

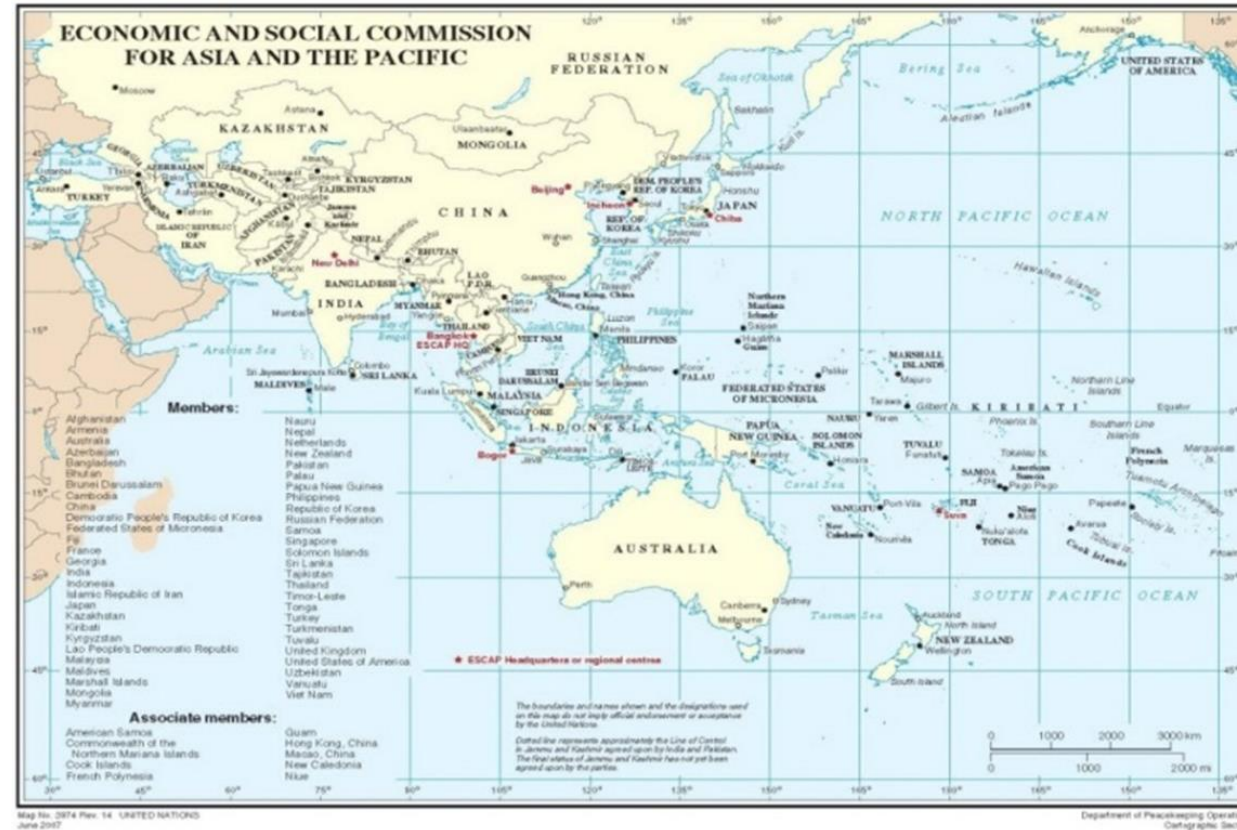
*Trilateral conference on Building the Green, Digital & Inclusive City of
the 21st Century
11 January 2024*

Cities as Global Hot Spots of Climate Action - Resilience through Collaboration, Evidence Based Decisions and Innovation in the 21st Century

Curt Garrigan
Chief, Sustainable Urban Development Section
ESCAP

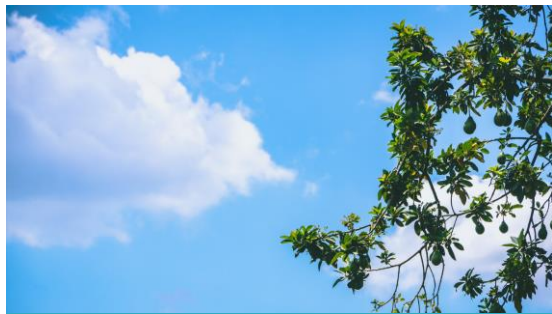
ESCAP: The regional arm of the UN for Asia-Pacific

- The United Nations Economic and Social Commission for Asia and the Pacific was established in 1947
- Part of UN Secretariat: 53 member states and 9 associate members
- ESCAP covers the world's most populous region - two thirds of humanity
- Based in Bangkok, with 4 Sub-regional offices
- ESCAP works to strengthen regional cooperation to promote social & economic development
- Engages with regional and global networks to promote implementation of global agendas on climate and sustainable development
- Assists governments to implement policies that promote sustainable urban development and make efficient use of natural resources
- Develops solutions to create safe, resilient, resource-efficient and sustainable cities and towns across the region



ESCAP Environment and Development Division (EDD)

Areas of focus



Climate and
clean air

13
CLIMATE
ACTION



Nature for
people

2
ZERO
HUNGER



6
CLEAN WATER
AND SANITATION



14
LIFE
BELOW WATER



15
LIFE
ON LAND



Cities for a
sustainable future

11
SUSTAINABLE CITIES
AND COMMUNITIES



Sustainability
transitions

12
RESPONSIBLE
CONSUMPTION
AND PRODUCTION



Where do we work?

