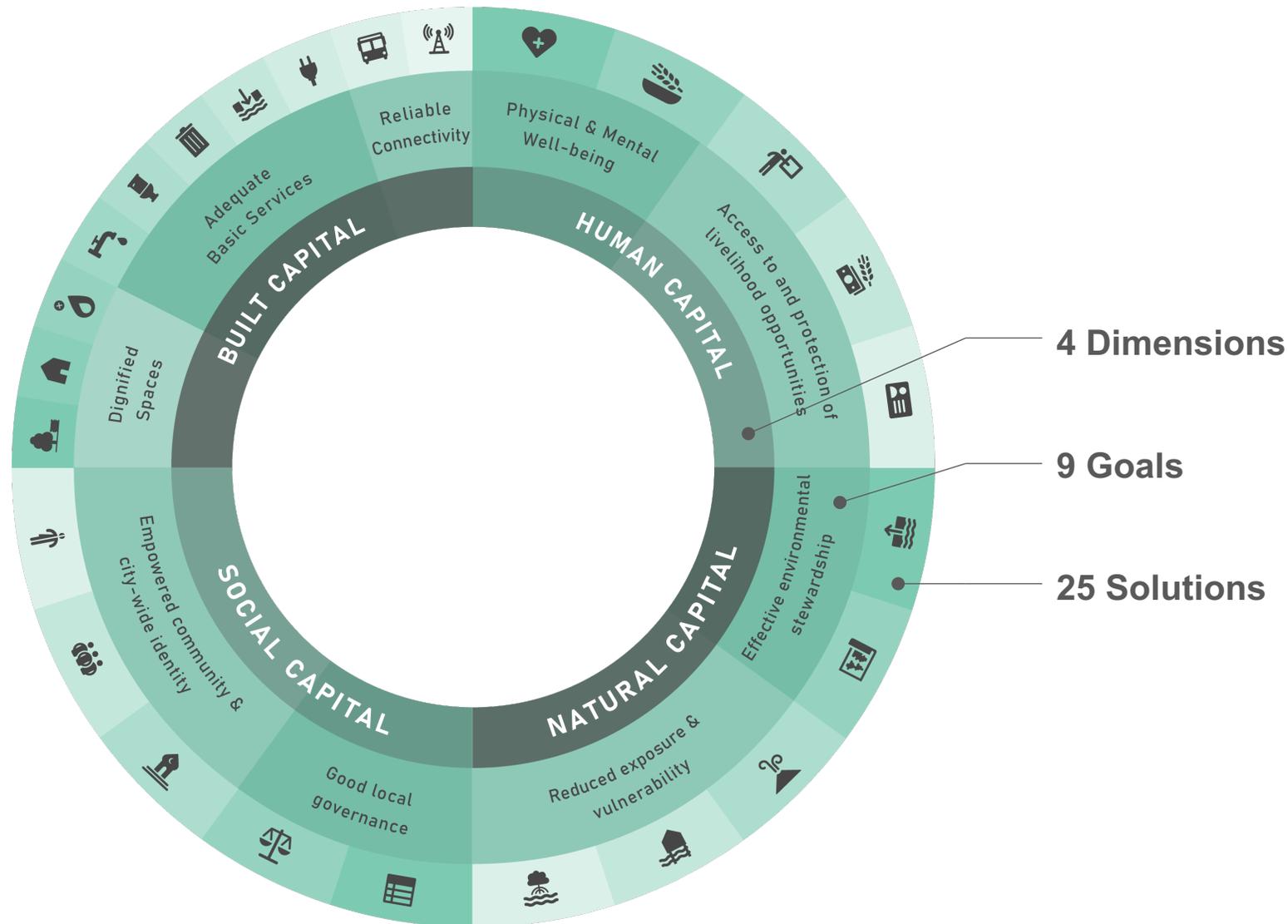
Infographic report



Web-based profile

- to support the broader livability agenda by providing a wider narrative for the urban development of both cities
- to sharpen the anticipated sanitation investments in both cities

Task: Rapid assessment survey of city livability



- Linked 25 solutions to each city government's **key performance indicators** for development planning
- Translated 25 solutions into **survey questions** that would assess how the city is performing in each area
- Idea is to ask city residents directly **about themselves and the city**

Challenge: Inclusive data collection



Who to survey?

