

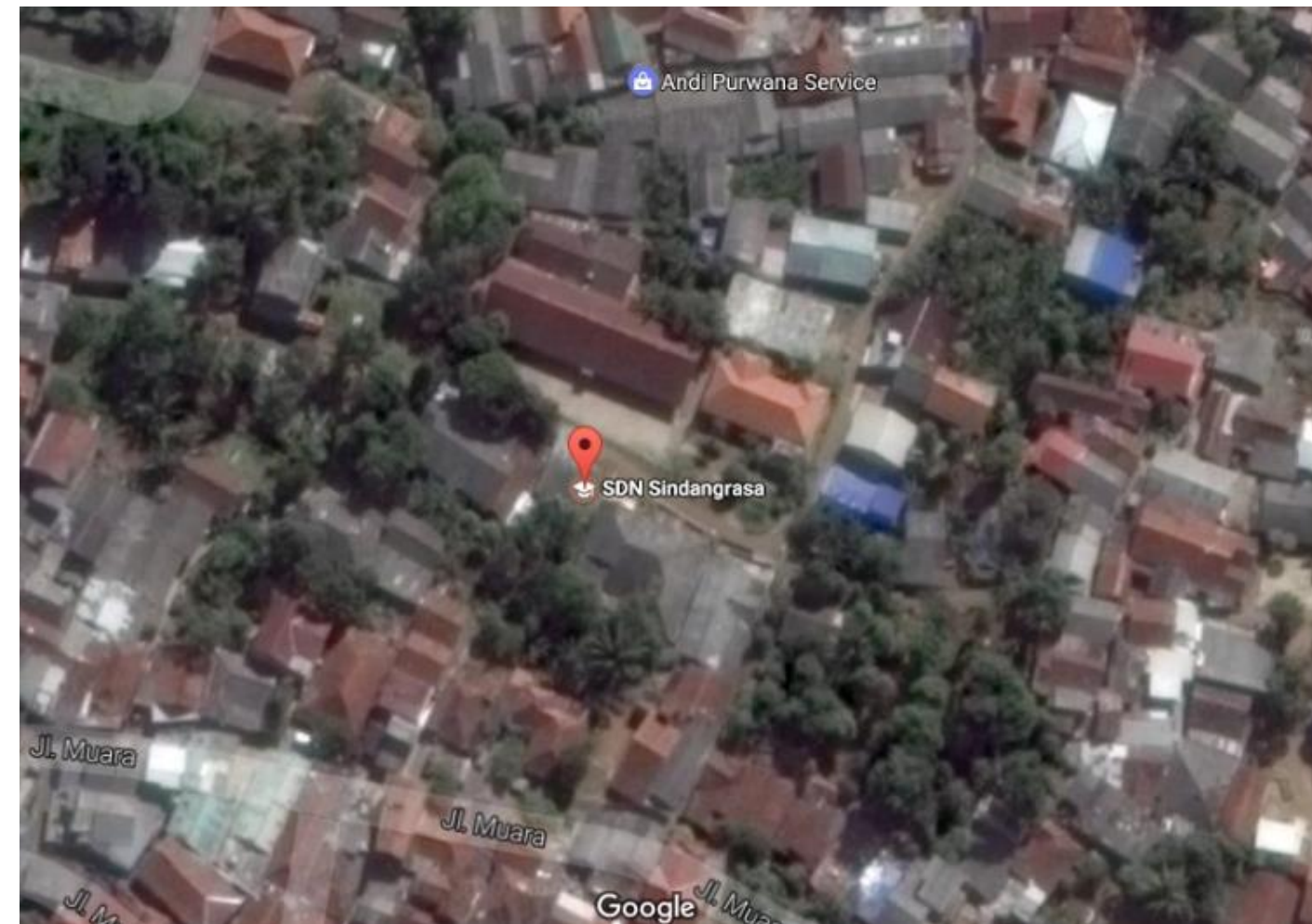
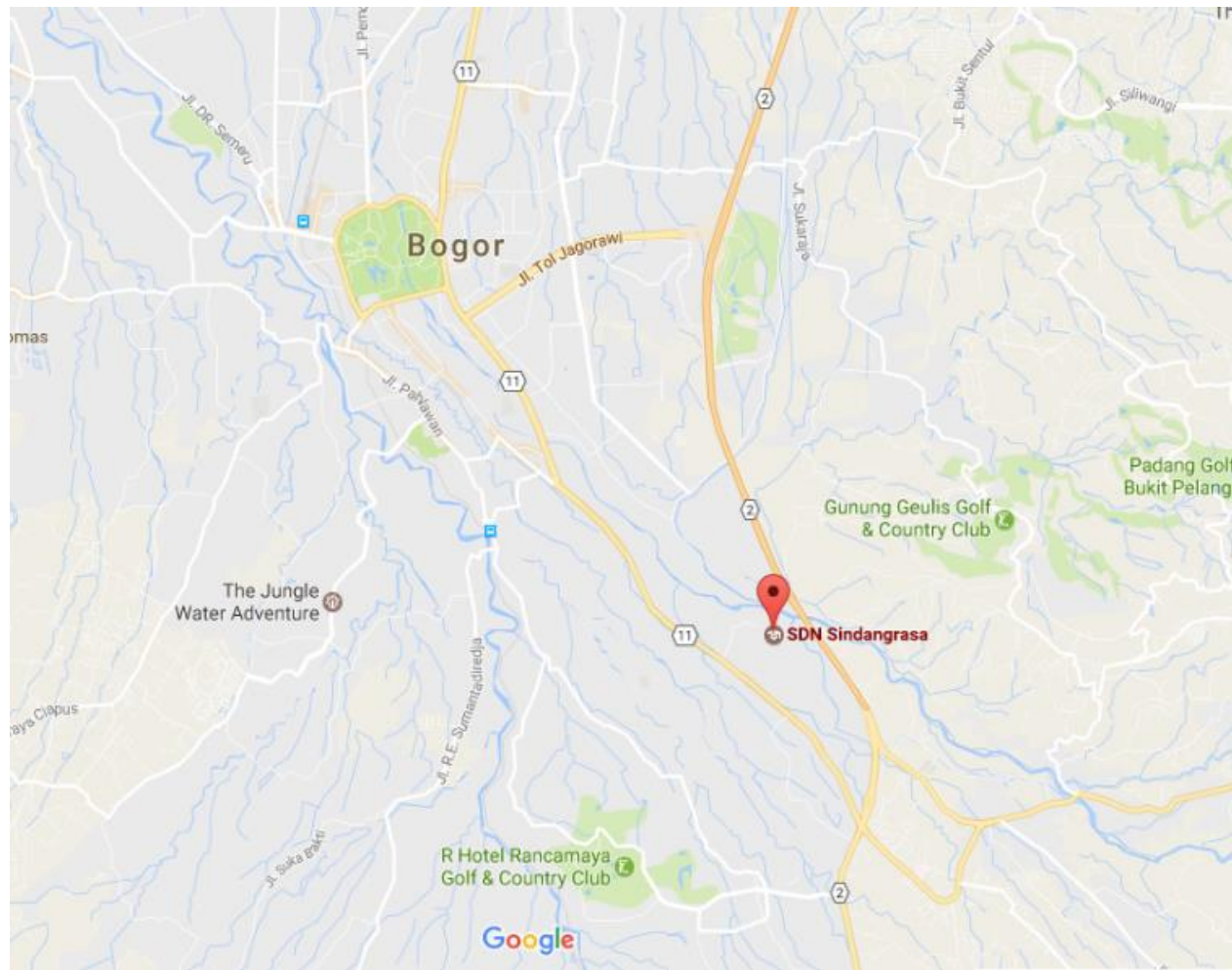
ECODRAINAGE SINDANGGRASA VILLAGE

