

# UN-Habitat's work on adaptation and resilient human settlements

**Session 4** 

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## **The Global Climate Challenge**

### **Rising Global Temperatures**

Global warming has increased to approximately 1.4°C by 2023, with projections up to 3.5°C by 2060 under varying emission scenarios.

### **Urban Vulnerability**

Cities contribute about 70% of global GHG emissions and face severe risks from climate impacts like floods and heatwaves.

### **Biodiversity Loss**

Urban expansion threatens biodiversity hotspots, risking the loss of 290,000 square kilometers of natural habitats by 2030.

### **Urban Systems Thinking**

Integrated planning is crucial for reducing emissions and adapting cities to climate change, thereby avoiding maladaptive pathways.



## Asia-Pacific: Most vulnerable to climate change

#### **Vulnerability Hotspots**

- Greater Black Sea
- Altai Sayan
- Lake Baikal
- Amur Heilong
- Eastern Himalayas
- Yangtze Basin
- Mekong Complex
- Western Ghats
- Sumatra
- Borneo
- Coral Triangle
- Pacific Islands

to climate change



#### compounded **by...**



Increasing rapid urbanization & population growth



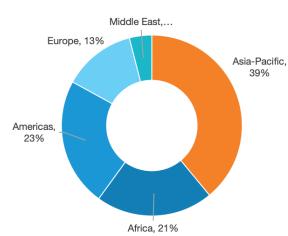
A geography with low-elevated territories & vast coastlines



Multiple other crises such as COVID-19, migration, conflict, inequality, and disaster risks

## Impacts of Climate Change in Asia-Pacific

### **Climate Hazards**



40%

of disasters worldwide have occurred in the Asia-Pacific from 2000 to 2021

### **Economic Impact**



us \$3.8 M

in economic damages monthly in the Asia-Pacific from 1970 to 2022

us \$57 M

in economic damages in the Asia-Pacific in 2022 only

**Social Impact** 



**+7,500** 

Deaths caused by disasters in the Asia-Pacific region in 2022

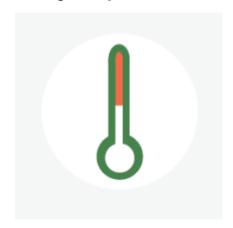
**24M** 

People displaced by climate disasters in the Asia-Pacific in 2024



## **Regional Climate Change Trends and Impacts**

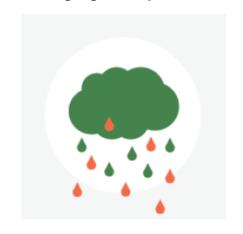
**Rising Temperatures** 



**Urban Heat Islands (UHI)** 



**Changing Precipitation Patterns** 



**Ecosystem Degradation** 



**Sea-Level Rise** 



**Air and Water Pollution** 



**Extreme Weather Events** 



**Water Scarcity** 



## UN-Habitat Asia-Pacific & Climate Adaptation

### **Strengthening Local Resilience**

- Conducting climate vulnerability assessments
- Developing district-level adaptation plans
- Promoting nature-based solutions and risk-informed urban planning

### **Inclusive and Participatory Planning**

- Ensuring the voices of women, ethnic minorities, and vulnerable groups are reflected in adaptation strategies
- Supporting community-led adaptation efforts