- Need representative sample of city population
- No directory of all city residents



an interactive web-based cloud platform that can host geospatial information

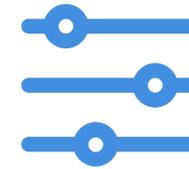


Where to find them?

- How to direct enumerators to selected participants?
- Some city residents may not have a formal address



suite of tools for field data collection for use in challenging environments



How to survey them?

- Interview or non-interview methods?
- Some city residents may not have digital access



SPADE: Who to survey?



Search by location name



Cluster sampling (multi-stage)*

1. Urban village level (*kelurahan*)



Gajah Mungkur

Kedungmundu

Jabungan



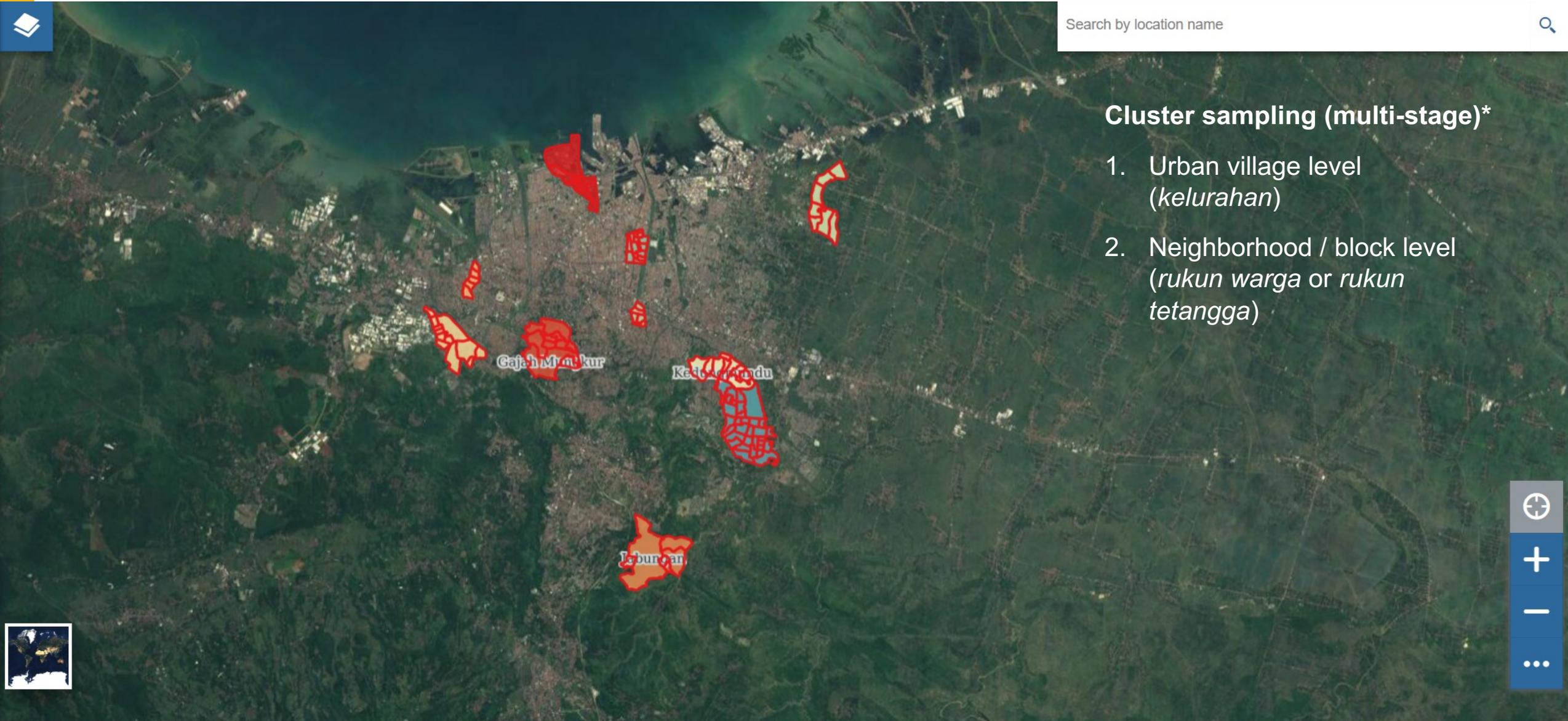
SPADE: Who to survey?