Some examples

Waste management project in Kyrgyzstan

GHG emission inventories in Central Asia

Sustainable food-energy-water management in Uzbekistan and Kazakhstan

Tackling industrial water pollution in Bangladesh

Supporting environmental rights strengthening in ASEAN countries

Supporting agroecology transitions in Cambodia, Lao PDR, Thailand and Viet Nam



Air pollution projects in Indonesia, Maldives, and Thailand

Supporting environment strategy of Bhutan

Eco-labeling project in Cambodia

SDG 14 Accelerator in Samoa and other SIDS

Supporting voluntary local reviews in Australia, Japan, Indonesia, Malaysia, Thailand, and others

Cities climate action in China, India, Indonesia, Philippines, and Thailand

Cities in Asia and the Pacific – key to global development agendas



>50% of the Asia-Pacific population lives in urban areas and the number is expected to increase



~70% of the region's emissions come from urban areas

Overall, Asia Pacific accounts for more than half of global GHG emissions



99 of the top 100 cities facing environmental risks are in the region



7 in every 10 cities in Asia suffer from poor air quality

Cities amid crises and changing demographics

The Asia and Pacific region is urbanizing at unprecedented speed and scale.

The region's urban population will swell from



2.5

billion people

to

3.4

billion people

by **2050**

putting strain on infrastructure, public services and the environment



Cities are facing a range of urgent crises, such as...

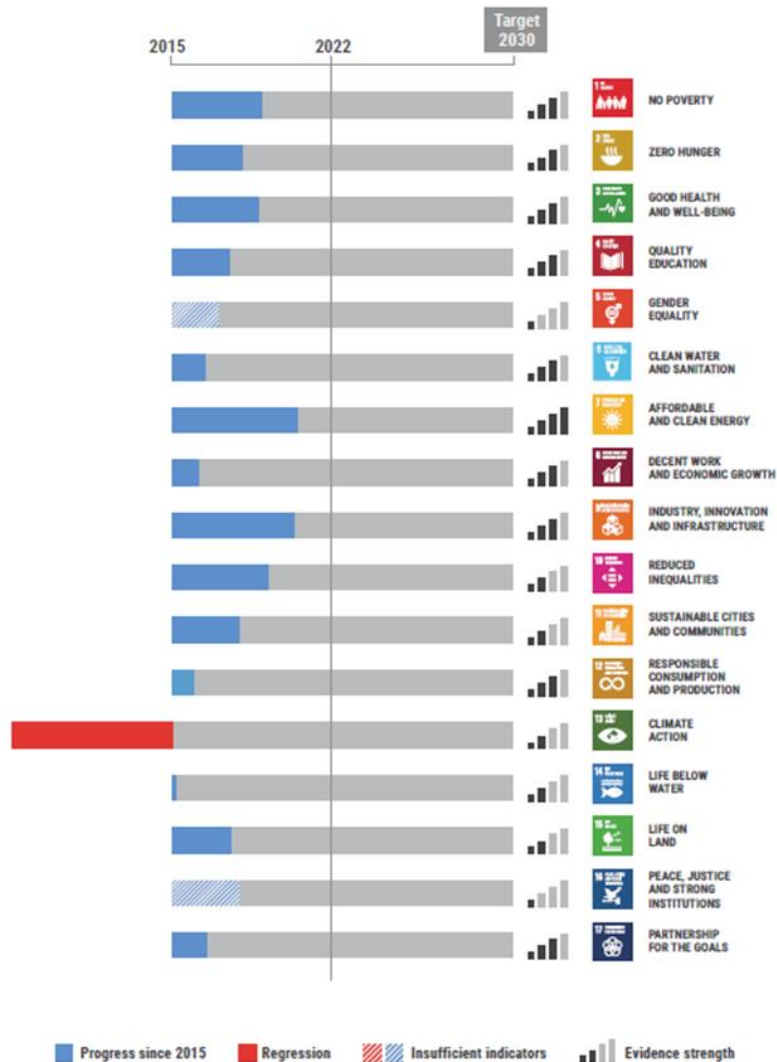
Climate change
Energy access to sustainable
Food insecurity
Recovery Pandemic
Housing affordable