Climate Adapted Disaster Risk Reduction Initiative



BAPPEDA of Bogor City Government

Problems : Bogor City of Rain



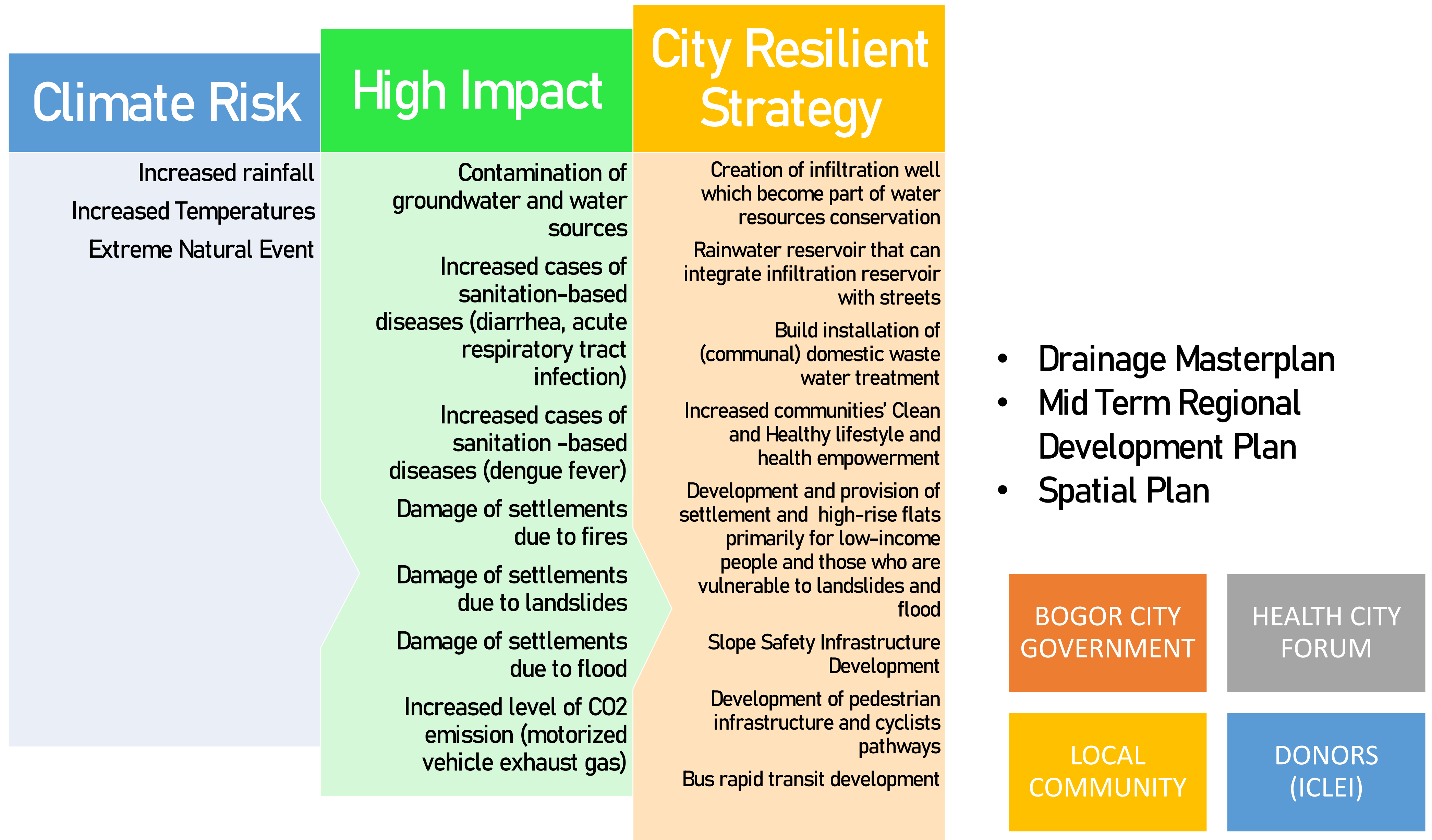
- The road is narrow, so lack of drainage
- Flood in rainy day, causing school and Puskesmas (community health centre) in that area could not operate
- The road is getting damage
- Drought in dry seasons

