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Geospatial information for a smarter life and environmental resilience



International
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of Geodesy, Cartography
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Responsive and Evidence-Based Community Driven Mapping Towards Disaster Resilient Communities: *A Case of Muntinlupa City, Philippines*

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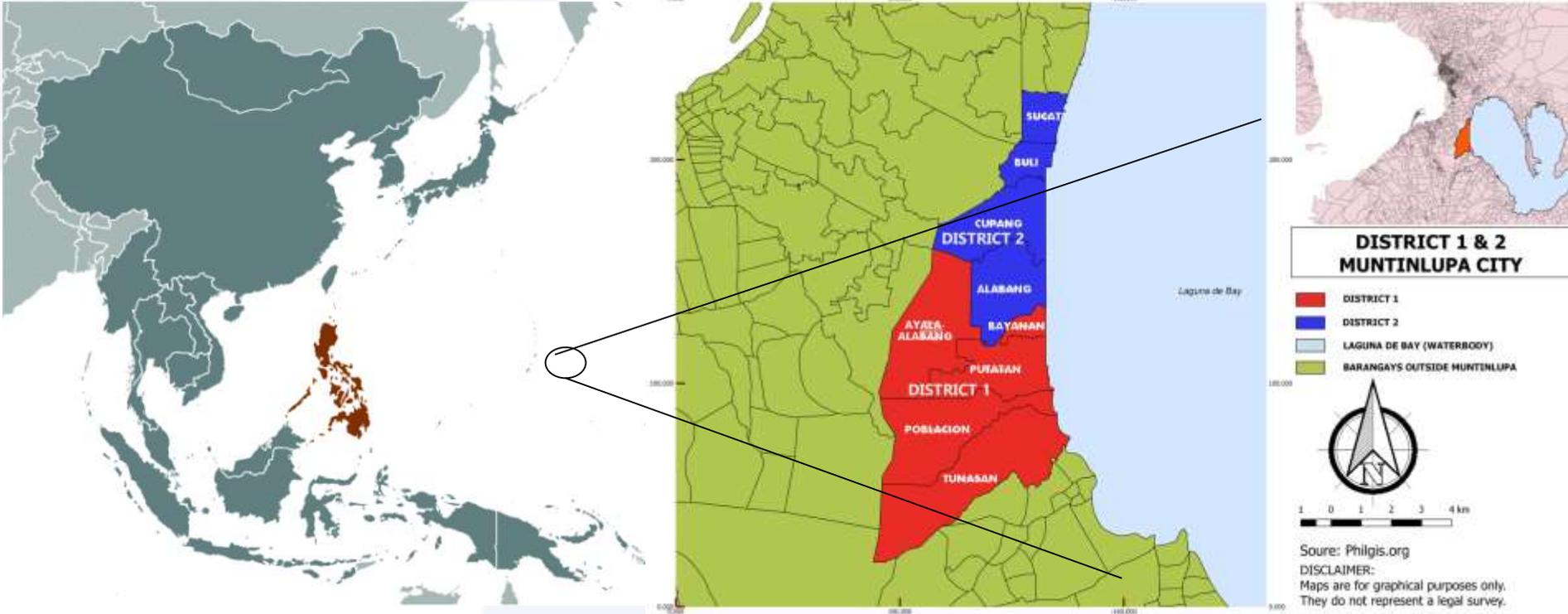
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BACKGROUND

Muntinlupa:

One of the 16 cities & 1 municipality in Metro Manila, Philippines



- Consists of 9 barangays distributed in 2 administrative districts
- Home to 504,509 individuals (2015 census) – over 118,000 were found to be living in informal settlements (CDA mapping project)

BACKGROUND

Informal settler families (ISFs)

- account to 23.5% of Metro Manila's total population, most of whom live in insecure lands: hazard-prone areas bereft of basic social services
- limited access to financial capital but often the source of cheap labor
- limited participation in government planning processes



BACKGROUND

Oplan Likas: A government initiative in 2011 that aimed to relocate 104,000 ISFs residing along danger zones in Metro Manila

Challenges:

- (1) high cost and availability of in-city and near off-city lands for resettlement
- (2) seemingly unattainable 1.7M housing backlog (2016)
- (3) non-inclusivity of the process

The magnitude of the problem renders the traditional project-based approach ineffectual. There is an urgent need to shift from project-based to programmatic approach to reach scale in a timely manner.