All of these threaten the achievement of



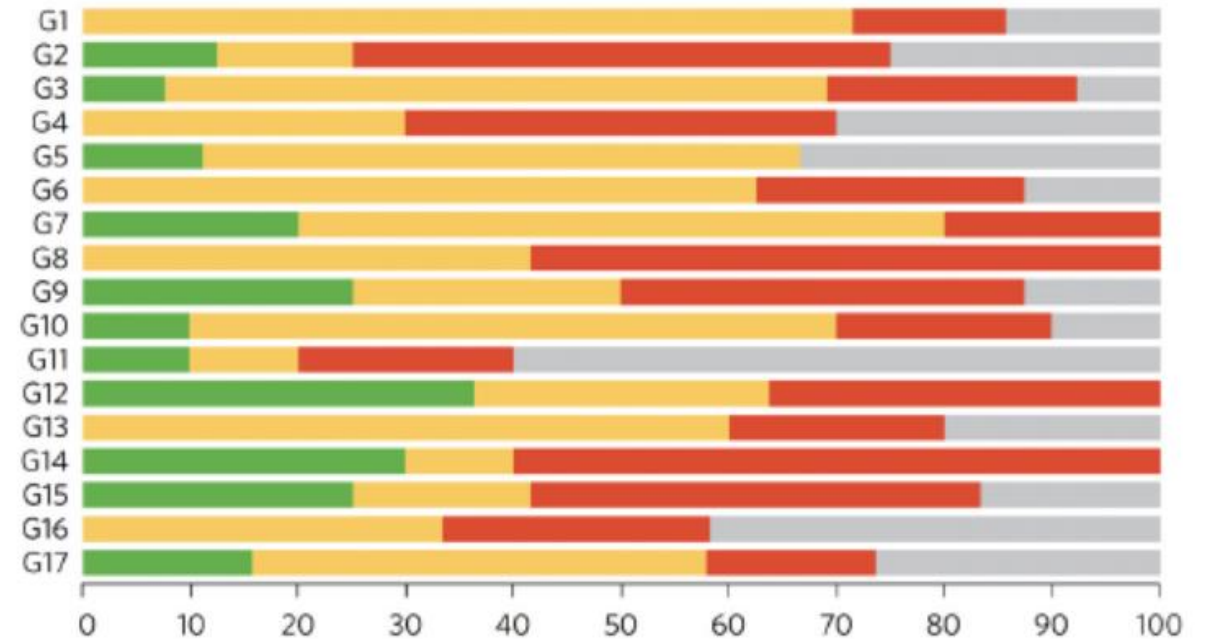
ESCAP
Economic and Social Commission
for Asia and the Pacific

Cities and the Sustainable Development Goals- Asia Pacific



Progress assessment for the 17 SDGs based on assessed targets 2023, or latest data. The figure illustrates the percentage of progress of the targets that can be evaluated under each of the goals.

- On track or target met
- Fair progress, but acceleration needed
- Stagnation or regression
- Insufficient data



Progress since 2015 Regression Insufficient indicators Evidence strength

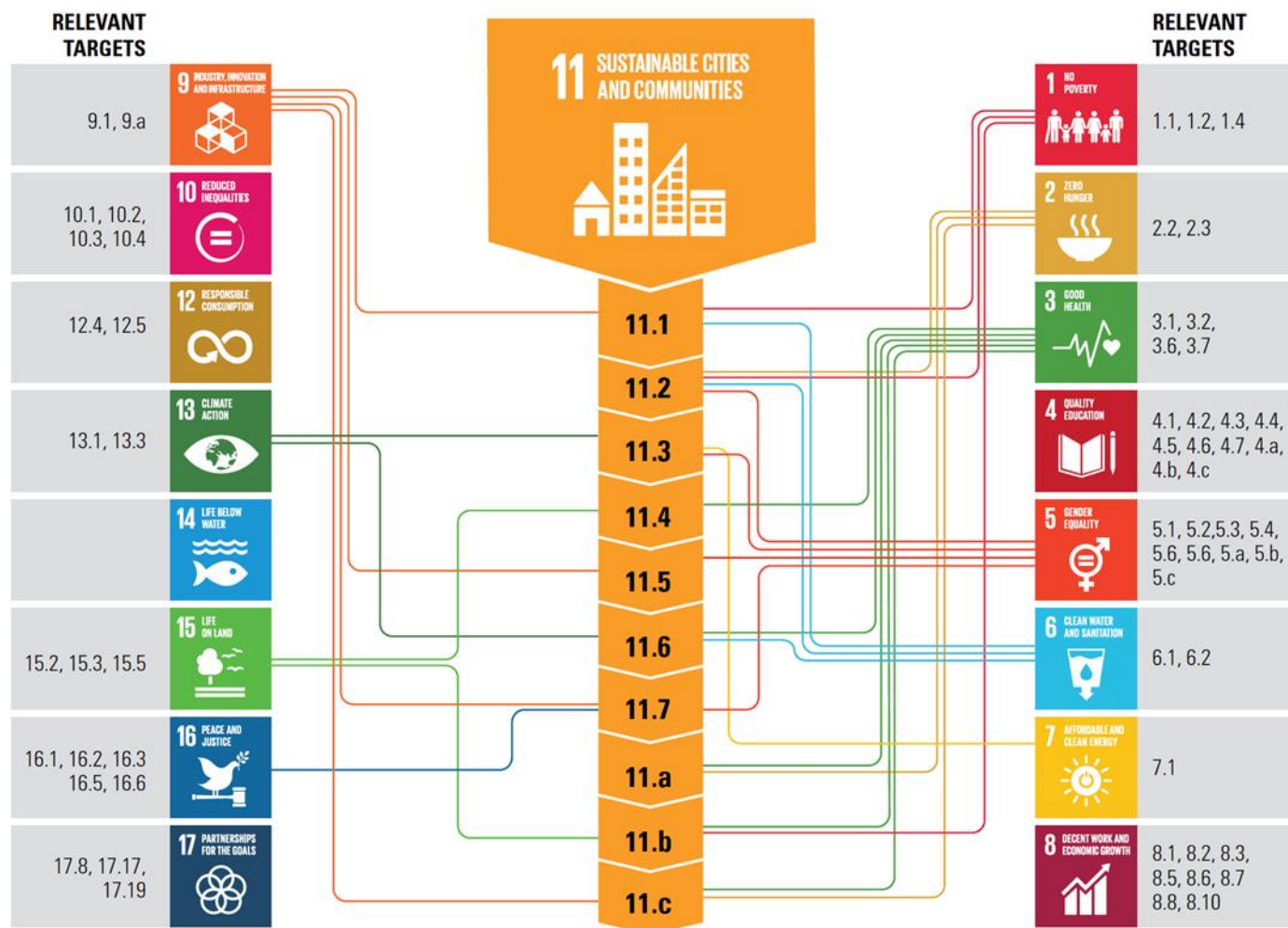
Cities and the Sustainable Development Goals- Asia Pacific



