### Launch of the Global Model for Earthquake Social Vulnerability and Resilience

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# Participatory Evaluation of Earthquake Risk and Resilience in Lalitpur Sub Metropolitan City, Nepal

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## Participatory Evaluation of ERR in Lalitpur Sub Metropolitan City

#### Objective:

Test and Finalize Multi-level City Resilience Scorecard Evaluation System

#### Outcome:

Preliminary Evaluation of Earthquake Risk Resilience of each ward and the municipality

#### Impact:

- Understand and internalize the existing vulnerabilities
- Motivated municipal stakeholders to fulfill identified gaps
- Shift from isolated sporadic interventions to Municipal Strategic DRR Plan



## Lalitpur Metropolitan City

## One of the major cities in Kathmandu Valley

Number of wards: 29

Population:

• Male: 145,924

• Female: 138,998

Total 284,922, CBS 2011

Households: 70,256

Area: 36.12 Sq. Km

Population Density: 7,888/sq km

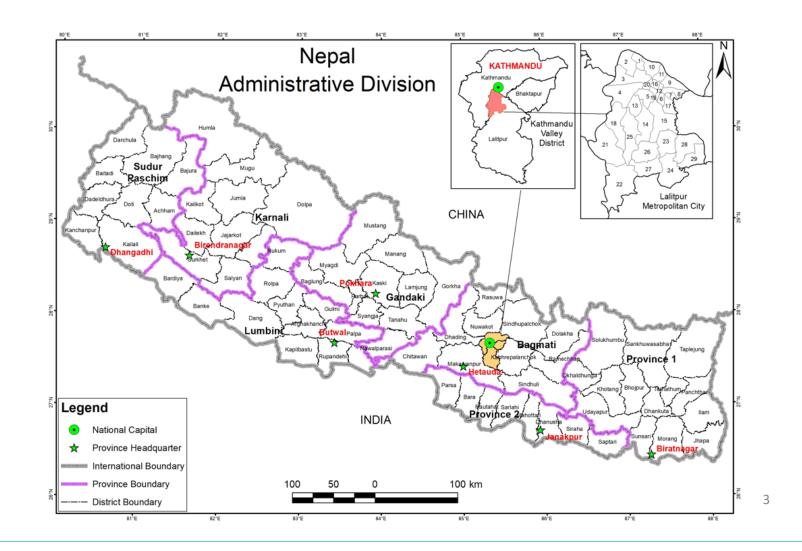
Major Hazards:

Fire

Earthquake

Flood

Road Accidents





## Key Dimensions of Urban Resilience

#### **HFA Strategic Goals of Disaster Risk Reduction** Systemic integration of risk reduction apporaches Mainstreaming disaster risk Development and strengthening of institutions, policies and into critical services and infrastructure, and reduction into development capacities disaster risk reduction. emergency preparedness, response and recovery. policies and planning. **Key Dimensions of Urban Resilience** Critical Services Emergency Planning, Awareness and **Social Capacity** Legal & Institutional and Public Preparedness, Regulation and Advocacy Arrangements Infrastructural Response and Mainstreaming Resiliency Recovery **Risk Mitigation Essential 1 Essential 5** Essential 9 **Essential 3** Essential 7 Put in place Prepare risk Assess the safety of Provide education Install early warning organisation and all schools and systems and emergency assessments. programms and coordination. health facilities. trainings on DRR. management capacities. **Essential 2** Essential 4 Essential 6 **Essential 8** Essential 10 Assign a Apply and enforce realistic, Put peoples needs Invest and Protect ecosystems and

risk-compliant building

regulations and land use

planning principles.



budget for

DRR.

maintain critical

infrastructure.

natural buffers, adapt to

climate change.

at the center of

reconstruction.

