



# The Disaster Riskscape Across Asia-Pacific

PATHWAYS FOR RESILIENCE,  
INCLUSION AND EMPOWERMENT

Asia-Pacific Disaster Report 2019

**BOX 4-6 The Tamil Nadu system for multi-hazard potential impact assessment and emergency response tracking (TNSMART) engages communities**

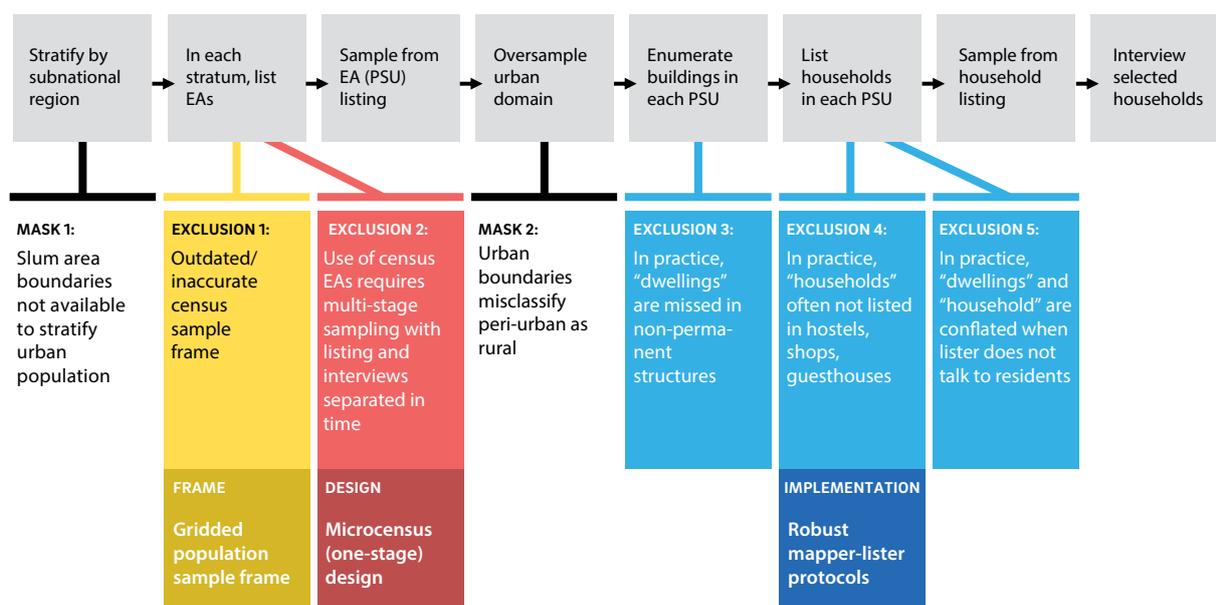
In India, the Tamil Nadu State Disaster Management Authority uses TNSMART, a web-GIS-based decision support system for operations and for communicating to communities.<sup>a</sup> The data sources include geospatial systems, remote sensing, satellite imageries, UAV, Light Detection and Ranging (LIDAR), and telemetry.<sup>b</sup>

The TNSMART web application classifies areas in terms of risk: very high, high, medium and low. The system prepares customized advisories for at-risk communities along with do's and don'ts. The TNSMART mobile application can then send alerts and information about mitigation measures while also receiving messages from users. TNSMART also provides forecast-based impact information especially for agriculture sector.

TNSMART was used, for example, during 2018 Northeast monsoon, particularly for cyclone Gaja. During the preparedness phase, TNSMART helped its 13,000 registered users understand the risk and also communicated this to field-level functionaries.<sup>c</sup> Distress messages were received from the general public in the State Control Center through the TNSMART app and forwarded to concerned officers/ departments for action. TNSMART helped disaster managers provide location-based services while responding to communities at risk. This saved numerous lives due to timely evacuation.

a Tamil Nadu State Disaster Management Authority and RIMES (2019).  
 b Ibid.  
 c Ibid.  
 d Ibid.

**FIGURE 4-12 Unintended exclusion of the poorest in a typical household survey**



Source: Based on Dana Thomson and R. Bhattarai, 2018.  
 Note: EA = enumeration area PSU = primary sampling units (s).

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