Cities make significant contributions to the implementation of the 2030 Agenda for Sustainable Development- *but they are not always recognized...*

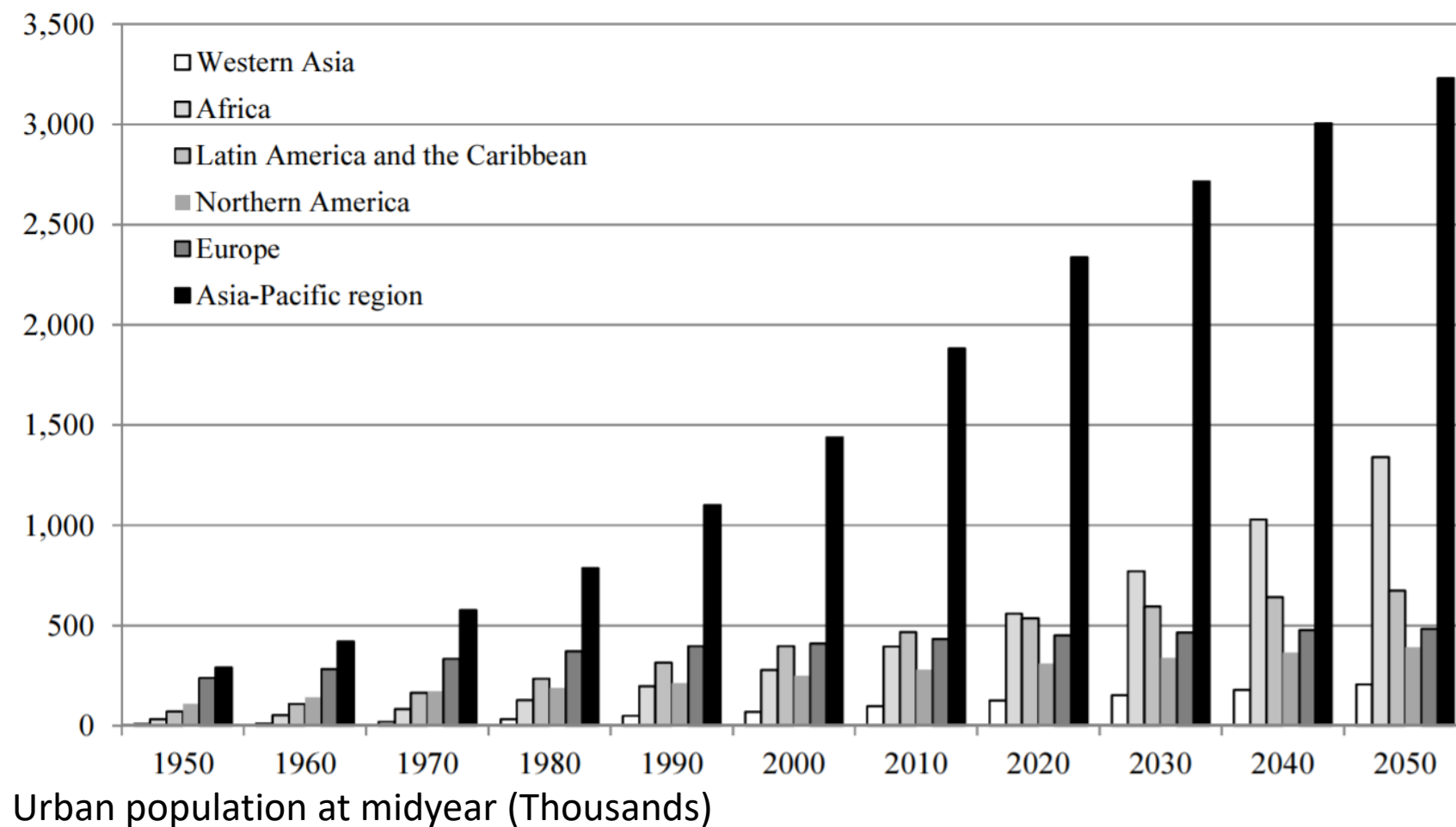
Source: M. Otto, UNEP

Cities and the Sustainable Development Goals- Asia Pacific



Projected growth in urban populations

- Since 2018, more are living in urban areas than rural areas
- By 2050, 70% of the population will live in cities
- 95% of urban growth will be in developing countries (most in Asia and Africa)
- Additional 1 billion+ urban population growth projected in Asia-Pacific by 2050 (2.5 B globally)
- In many cities, the population is growing faster than the governments can build infrastructure improvements, such as water, sanitation and roads/bridges



Urban Growth in Asia-Pacific Cities- Land use change



Da Nang
VIETNAM



Can Tho
VIETNAM



Pune
INDIA



Melaka
MALAYSIA



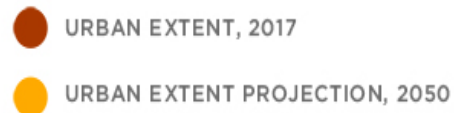
Haiyan
CHINA



Deyang
CHINA



Mandalay
MYANMAR



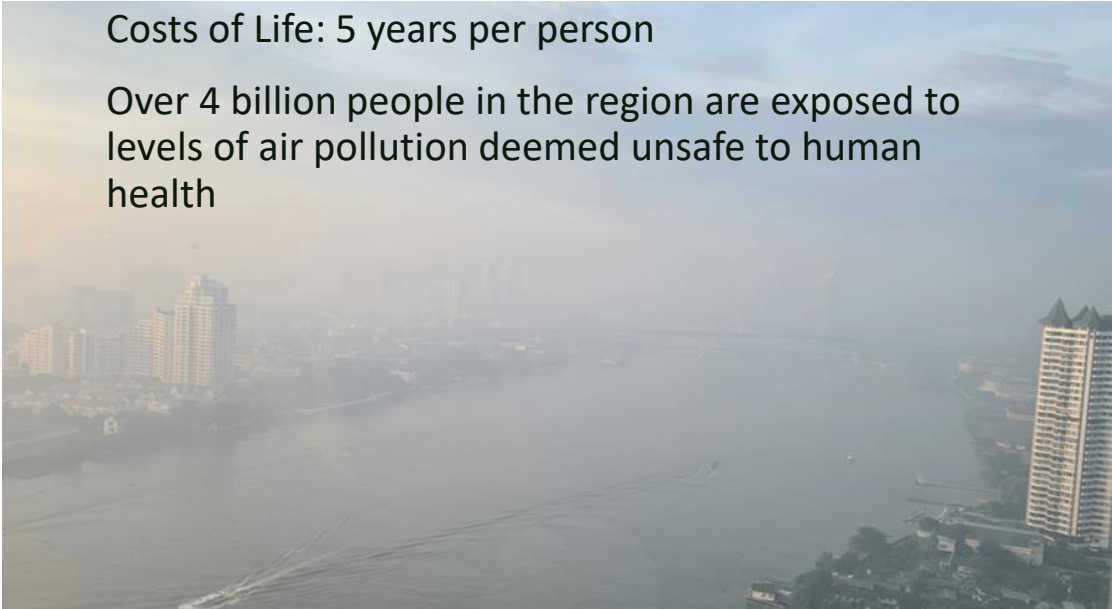
- Urbanization patterns characterized by sprawl
- High infrastructure costs/gaps
- Carbon-intensive development (construction; energy; transport-private vehicles)
- In 2020, the region's carbon intensity was higher than all other regions and 27 per cent more than the global average
- Transport emissions have increased by 200 per cent over the past three decades due to the rapidly growing demand for passenger and freight
- To achieve net-zero carbon by 2050, CO2 emissions from transport need to decrease by at least 3 per cent annually.

Source: Rockefeller 100 Resilient Cities Initiative
<https://www.100resilientcities.org/planning-urban-growth-resilient-future/> 100 RC & Marron Institute

Urban challenges- Achieving Clean air: synergies with healthy environments and climate

Costs of Life: 5 years per person

Over 4 billion people in the region are exposed to levels of air pollution deemed unsafe to human health



6.5 million people die annually from exposure to poor air quality. 70% of air pollution related death occur in Asia and the Pacific.

92% of people living in the Asia and the Pacific (or 4 billion people) are exposed to unhealthy levels of air pollution.