Search by location name

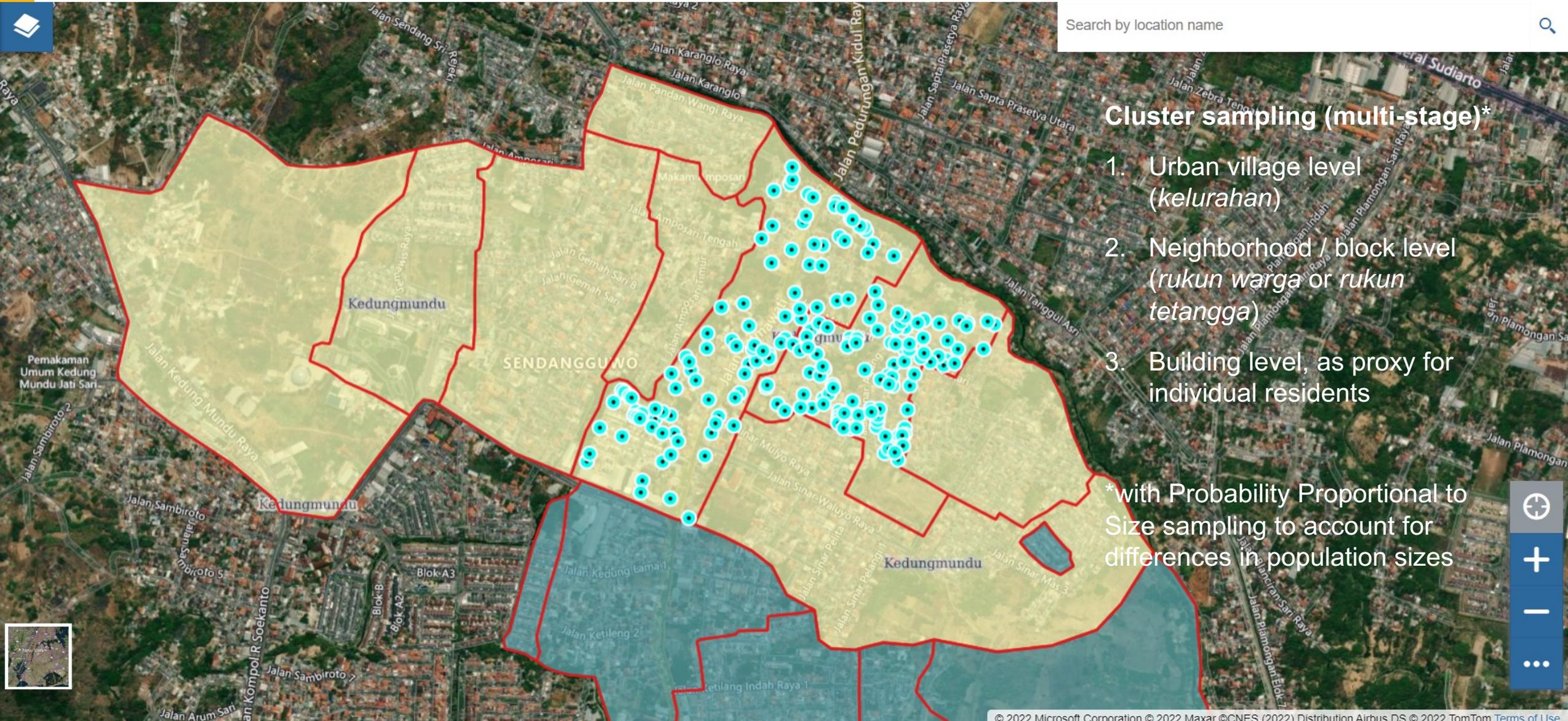


Cluster sampling (multi-stage)*

1. Urban village level (*kelurahan*)
2. Neighborhood / block level (*rukun warga* or *rukun tetangga*)



SPADE: Who to survey?



