Safer Cities, Stronger Communities: UN-Habitat's Approach

International Training Workshop on Smart Cities in Asia and the Pacific

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OUTLINE

I. Regional trends and challenges

II. DRR Principles in Cities

III. UN-Habitat Build Back Better project in Asia and the Pacific Region

Asia Pacific Regional Trends

- Rapid Urbanization and ongoing housing crisis:

✓ Urban population expected to grow from 2.5 billion in 2023 to 3.5 billion in 2050.

✓ Region with largest number of people in slums (650 million in 2018)

✓ The rapid urbanization leads to insufficient infrastructure and services, leading to inadequate housing and a rise in slum dwellers.

- Climate Change, Environmental Degradation and Natural Disaster:

✓ The region is responsible for over 55 per cent of global greenhouse gas emissions, with more than 70 per cent of those emissions generated in urban areas.

✓ 1 billion urban residents may face multiple high or extreme hazards in the region by 2030.

✓ In 2023, Asia remained the world's most disaster-hit region with **over 140 disasters**, affecting over **64 million people and leading to over 7,000 deaths**.

Asia Pacific Regional Trends

- **Social Inequality:**

✓ Economic disparities are pronounced, with an estimated 233 million people in the region live on less than $1.90 a day, below the international extreme poverty line.

✓ This economic divide limits access to essential services and contributes to social unrest, highlighting the urgent need for inclusive urban policies.

- **Governance Issues:**

✓ With at least 65% of SDG targets directly linked to the work and mandates of local and regional governments, there is a growing need for integrated governance and effective policy implementation.

- **SDG achievement:**

✓ The region is not on track achieving the SDGs

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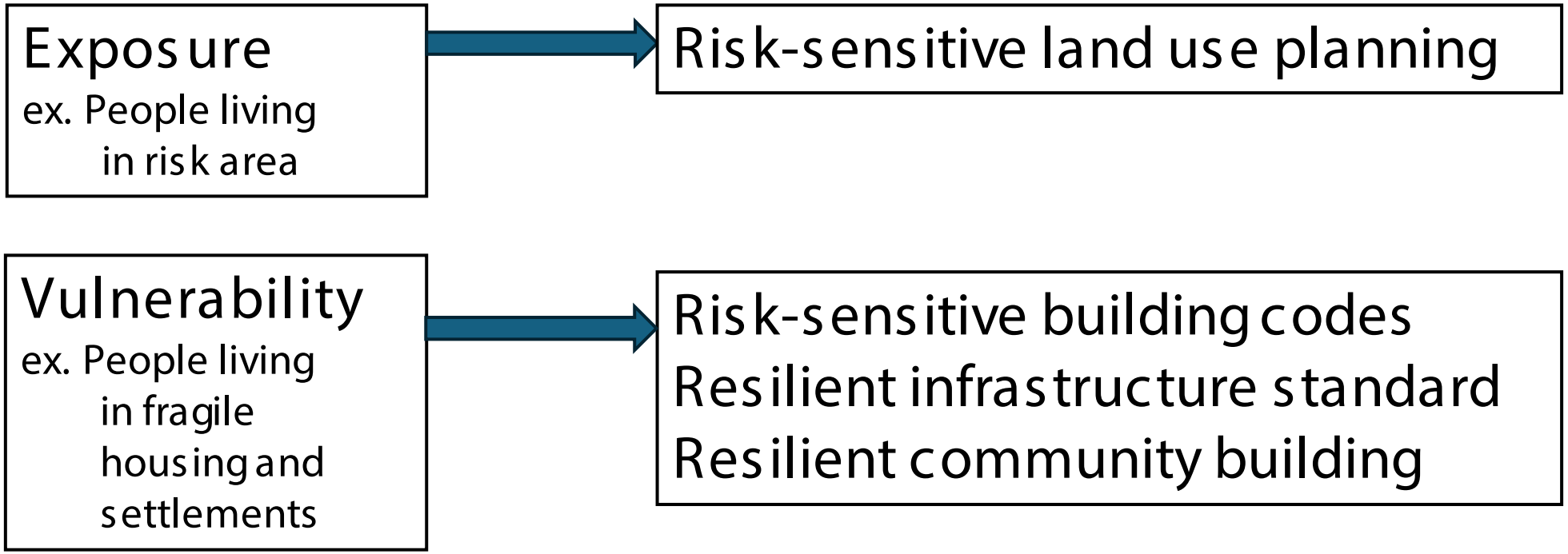
DRR Principles applied to cities