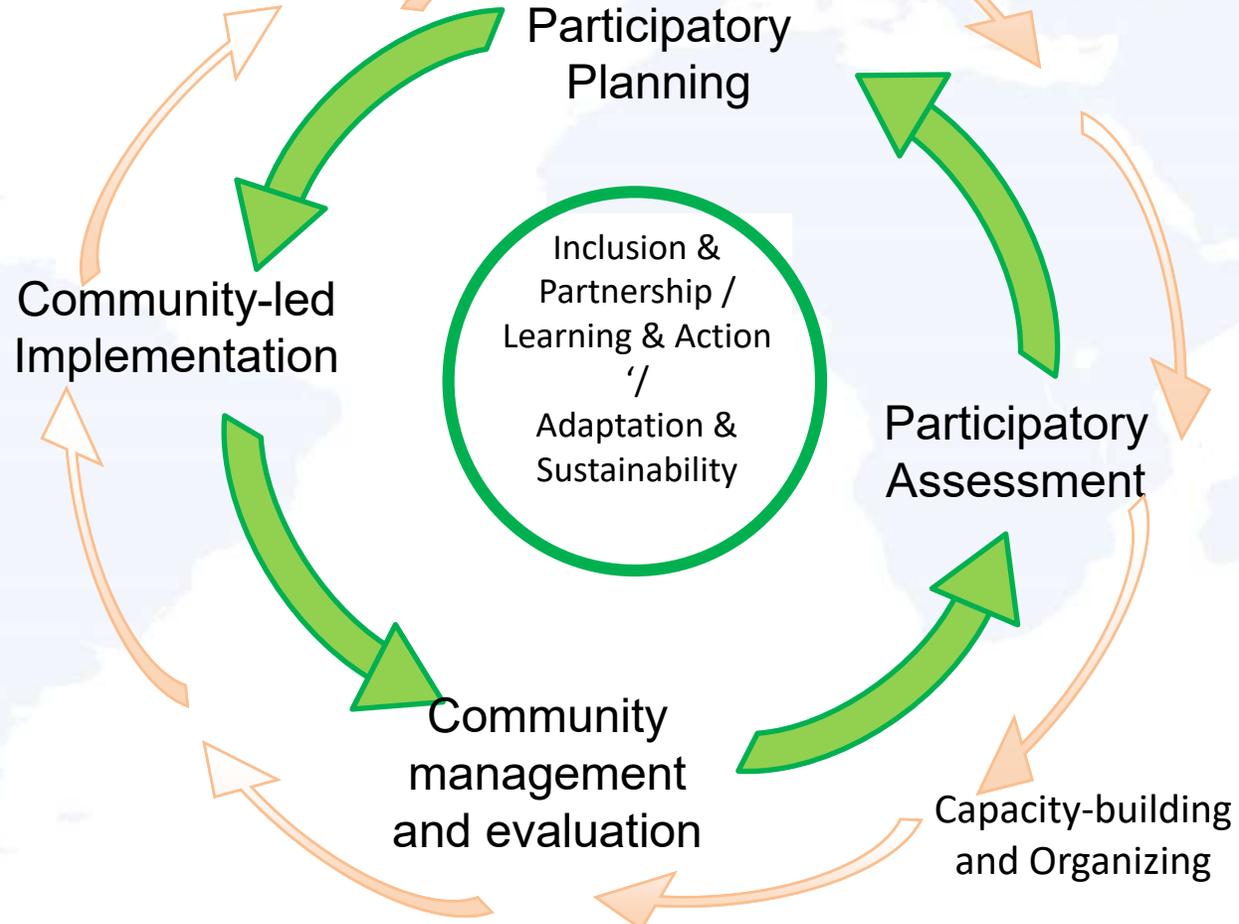
THE 2014 CITYWIDE DEVELOPMENT APPROACH (CDA)

- ✓ **Citywide in scope**
- ✓ **Decentralized: Participatory & community-led**
- ✓ **Demand-driven: Inclusive, multi-stakeholder partnership**
- ✓ **Combines statistical, spatial and narrative data gathering methods**
- ✓ **Participatory in nature**
- ✓ **Use of pro-poor and gender sensitive land tools**



THE CDA FRAMEWORK

Monitoring and Evaluation



THE CDA PROCESS: DATA COLLECTION



THE CDA PROCESS: DATA ANALYSIS AND VALIDATION



THE CDA PROCESS: PARTICIPATORY PLANNING



EMERGING TRENDS & OUTCOMES

✓ Community awareness, mobilization & empowerment

- Formation of 8 technical working groups (TWGs)
- Recognition by the city government
- Support of the barangay council (STDM Learning Hub)
- Institutional strengthening through integration of the HPFPI Savings Program



EMERGING TRENDS & OUTCOMES

✓ Collaborative planning at barangay/city-level

- Validation & presentation of mapping results to barangay councils and the City Local Housing Board (for inclusion into the 2020 Annual Investment Plan; and for the updating of the City Shelter Plan)
- Engagement with various city departments, e.g., Assessors, Engineering, Planning & Development, Urban Poor
- Mapping results used in homeowners association (HOA) registration, land acquisition processes, health & nutrition programs, among others



