



Smart City Integration for Building Urban Resilience in Lao PDR



Urbanization, smart city and resilience

Urbanization challenges



Smart Technology for Resilience



Smart City Concepts



Resilience in Smart City Planning

Some facts about Laos



7.43M

POPULATION¹



37%

URBAN POPULATION¹



3.2%

URBAN POPULATION GROWTH¹



2026

EXPECTED YEAR TO GRADUATE
FROM LDC STATUS²



2,566 USD

GDP PER CAPITA¹



2.5%

ANNUAL GDP GROWTH¹



0.607

HUMAN DEVELOPMENT INDEX³



68.5

LIFE EXPECTANCY⁴

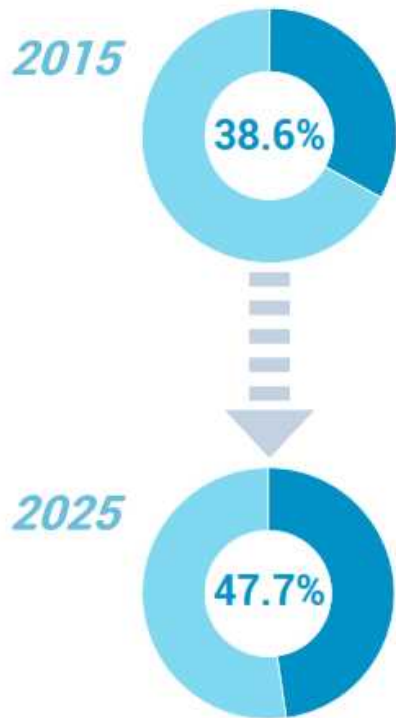


81.7%

PERCENT OF 15-64 YEAR OLDS
IN LABOR FORCE⁵



URBANIZATION RATE

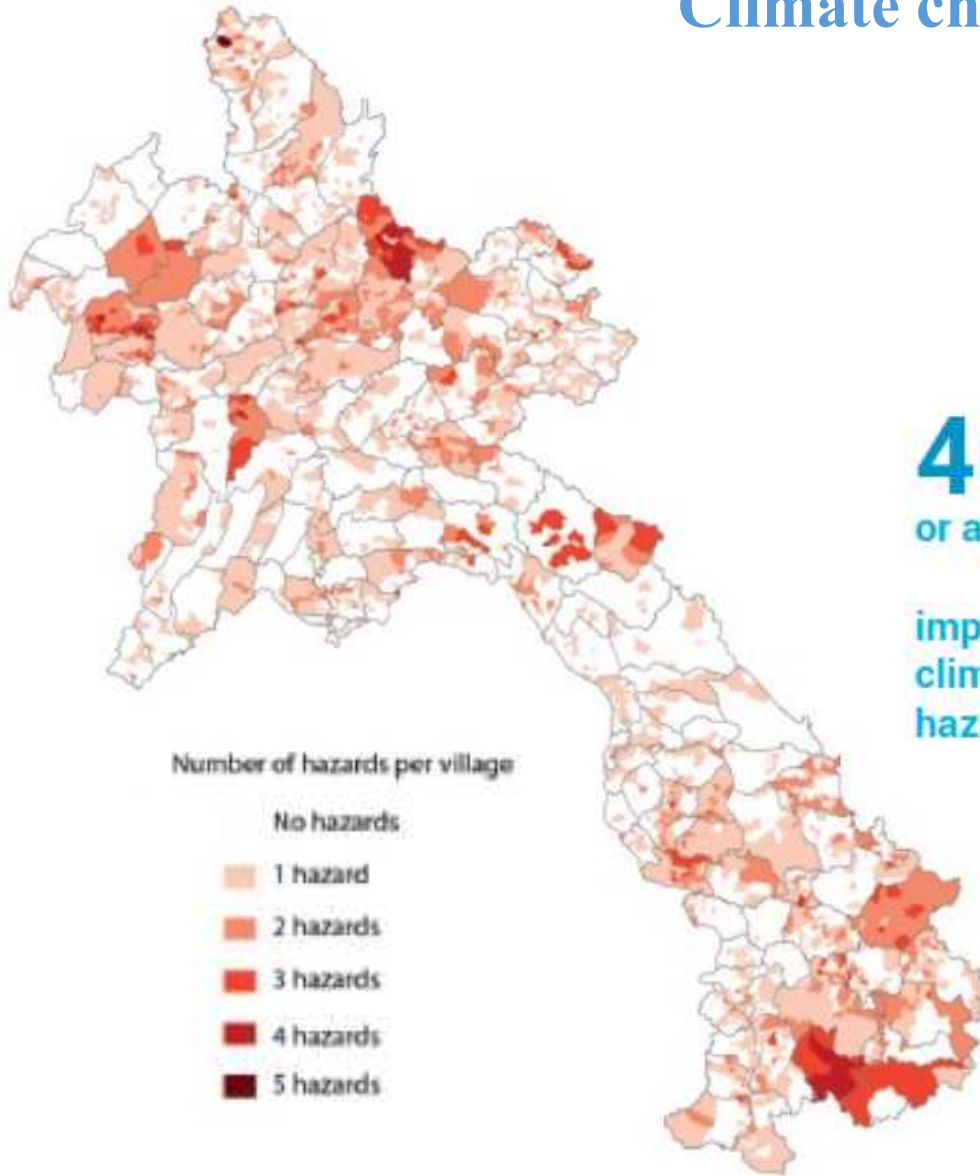


Urbanization in Laos

	Rate of change of the urban pop.(%)			Level of urbanization (%)			
	1995-2005	2005-2015	1995-2015	1995	2005	2015	2025
South-Eastern Asia	3.21	2.63	2.92	34.6	41.3	47.6	53.3
Brunei Darussalam	2.89	2.02	2.45	68.6	73.5	77.2	79.7
Cambodia	3.18	2.38	2.78	17.3	19.2	20.7	23.6
Indonesia	3.87	2.87	3.37	36.1	45.9	53.7	60.3
Lao People's Democratic Republic	6.28	5.36	5.82	17.4	27.4	38.6	47.7
Malaysia	4.00	2.86	3.43	55.7	66.6	74.7	80.1
Myanmar	2.27	2.41	2.34	25.5	28.9	34.1	39.8
Philippines	1.74	1.22	1.48	48.3	46.6	44.4	44.9
Singapore	2.55	2.23	2.39	100.0	100.0	100.0	100.0
Thailand	3.20	3.22	3.21	30.3	37.5	50.4	60.4
Timor-Leste	2.94	3.83	3.38	22.5	26.3	32.8	38.6
Viet Nam	2.18	3.03	3.10	22.2	27.3	33.6	39.9

UN-Habitat, World Cities Report 2016: Urbanization and Development. Emerging Futures, Annex I.

Climate change impacts in Laos



46% of settlements
or around **3M** people
impacted by one or more
climate change related
hazard



600K people
affected by two tropical
cyclones in 2018, causing
the country its most costly
floods in a decade

Common Urban Issues Related to Resilience and Vulnerability