Located approximately 60 km south of Jakarta, the City of Bogor is like a pseudo capital for the extensive archipelago; it is the home of the current Indonesian President, who often works from this centre. It is a city where many people choose to live and then commute to work in Jakarta. Equally, many wealthy Javanese also have their holiday homes in or near the city. Bogor's population of over 1 million people live in an area of approximately 120 km², and it's a population that is rapidly growing, at a rate of approximately 1.5% per year. (Bogor City Government, 2016)

Home to the Bogor Botanical Gardens, the city sits in a basin between two volcanoes, Salak to the South of the city and Gunung Gede ("Big Mountain") to the South-East. Parts of the city have quite steep slopes so are sensitive to erosion. Named the "City of Rain", Bogor experiences high levels of precipitation, however, residents have noted that the predictability of the wet and dry seasons is diminishing. Not surprisingly, several rivers traverse the city and there are also several small lakes within the city boundaries. Located at a higher elevation than Jakarta, Bogor is generally cooler than the capital, but recent measurements suggest the urban area temperatures are becoming noticeably hotter.

Like many cities in Indonesia, the City of Bogor experiences localized flooding during heavy rain events, has areas of informal settlements that are built on highly vulnerable land, with issues of poor sanitation, decrease in availability of clean water and associated health impacts. Climate change is anticipated to exacerbate these issues, and city officers wish to work with their communities to adapt together.

Institutional Setting



Approach

Improve the design of road :

- Has drainage system
- Reducing water runoff
- Rainwater utilization
- Low cost and easy construction
- Low cost and easy maintenance

Planning

- CRS discussion by Climate Change Working Group the need of infrastructure
- City Health Forum propose the models
- The models is verified by Working Group and ICLEI-ACCORN Program

Preparation

- Socialization to village government, local organization, school surrounding the project



Implementation

- Construction process involve local organization
- Ceremony by Mayor

Maintenance

- Maintenance by local organization and school



Sustainable drainage : designed to reduce the potential impact of new and existing developments with respect to surface water drainage discharges

Output

Sustainable Neighbourhood Road Project (2016)