EMERGING TRENDS & OUTCOMES

✓ Collaborative planning at Barangay/City-level



EMERGING TRENDS & OUTCOMES

✓ Wider Coverage on policy advocacy

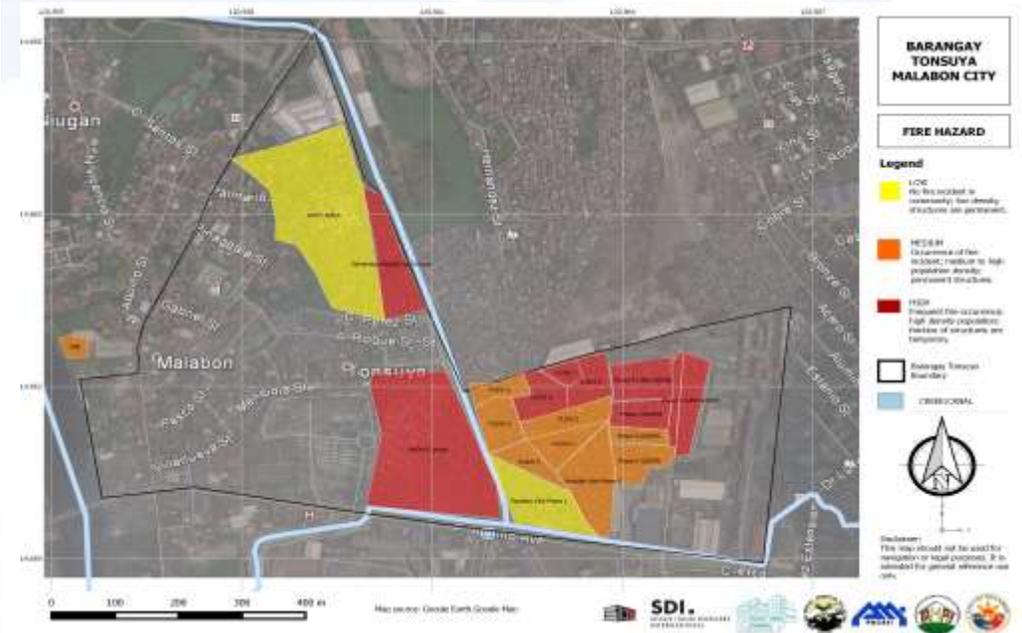
- Partnership with University of the Philippines Department of Geodetic Engineering (UPDGE) and Geodetic Engineers of the Philippines (GEP)
- Engagement with other local and international NGOs, government units (Malabon, Iloilo, Davao)



EMERGING TRENDS & OUTCOMES

Malabon City, Metro Manila:

Community mapping led to the organization of 141 HOAs; engagement with city government; identification of needs & vulnerabilities; facilitation of trainings on disaster risk reduction and management (DRRM)



EMERGING TRENDS & OUTCOMES

Iloilo City: Pilot mapping of a HOA within a central business district; tripartite MOA with the government, a local university, and the HPFPI/TAMPEI/PACSII; proposal to institutionalize community mapping through a city-level ordinance (project shelved due to political conflicts)



EMERGING TRENDS & OUTCOMES

Talisay City: Conduct of a citywide heritage mapping workshop (project shelved due to political conflicts)



EMERGING TRENDS & OUTCOMES

Davao City: Mapping of 9 coastal Barangays affected by a government railroad project; engagement with a national key shelter agency; MOA with a local university



EMERGING TRENDS & OUTCOMES

Naic / Tanay / Pasay: Mapping as a mobilization tool in addressing child-centered issues on resettlement



TRENDS & OUTCOMES

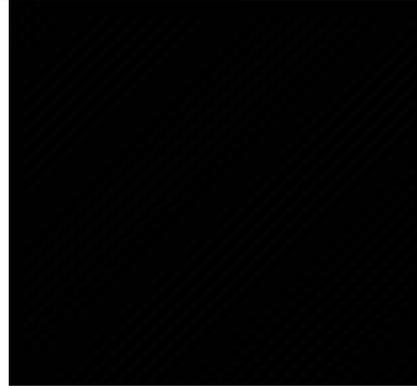
International level: Sharing of experiences in regional learning exchanges, e.g., UN-Habitat World Urban Forum (February 2018) in Kuala Lumpur and Asian Coalition for Housing Rights (ACHR) Workshop in Metro Manila (October 2018)



COMMUNITY MAPPING



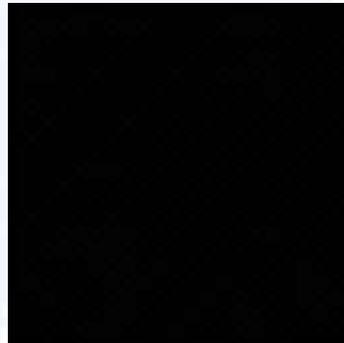
Establishing initial commitments



Transfer of knowledge



Mapping fieldwork



Data validation & analysis



Planning & negotiation

LESSONS LEARNT

- Process acts as a **mobilizing platform** and an **empowerment tool**
- *However, no city or area has exactly the same context*
- **Localization** of the process is encouraged and is highly dependent on the following:
 - ✓ openness and readiness of communities to the people-driven process,
 - ✓ existing political climate,
 - ✓ support or presence of other networks
 - ✓ use and application of innovative, affordable and flexible tools

CONCLUSION

- The case of Muntinlupa presents a concrete example of genuine **participatory and bottom-up planning** of cities that can serve as an alternative to the usual top-down planning of cities.
- With flexible tools like STDM, enumeration and mapping can easily be adopted for various purposes and contexts.
- Community driven approaches, with support from partners and availability of appropriate tools, demonstrate the **possibilities of scaling up** participatory data gathering methodologies to inform evidence-based, inclusive and sustainable planning, tenure security improvement and for other development purposes

THANK YOU



YOU

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