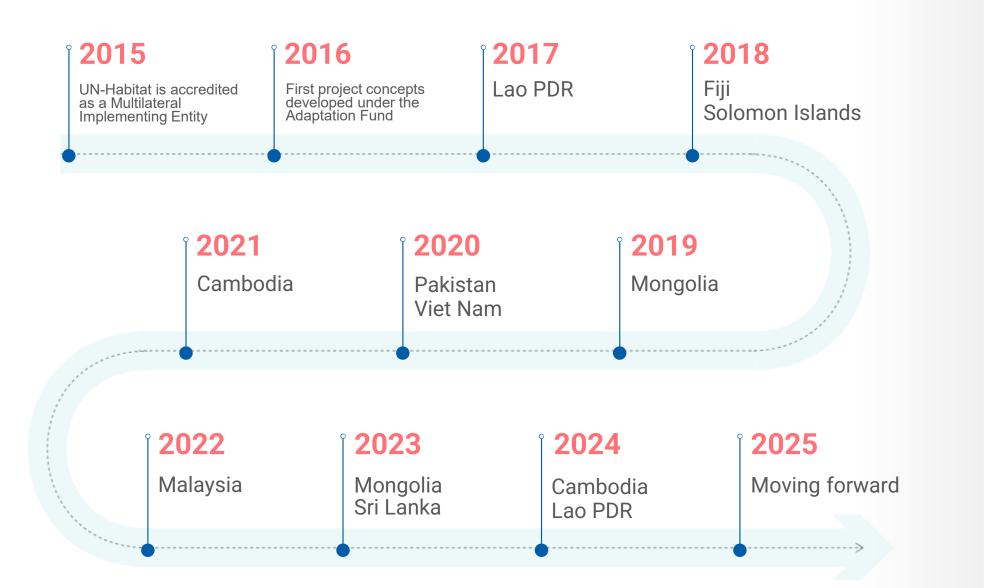
### **Policy Alignment**

- Supporting national frameworks such as National Adaptation Plans (NAPs)
- Aligning with the Sustainable Development Goals (SDGs), especially SDG 11 and SDG 13

### **Capacity Building and Coordination**

- Enhancing institutional capacity at national and sub-national levels
- Facilitating multi-stakeholder coordination for effective climate action

### 10-year partnership with the Adaptation Fund to address climate change



### **Our partners**



National level Government



Local Level Government



Non-government Organization



Non-profit Organization



Community Groups

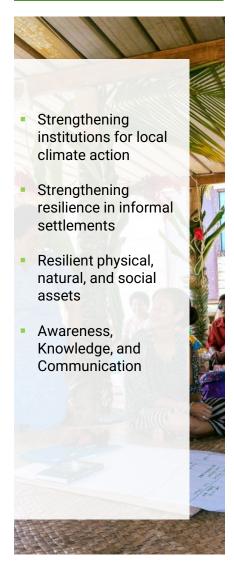


Community-Based Organization



### **Adapting to Change: Our Regional Climate Action Interventions**

#### Fiji



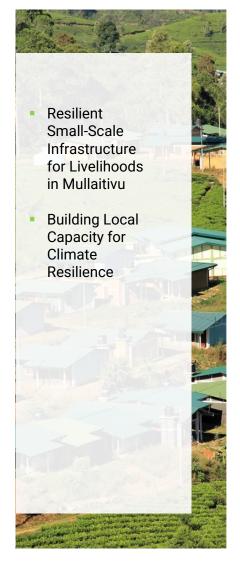
#### Malaysia



#### **Solomon Islands**



#### Sri Lanka



#### **Viet Nam**



### **Adapting to Change: Our Regional Climate Action Interventions**

#### Cambodia

### **Building Local Capacity** for Long-Term Climate Resilience **Building Institutional** Capacity to Sustain Climate Investments **Building Resilience with** Protective Infrastructure and Ecosystems **Restoring Coastal Ecosystems for Resilient** Livelihoods **Building Climate** Resilience Through Capacity & Knowledge Sharing

#### Lao PDR



#### Mongolia

- **Enhancing Regulatory** Frameworks for Climate Resilience
- **Building Multi-Level Capacity** for Climate Adaptation
- Reducing Flood Risk Through Resilient Infrastructure
- **Enhancing Knowledge to** Sustain and Scale Project Gains
- Generating Hazard Data for Resilient Urban Planning
- Community-Led Planning for Flood Resilience in Ger Areas

#### **Pakistan**

- Strengthening Local Capacity for Sustainable Water Harvesting
- Resilience Through Strategic Planning
- & Provincial Capacity for Climate-Informed **Urban Development**





### Adapting to Climate Change Through Nature-based Solutions

- Actions to protect, sustainably manage and restore natural or modified ecosystems that increase climate resilience and address societal challenges at the same time
- Making nature an ally to adapt to climate change impacts.
- In concrete terms, it means **relying on capital that** nature offers us, such as forests, mangroves, salt marshes, seagrass beds (etc.).
- The implementation of NbS has been described as "cost-effective" as it brings many co-benefits.