Length : 100 m

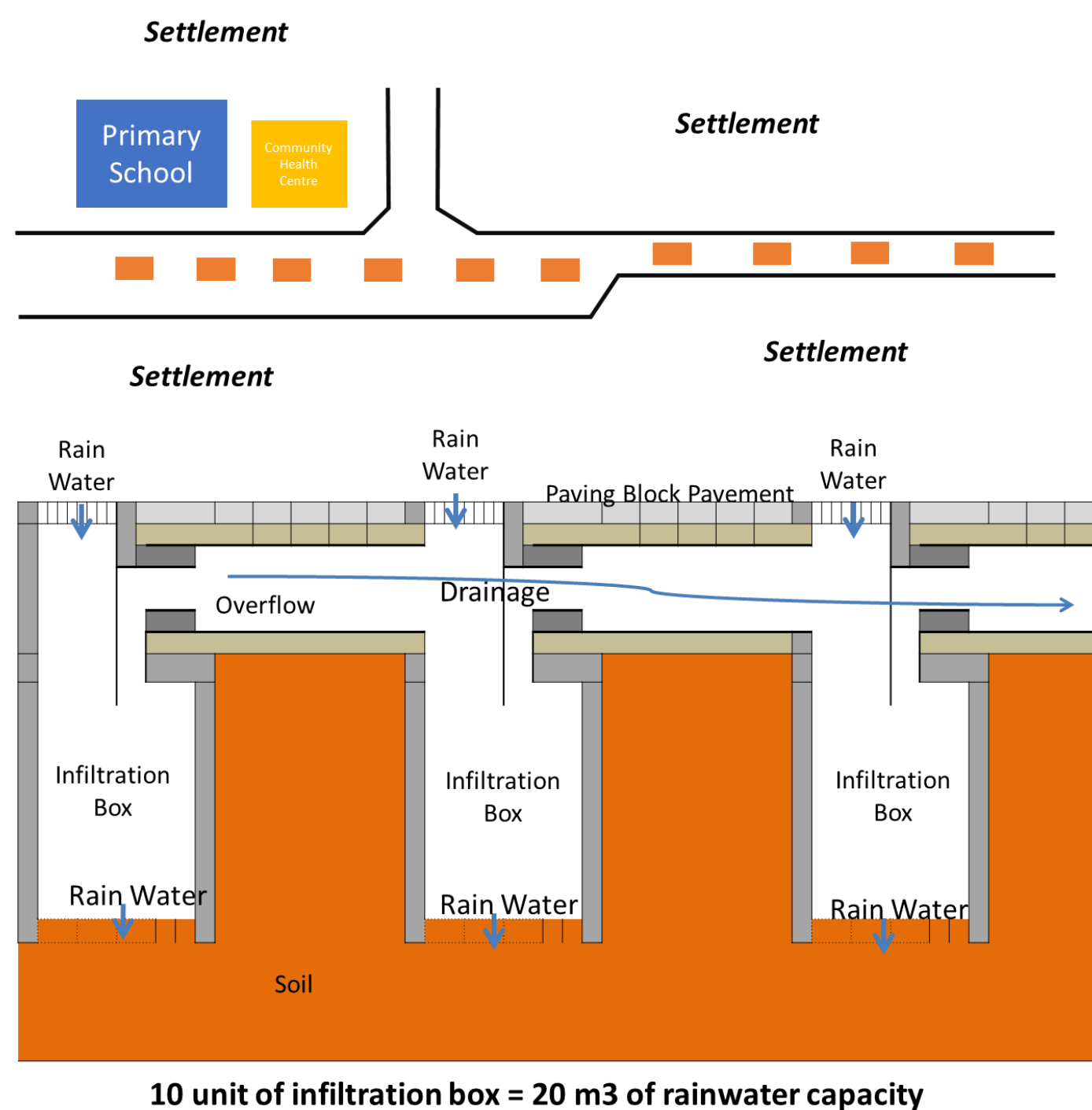