Disaster risk =

Hazard x Exposure x Vulnerability



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Common characteristics of UNH projects in Asia and the Pacific Region

- ✓ People's process: people/community centered approach
- ✓ Build Back Better
- ✓ Gender sensitive: Female participation and empowerment
- ✓ Capacity building for people (e.g. training of construction method)
- ✓ Utilization of local construction method & materials

PHILIPPINES: Huy-anan nan Bajau sa Surigao (Homes for Bajaus in Surigao)

YEAR: 2023-2024

REGION/CITY: Surigao City

DONOR: Spanish Cooperation (AECID)

Context: Surigao del Norte, with Surigao City as its capital, is one of the localities worst-affected by **Super Typhoon Rai/Odette** (December 16, 2021) which further aggravated the development challenges in the 4th poorest region in the country. The hazard maps indicate that most of the areas are susceptible to **storm surge and typhoons as well as tsunamis and earthquakes** thus making it among the most vulnerable provinces in the country. The **indigenous sea-based Sama Bajau community** living in the city are among the most vulnerable groups.

***Achievements*: 20 model houses** constructed for 20 families and **supporting livelihood opportunities for 100 families**, benefitting mostly women and children. Skilled **community workers with certificate** from national agency providing opportunities for work beyond project and becoming pool of community workers for maintenance and repairs.

Appealing point: Low-cost housing using nature-based solutions which harnessed the indigenous knowledge of the Bajaus in constructing houses on stilts on the sea. **People's Process** implemented involving the community in all processes from site identification and planning to resilient house design, construction and monitoring.

CAMBODIA: Project for Improving Living Environment and Disaster Prevention Capacity in Cambodia

YEAR: 2019 - 2020

REGION/CITY: Tboung Khmum

DONOR: Government of Japan

Contexts

The 2018 **flooding** in the lower Mekong triggered the evacuation of 2,148 families from Tboung Khmum. The families evacuated without shelter kits, sufficient food, and access to clean water.

Key Achievements

- **202 affordable houses** were reconstructed using **the Build Back Better** approach
- **216 clean latrines** were installed to prevent the spread of infectious diseases.
- Nearly **10,000 people** indirectly benefited **from livelihood assistance**, etc.
- **172 carpenters and construction workers** have been trained.
- **70 national and sub-national government officials** build capacity on disaster risk management.

Appeal Points

- ***The people's process*:** The project promoted the participation of the community members in housing reconstruction.
- ***Locally available resources*:** Climate-resilient housing designs by using sustainable/affordable materials and local construction knowledge and skills.
- ***Women's empowerment*:** The project promoted women's empowerment and participation. (56% of Community Development Committee members were women)

References: video, photobook, web story

SRI LANKA: Participatory Housing Reconstruction for Displaced Communities



YEAR: 2004 - 2024

REGION/CITY: North, East, North-west, Central, Western and Southern Provinces

DONOR: Govt of India; EU, Govt of Australia, Swiss Development Agency, Gov of Japan and UAE, Municipality of Munich, UNHCR, UNDP, International Federation of Red Cross and Red Crescent Societies

Approach

- Guided by the **People's process**, (a) owner and **community driven planning** and reconstruction; (b) **vocational skills building**; (c) **integrating DRR and climate resilience and LNOB** into reconstruction **policies**, planning and implementation.



Context

- Expanded with **tsunami and post conflict reconstruction** and **displacement** due to development. UN-Habitat supports **peace-building** and conflict resolution through improving access to **secure tenure, housing and infrastructure**.