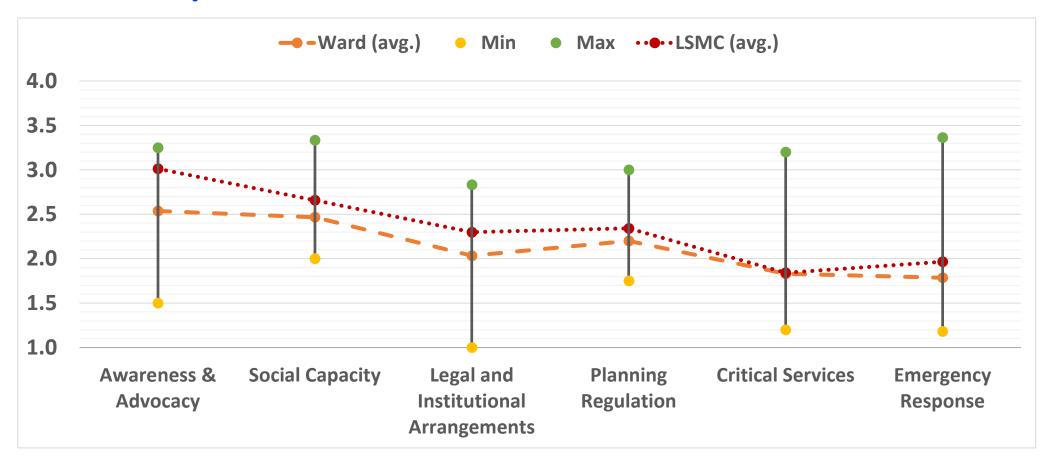
## PEERR Workshop at Lalitpur





2014/03/26

## Comparision of Wards and LSMC Scores



Priorities for the wards based on the gaps iedentified by the results of PEERR

1. Awareness and Advocacy

2. Legal and Institutional Arrangements,

3. Emergency Response



## DRR Activities after the PEERR Workshop

#### Awareness and Advocacy

- Community, ward and municipal level awareness programs on DRR
- Orientation programs at schools

#### Scenario and Planning

Ward Level Earthquake Scenarios for Ward 16 and 21

#### Legal and Institutional Arrangements

- Formaton of DRMC in all 29 wards (as per new federal structure)
- Setup Emergency Fund

Ward level Earthquake Scenario Development Workshop







## DRR Activities after the PEERR Workshop

#### **Emergency Response and Preparedness**

- Local Search and Rescue Training at LMC 16
- SAR training and SAR tools and equipment placed at all 29 wards 2018
- Empowering Women Through Disaster Risk Reduction 2017-18 (IHRR)
- Women led Community Fire Response system at LMC 21
- Campaign for Non-Structural Mitigation June 2015-June 2016, (Shapla Neer)
- CBDRM Jan 2016-Feb 2018 Ward 16 and 21 (GGS, Kyoto University)





## Towards sustainable DRR Systems

- Coverage 29 wards with additional areas based on new federal structure
- Elected Leadership since 2017
  - Locally lead DRR
- DRMCs formed and active in all wards
- Disaster Fund Created
- Annual plan includes activities for DRR in all 29 wards
- NSET appointed as DRM Advisor for LMC