## What are Naturebased Solutions



#### Natural Systems for Urban Challenges

NbS use ecosystems-like wetlands, forests, and green spaces—to reduce risks such as flooding, heat, and air pollution.

#### Co-benefits for People and Planet

NbS support biodiversity, improve public health, and enhance urban livability while mitigating climate



#### Mitigation

Urban trees can lower temperatures by up to 2°C, while restored wetlands can absorb carbon and manage

#### Cost-Effective & Adaptable

Compared to grey infrastructure, NbS are often cheaper to implement and maintain, and adapt more flexibly to local conditions.

#### Community Involvement

NbS often involve local stakeholders in planning and stewardship, reinforcing social cohesion and resilience.



We previously had to carry water from the river, and due to the lack of water, there were no toilets. Now, schools and households can access clean water!

Villagers from Saravane, Lao PDR

Such changes are happening in many **other sectors** in more places



600K+ 1.8M+

Direct beneficiaries supported by the project

Indirect beneficiaries supported by the project

50%+

Beneficiaries are women

### Accelerating Multilevel Climate & Urban Environment Action in the Asia Pacific Region



### **Urban Energy**

Cities account for over 75% of global energy use and emissions— especially in the Asia-Pacific region. To meet climate goals and tackle energy poverty, UN-Habitat is accelerating access to renewable energy for vulnerable urban communities



### **Biodiversity**

The Asia-Pacific region hosts nearly half of the world's biodiversity hotspots, supporting approximately 200 million people. But rapid urbanization and land-use change have driven habitat loss and environmental degradation. To reverse biodiversity decline, cities must adopt proactive, nature-positive urban planning.



## Pacific Climate Resilience

Pacific SIDS face rising climate risks as global temperatures near 1.5°C. Existing systems fall short, making adaptation harder and increasing loss and damage. A resilient future depends on coordinated action by governments, communities, and partners across all levels.



### **Stronger NDCs**

Asia-Pacific is rapidly urbanizing and facing growing climate risks. UN-**Habitat ROAP** supports countries in integrating urban climate actions into NDCs through capacity building, tools, and regional coordination to accelerate urbaninclusive climate commitments.



#### **Green Buildings**

With rapid urbanization, the building sector in the Asia-Pacific is a significant source of emissions. UN-Habitat ROAP's **Green Buildings** Programme promotes energy efficiency, sustainable materials, and resilient design to drive decarbonization and sustainable urban development.

### Accelerating Multilevel Climate & Urban Environment Action in the Asia Pacific Region



#### **Urban Heat**

Asia-Pacific cities face rising climate risks-from extreme heat to rapid urbanization. UN-Habitat is driving regional action through renewable energy access, green buildings, nature-positive planning, and urbanintegrated climate strategies to build resilient, inclusive cities.



#### **Urban Health**

Climate change is worsening urban health risks in the Asia-Pacific—from heat stress to air pollution and disease. UN-Habitat promotes integrated planning that links climate action with healthier, more resilient cities.



#### **CC - Crisis**

The Asia-Pacific region faces overlapping crises from climate change and disasters to conflict and displacement. With 7 million refugees and 5 million IDPs, there's an urgent need to integrate climate resilience into humanitarian and development responses for more inclusive, adaptive human settlements.



## Urban Loss&Damage

Asia-Pacific is highly climateimpacted—hosting 6 of the 10 most weather-affected countries and 78% of global disaster displacements. Informal settlements face rising loss and damage. Proactive, informed urban responses are critical.



## **C-Communication for Local Leaders**

Local leaders play a crucial role in climate communication, particularly in the Asia-Pacific region, where the impacts are deeply felt. Yet misinformation and limited resources hinder progress. UN-Habitat supports stronger local messaging to drive awareness, partnerships, and action.

# THANK YOU 🔑