Achievements

- **46,000+ houses** reconstructed; improved access to **21,000+ land titles ; community infrastructure** constructed
- Empowering **households, particularly women** who manage the construction process, improved tenure security, long term local economic development.
- **Capacity building** for facilitation and quality assurance of the reconstruction process

AFGHANISTAN: Improving living conditions of people in vulnerable situations through Shelter and Housing Repairs in Afghan cities

YEAR: 2021-2024

REGION/CITY: : inc. Kabul, Herat, Jalalabad

DONOR: Afghanistan Humanitarian Fund (AHF)

Context

- ***Multiple housing reconstruction projects*** after **earthquakes** or **flood** as well as **displaced people** in different provinces in Afghanistan (inc. Kabul, Nangarhar and Kunar), increasing safety, dignity, and resilience of vulnerable households.
- ***Emphasizing sustainable construction practices***, such as earthquake resilience, improved water resistance and enhanced natural light and insulation, the projects integrate disaster risk mitigation aligned with the "**Build Back Better**" principle.
- ***Area-based/neighborhood approach*** ensures that the overall living environment improve.

Achievements

- ***Over 6000 households repaired and retrofitted*** through minor and major repairs. The projects applied UN-Habitat's **"People's process"** and supported owner-driven priorities, customizing repair packages to the needs of individual households;

- ***UN-Habitat applies a humanitarian-development nexus approach***: responding to humanitarian needs with a "development" oriented approach that helps people and settlements to become more resilient to shocks of any kind (inc. climate change induced); The impact and process of housing repair projects were showcased during WUF 12 in an urban cinema event;

CONSULTATIONS WITH INDIVIDUAL HH

HOUSING AFTER REPAIRS

CAMBODIA: Increasing Climate Resilience through Small-scale Infrastructure Investments and Enhancing Adaptive Capacity of Vulnerable Communities in Kampot and Koh Kong Provinces

YEAR: 2024 – 2028(ongoing)

REGION/CITY: Kampot and Koh Kong

DONOR: Adaptation Fund

Contexts

In project target areas, the majority of the houses incur damages on the roofs, walls, and foundations brought about by **strong winds**. They pose great threats to property, finances, and the lives of the poor and marginalized.

Key Target

- **60 resilient housing and toilets** will be constructed in the 2nd and 3rd year.
- **2,000 families** will attend the workshop and learn about resilient housing construction techniques.
- About **450 families** will indirectly benefit from on-site upgrading.

Appeal Points

- ***Participatory Construction:*** Unskilled and semi-skilled community residents will build their capacity on resilient housing construction techniques through capacity-building sessions, and the project recruit them instead of external construction companies.
- ***Youth participation:*** The project plans to promote **youth (10 young graduated architect students) participation** in housing design and construction.

References: web story, leaflet

Myanmar Earthquake Response

Myanmar Earthquake

Myanmar Earthquake

Estimated Damage

17 million people affected/
57 out of 330 township across the country

Death 3000 ↑

Injured 5000 ↑

Missing 370

(Source; OCHA Myanmar Earthquake Flash Update #3 as of 3 April 2025)

Homes 5500

Gov't Buildings/worship Places 2200

Schools 168

(Source: Human Initiative Situation Report #3 as of 1 Apr. 2025)

Source:
Sagaing Earthquake Damage Assessment Dashboard

Myanmar Earthquake

More than 17 million people affected/
57 out of 330 township across the country.

The hardest-hit areas remain without electricity and water, while telecommunications and internet access are severely disrupted, cutting off affected communities from essential services.

(Source; OCHA Myanmar Earthquake Flash Update #3 as of 3 April 2025/ Photos: WFP Myanmar)

UN-Habitat in Myanmar

Emergency shelter support under the Post-Yagi Flood Recovery

Emergency shelter support under the Post-Yagi Flood Recovery and Emergency Shelter Sector Assistance.

Promoting climate-resilient shelter and local building materials through workshops led by a Japanese expert, Mr. Hiroto Kobayashi

Donor: EU

Period: 2024

Veneer Shelters in Taung Gyi and Kalaw|
Emergency shelter support for Yagi Typhoon

UN Habitat in MYANMAR
Strengthening the Resilience of Informal Settlements Against COVID-19

Japanese Government Support Project

- **Duration:** April 2021 - May 2024 (completed)
- **Budget:** Approximately 7.3 million USD
- **Total Beneficiaries:** 273,277 people
  (102,500 citizens + 170,777 children and students)

- The project was implemented in informal settlements, including schools, to i**mprove access to safe water, enhance sanitation conditions, and manage waste disposal,** to prevent the Covid-19.