Urban Sprawl



Traffic Congestion



Urban Flood



Fire Hazard



Pollution



Solid Waste



Our focuses



Green Growth: Policies and mechanisms guiding green growth and sustainable development have been a focal point. The National Urban Development Strategy for 2030 is being updated to incorporate trends such as climate resilience and the smart city concept.

Inclusive Urban Management: Inclusive Urban Management Platform has been established. The Lao National Urban Forum has been launched and rolling to provide a stage for all stakeholders to collaborate, shaping effective future urban and town development at all level



Capitalizing on Smart City Concept: Recognizing the potential of digital disruption, we are exploring smart city concepts, utilizing smart solutions to address urban challenges. Laos' first smart city development strategy is being developed, paving the way for efficient city planning and management, ensuring citizen livability and improved standards of living.

Data-driven decision making: Platforms promoting evidence-based and digitalization.



Strategic Urban Investments: Significant investments have been made in urban development initiatives, particularly in cities and districts with high economic and social impact along vital economic corridors. These investments have significantly contributed to socioeconomic growth and resilient urbanization.

Way forwards for building urban resilience in Laos

- 1. Spatial and Land Use Planning**
- 2. Urban Risk Mapping**
- 3. City Resilience Index Platform**
- 4. Urban Infrastructure Database**
- 5. Develop Mobile Application for Urban Disaster Warning and Urban Mobility**
- 6. Urban Resilience Education Through an Online Portal**
- 7. Nature Based Solution + Technology for Urban Environmental Management**