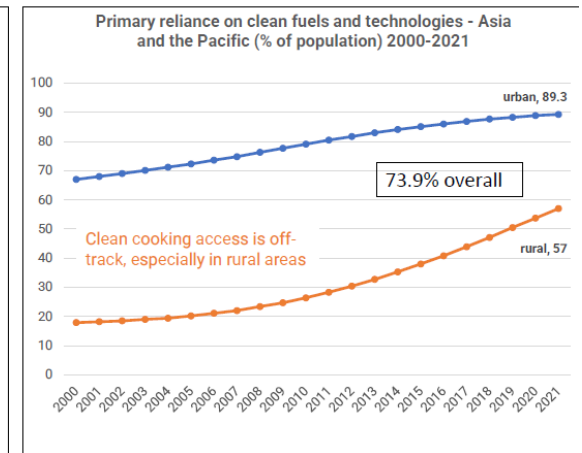
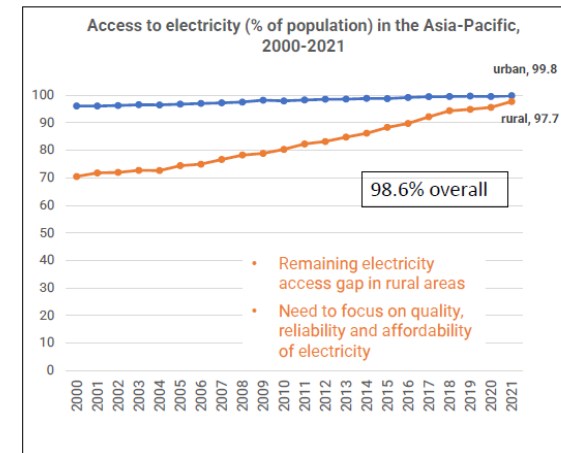
30 Most Polluted Cities in the world-- amid a high rate of urbanization

- Cities in Asia and the Pacific are disproportionately impacted by air pollution. They were estimated to have the highest death rates associated with exposure to PM_{2.5}.
- Often, vulnerable people include women, children, the elderly and the poor, who have limited access to health services are exposed to the highest levels of air pollution.
- Clean air solutions and climate co-benefits

Basic Urban Services- Local needs linked to global challenges

Access to basic urban services contributes to a healthy environment:

- Clean Energy (household/cooking)
- Urban Mobility and Transport
 - Access to employment, education, health services, etc.
 - Opportunities for reduced emissions
- Green and Open Space
 - Loss of biodiversity
 - Lack of recreation spaces for healthy living
 - Urban Heat Island effect and more emissions
- Solid Waste Management
 - Plastic pollution is a significant issue in the Asia-Pacific region, most generated from urban land sources
 - Underdeveloped waste management systems may be responsible for as much as 60 per cent of global plastic waste leakage.
 - Some municipalities spend up to 40% of budget on waste management (mostly collection and transport to landfill)



Water Resources- emerging crisis

- Today, more people have access to safe drinking water (from 74% in 1990 to 94%); Access to sanitation increased from 44 to 65% (mostly in urban areas);
- Wastewater treatment as low as 4%; Pollution and poor water quality are common problems
- Many of the freshwater sources in Asia are already over-extracted
- Increase in demand of 55% by 2030 for urban water, including in cities that already face water stress and scarcity;
- Insufficient infrastructure to meet demand for domestic water, manufacturing, and thermal electricity generation.
- More water is needed for food and energy production amidst shifting urban-rural water ratios.



In the next 3 decades,
demand for water in
cities is projected to
increase by

50-70%

Source: World Bank

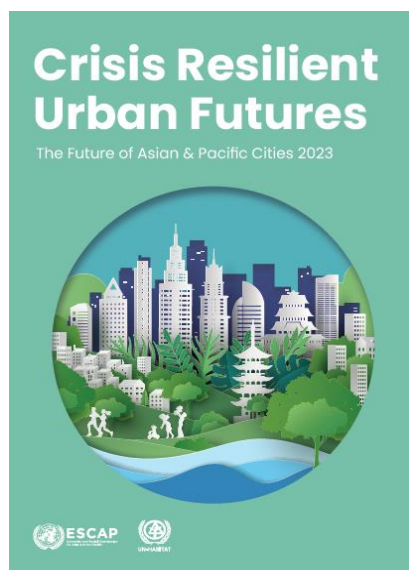


Cities are critical to achieving sustainable development

...yet, multiple and interlinked crises are creating significant challenges to achieving the SDGs and realizing potential for local climate action

The **Future of Asian & Pacific Cities Report 2023 Report**, entitled “**Crisis Resilient Urban Futures**”, developed by ESCAP, UN-Habitat and partners, offers a forward-looking agenda to shape post-pandemic pathways for a sustainable urban recovery.