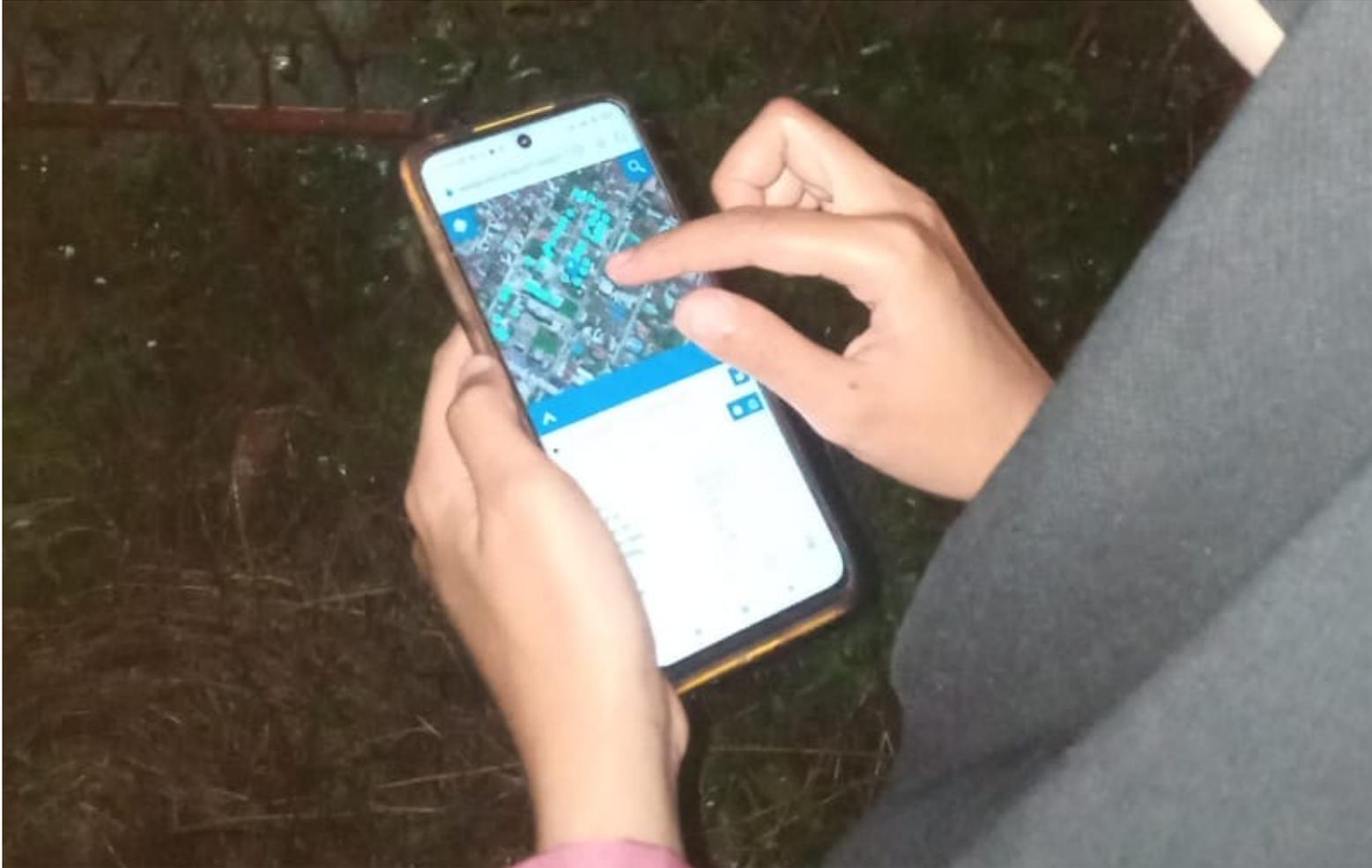
Search by location name

Cluster sampling (multi-stage)*

1. Urban village level (*kelurahan*)
2. Neighborhood / block level (*rukun warga* or *rukun tetangga*)
3. Building level, as proxy for individual residents