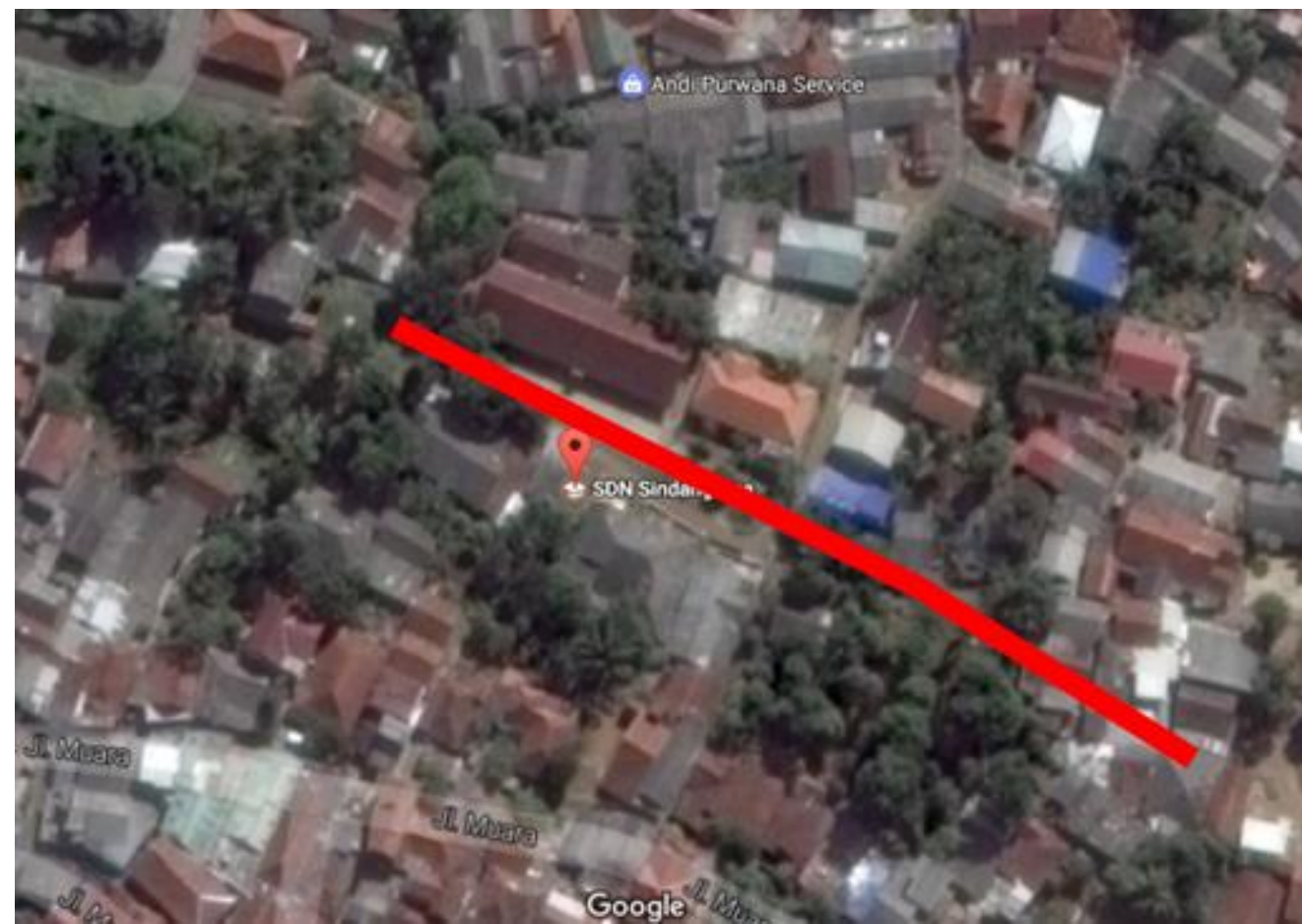
Value : USD1400