The report identifies four key areas:



01

31 Chapter 01

**Urban and territorial
planning for a resilient
future**

02

49 Chapter 02

**Urban resilience at a
crossroads: multilevel
climate action**

03

67 Chapter 03

**Urban digital
transformation: linking
innovation to inclusion**

04

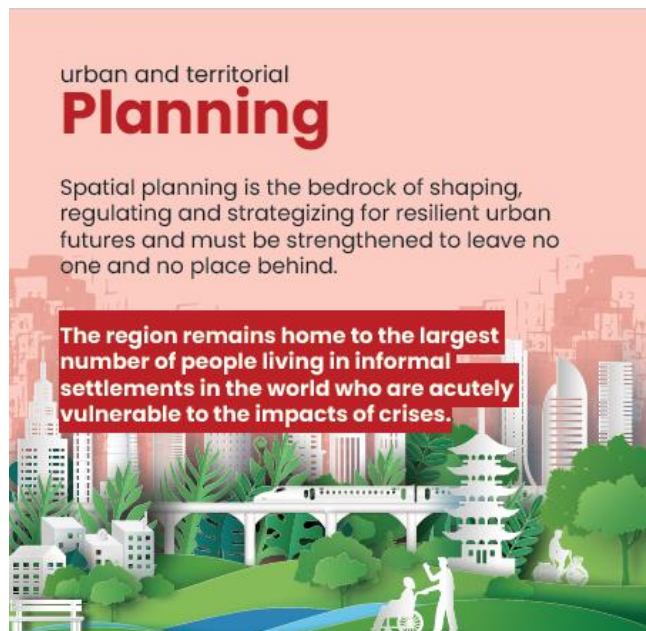
79 Chapter 04

**Urban finance during
turbulent times**

Scan to download



Crisis Resilient Urban Futures



- *Create a policy environment for transformative and resilient urban planning, enabled by multilevel governance*
- *Ensure the provision of capacity-building and coordination for effective urban planning and local action*
- *Develop holistic housing, urban planning and disaster-risk management policies, strategies and regulations to address the affordable housing crisis in cities*
- *Promote integrated, compact, mixed-use neighbourhoods and cities supported by public transport and active mobility to meet climate and sustainability targets*

Compact, low-carbon development enhancing the efficiency, liveability and sustainability of cities

Greener and more carbon neutral cities and neighbourhoods

Harmonize and enhance nature into cities to address climate, clean air and biodiversity crisis

Disaster risk reduction for urban areas, especially coastal communities

Integrated Urban and Territorial Planning

- Building capacity for robust, multi-stakeholder planning processes
- Enhancing national urban policies
- Integration of land use, energy, transport planning
- Resilient infrastructure and low-carbon development
- Forecasting urban resource needs



According to UN-Habitat, the total investment need for infrastructure and the SDGs is estimated at \$38 trillion for the years 2020-2030, with the total investment gap being \$5.6 trillion.

Forward-looking planning and resilience strategies are essential to facilitate- and safeguard- investments



Screenshot of the Sustainable Urban Development Gateway website. The page features the ESCAP logo and a video player with a play button. The text on the page reads: "Sustainable Urban Development Gateway", "A new generation of e-learning resources available to explore POLICY PATHWAYS towards a sustainable urban future.", and "START".

Crisis Resilient Urban Futures



- *Integrate urban communities as key actors to build resilience against climate and other shocks*
- *Deploy innovative urban adaptation pathways to address existing and new climate risks*
- *Enhance data collection and local evidence to inform and accelerate climate action in cities*
- *Shift to low-carbon sources to tackle the urban energy crisis*
- *Provide platforms for monitoring, reporting, verifying and integrating multilevel climate action*

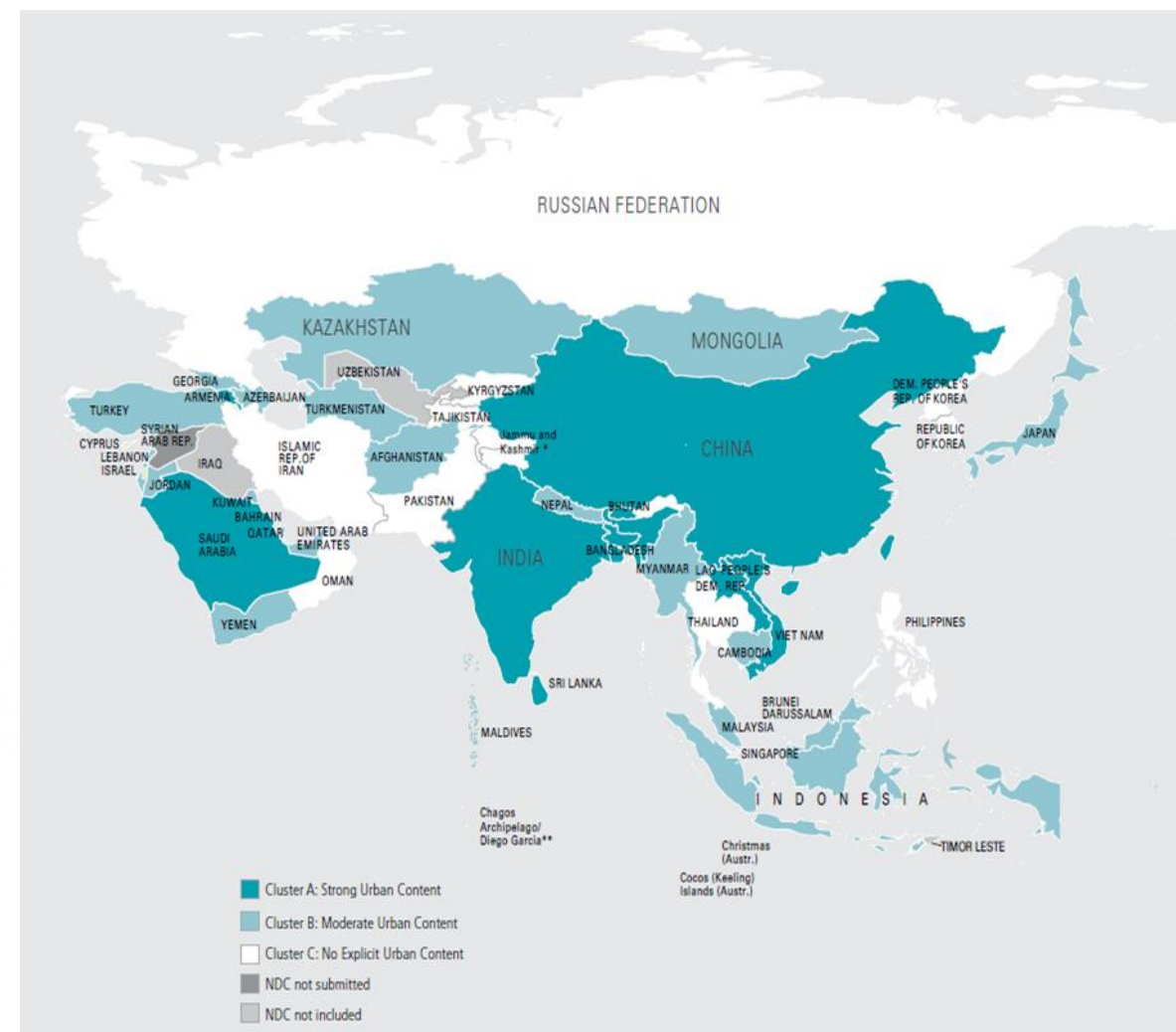
Public health and mobility factors intersect with decarbonization goals