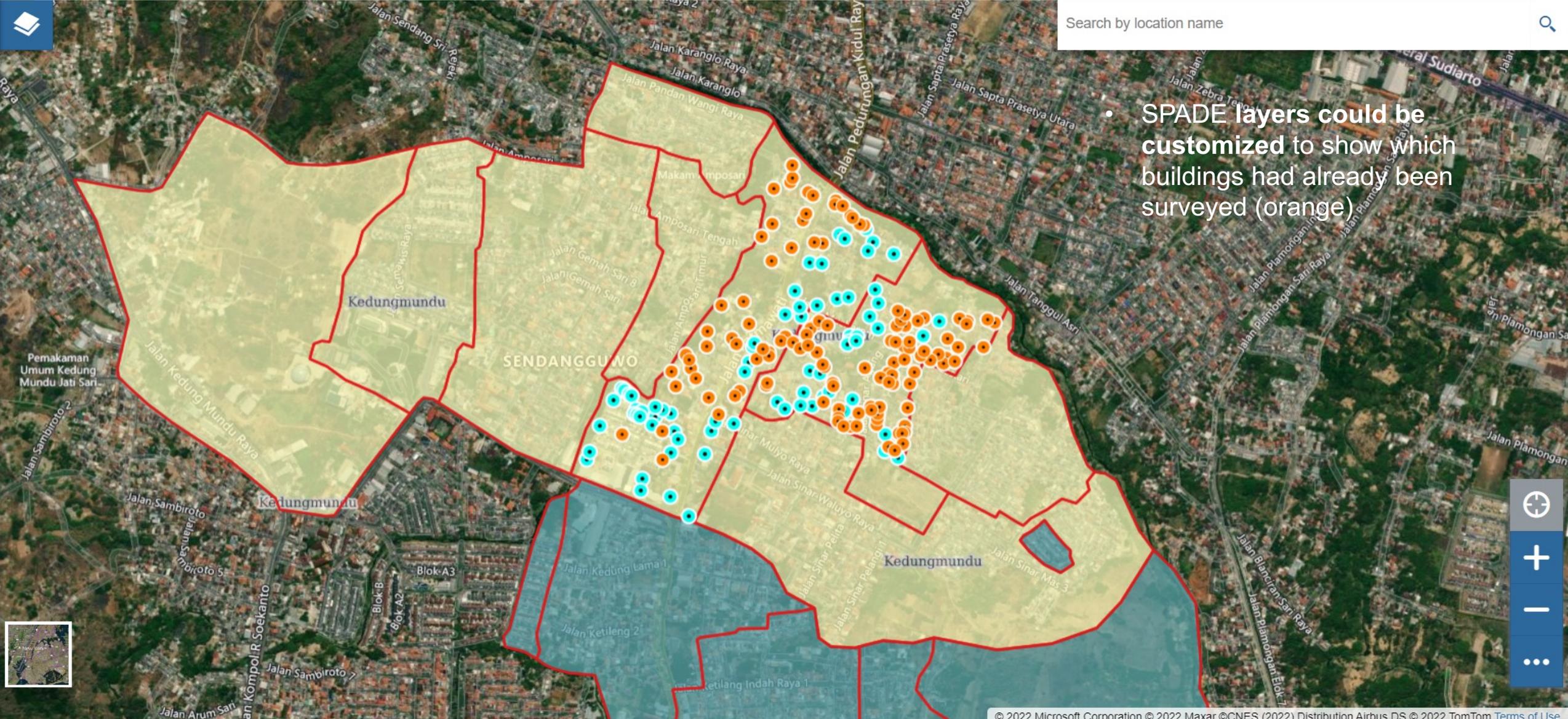
*with Probability Proportional to Size sampling to account for differences in population sizes

SPADE: Where to find selected participants?



- SPADE provided a web-based **map for enumerators** to navigate to the randomly selected buildings

SPADE: Where to find selected participants?



- SPADE layers could be customized to show which buildings had already been surveyed (orange)

KoBo Toolbox: How to survey selected participants?



- **Web-based survey** through KoBo Toolbox streamlines data collection and analysis
- KoBo Toolbox allows for data collection even with **unstable internet connection**
- In-person interview method allows enumerators to include **hard-to-reach populations**
- **SPADE built a custom plug-in for KoBo Toolbox** which allows for easy upload of geospatial data onto the platform

Results (as of Day 20)

	Pontianak City	Semarang City
Target sample size	1,066	1,067
Actual sample size	1,577	1,748



Thank You

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