## Replication of Assessment Methodology

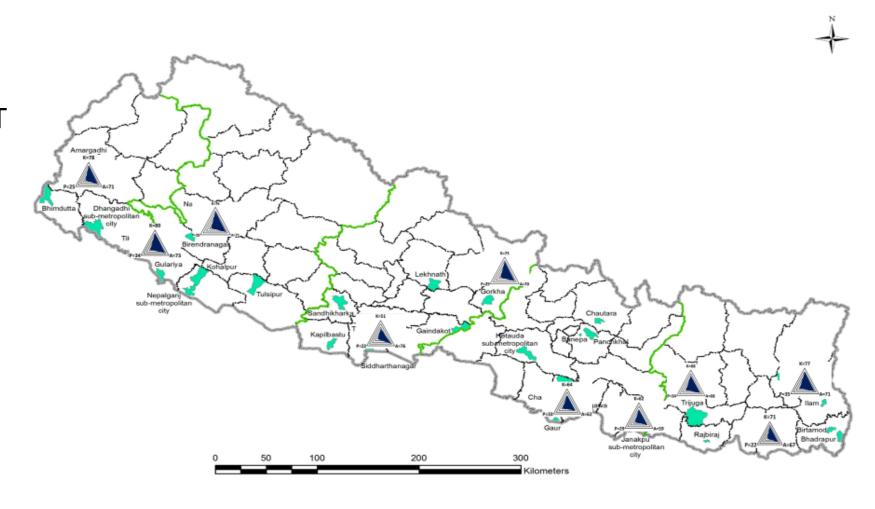
#### NSET replicated the assessment methodology and tools

- Local Government Self Assessment Tool (LGSAT) for Disaster Governance in 30 Municipalities of Nepal
- Assessment of Knowledge, Attitude and Practice (KAP) on DRR for 10 Municipalities
- Assessment of Building Code Compliance in Municipalities
- Risk Perception Survey in local communities

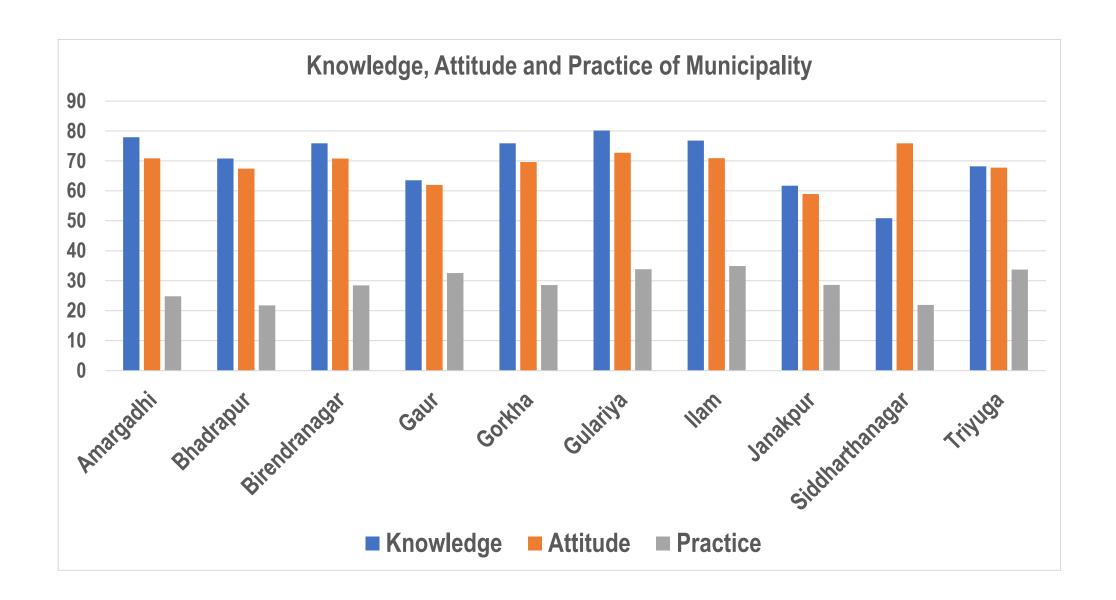


## DRR Baseline of 30 municipalities

- DRR Baseline using LGSAT in 30 municipalities (highlighted with green color)
- KAP of 10 municipalities (shaded triangles)









## Way Forward

- Scorecard method was found to be participatory, interesting and eyeopening
  - Successful in enhance engagement of local leaders
- 2nd PEERR Workshop for review of DRM status in Lalitpur
  - Tentatively March 2021
- NSET plans to continue assessment methodology in other municipalities
- Need to integrate into municipal system for periodic assessment to monitor and review progress



## Thank you