- **The underground rainwater storage tanks**, commonly known as "Tame Totto" (by **Daiken Company in Fukuoka City**), was adopted.

Component A: Improving access to safe water and sanitation

Component B: Guidance on proper waste disposal methods

Component C: Activities to raise awareness about sanitation

Smart city applications for disaster risk management

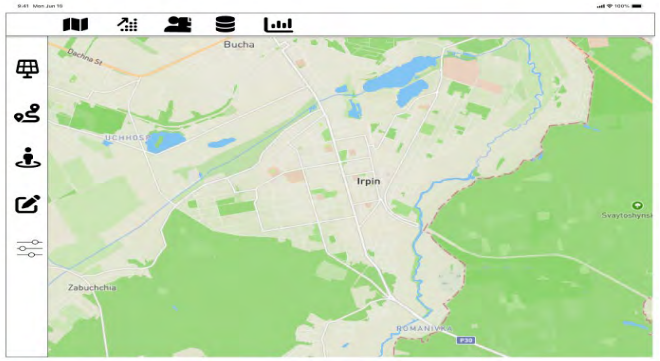
AI-enabled models can help boost the accuracy of disasters' prediction as well as preventively assess their impacts on diverse urban areas and communities.

Drones and AI models can enhance decision making during natural disasters, by improving mass evacuation and the rescue of survivors.

Immersive technologies can be used in post-emergency phases to inspect virtual models of real buildings and create simulations for their reconstructions

Project example: Digital tools for cities

URBAN RECOVERY SYSTEM



- Urban recovery planning system with several modules of mapping, planning, assessments and visualization to support urban recovery in Ukraine.
- A prototype is being tested.
- Next steps: Integrating functionalities for damage assessments, map recovery projects, etc.

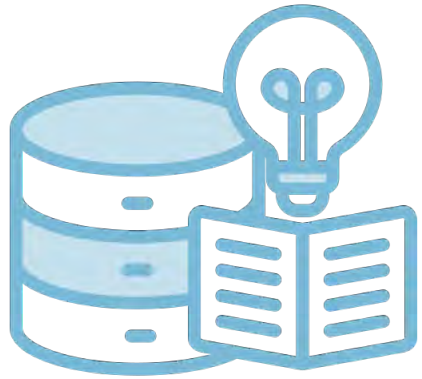
URBAN DATA PORTAL

- Currently developing open data platforms for harmonizing data tables, images, and GIS data, with interface to other systems for Namibia & Ukraine
- Facilitating data sharing, harmonization and use of data for evidence-based decision making.

HOUSING INFO SYSTEM

- Currently conceptualizing a National Housing Information System for Namibia, including a module on informal settlements.
- Key functionalities of the system will be decided with the stakeholders in Namibia.

CAPACITY BUILDING



- Digital transformation training for city leaders
- Develop toolkits & guidance on
  - AI and geo-spatial mapping
  - Smart city strategy development
  - Urban innovation and technology accelerator

Reflection from my experience: Some challenges for disaster risk reduction in cities

- **Insufficient data:** Need to strengthen data collection to design evidence-based disaster risk reduction strategies. Especially most vulnerable areas (e.g. slums and informal settlements) lack data. Interoperability of data is also an issue.

- **Cross-sectoral partnership:** DRR is a cross-sectoral issue. We need to mobilize and discuss with, not only UN Habitat's traditional line ministries but also, DRR ministry, ministry of finance and ministry of social welfare.

- **Private sector engagement:** Private sector is important even in DRR. They have technical expertise, for example, in developing risk models. They also contribute to the livelihood continuity, if they continue business by BCP. We need to strengthen our partnership with private sector.

- **Disaster risk reduction, climate change and gender:** must be mainstreamed in urban policies to further promote SDGs.

UN-HABITAT

A better quality of life for all in an urbanizing world

Thank you very much for your kind attention