Design by City Health Forum (initiative)

Contractor : Community Self Help Group

Activities:

- Drainage system construction
- Infiltration box (1m x 1m x 2m) every 10 m of road length
- Change pavement of road, from flexible pavement to paving block pavement



Outcomes :

1. Reducing flood
2. Collecting the rainwater to recharge into the ground
3. Everlasting road quality
4. Higher accesibility (improve school, healthcare, economic activities)
5. Learning about nature conservation for community and student

Lesson Learned



<https://www.instagram.com/p/BKCn9z8h3Gb/>

1. Leadership and commitment of Mayor
2. Bogor city has strong collaboration and coordination among stakeholders
3. All actors are eager to learn together about adaptation to climate change in Bogor City
4. Initiative from community
5. The use of simple technology is more easily implemented and maintained by the community

Take advantage of organizational opportunities

The ICLEI-ACCORN project was originally not working directly with the Disaster Risk Agency. However, being attuned to the broader use of the work that was being done, Bogor City staff were able to tap into the ICLEI technical expertise to enhance their DRR Strategy, also introducing new techniques and information to a broader audience of city personnel.

Continue to build on knowledge foundations

In Indonesia, city personnel often move from one department to another, not staying for more than 6 – 12 months in one role. This can severely impact capacity building efforts. However, ongoing engagement with the city over several years and several programs helps to reinforce learnings, as well as engage a cross-section of staff over time. This enabled the ICLEI-ACCORN project to build on a base foundation and understanding of climate change.

Transfer

This case demonstrates the flexibility of the ICLEI-ACCORN process, and how its components can be used across different sectors within local government, to enable climate change adaptation to be embedded. The integration of climate considerations into the city's disaster risk reduction planning process and final strategy was enabled by the thoroughness of the ICLEI-ACCORN process.

- **Staff/Capacity:** City of Bogor staff had engaged with climate change issues for many years. This base of climate change understanding facilitated the process of integrating climate considerations into their DRR planning.
- **City Characteristics:** Successive Mayors of Bogor have been keen to progress climate change initiatives and have supported action by the city personnel. This support enables not only the plans to be developed, but also to be ratified, allocated budget and implemented.
- **Stakeholder Engagement:** Engagement across organizational departments was crucial to the climate change adaptation planning process, and the integration of climate considerations in the DRR strategy. Establishing the Working Group on Climate Change was a central mechanism for this engagement.