Nature-based solutions for infrastructure and address climate and clean air targets

Climate crisis is heavily intertwined with the global biodiversity crisis, impacting vast food and material production systems

Urban Climate Action and Nationally Determined Contributions (NDCs)

- Local frameworks and instruments required to turn NDC commitments into action.
- The Philippines and India are the two largest countries in the region to make 2°C compatible commitments in their NDCs.
- In some countries, urban sector ministries are key drivers of horizontal collaboration (which supports vertical integration).
- Cities are making direct contributions to mitigation and adaptation goals, with support from C40, GCoM, UCLG, among others.
- Many NDCs from the region prioritize urban areas or urban-related priorities – providing a basis for vertical integration.



Source: UN-Habitat (2018). Sustainable Urbanization and the Paris Agreement, p.31.
Note, original source includes countries outside the ESCAP definition of Asia-Pacific

Crisis Resilient Urban Futures

Digital

transformation

To address persisting digital inequalities and build people-centred smart cities, true digital transformation across the region requires inclusion as well as innovation.

Nearly **40%** of Asia-Pacific's population remains unconnected or poorly connected to internet resources.



- *Develop people-centred national smart-city policies as an enabler of inclusive and sustainable urban development*
- *Enhance capacities of governments at all levels to design and implement inclusive digital strategies with a clear resilience mindset*
- *Promote citizen engagement and multi-stakeholder partnerships for digital transformations in cities*

Need to overcome social, economic and technological inequalities which limit access to urban employment, education, health information, wider urban networking

Opportunities for merged digital data to support extension of services

Utilize smart and digital innovation for more efficient management of traffic, energy use, safety (with road safety, air quality and climate benefits)

Digitization and Smart Cities

- Digital solutions offer new and innovative solutions for city climate action in the Asia-Pacific region (energy efficiency, water management, and especially urban mobility);
 - One good practice is Beijing's *Pick Me Up*, a transport application. This is privately operated but with support from national and city government;
 - Cities like Shanghai, Hangzhou and Nanjing are replicating the initiative, with potential to reduce carbon dioxide emissions by 658 tonnes per year.
 - Bhubaneswar, as part of India's Smart Cities Mission has implemented *Mu Saviour*, an app that crowd-sources data about flood risk;
 - *Mu Saviour* is in line with India's NDC commitment but also directly engages communities.



Source: ADB Report 50 Climate Solutions From Cities In The People's Republic Of China

Crisis Resilient Urban Futures



- *Expand, diversify and increase municipal revenue collection to stimulate a local economic recovery*
- *Establish a transparent framework for intergovernmental transfers for greater economic resilience against future shocks*
- *Ensure that land-based financing instruments are aligned with the development of compact polycentric urban areas*
- *Create more stable and predictable policy, regulatory and incentive frameworks to enhance private sector investment for an urban economic recovery*
- *Promote enabling environments to facilitate climate responsive urban finance and municipal finance instruments in support of local climate action*

Loss of tax revenue and expenditure on pandemic response further strained the financial resources of cities, exacerbating budget deficits.

Governments 'rebalancing' following diversion of resources and funds towards public health emergency, reducing the allocation of grants and transfers for urban development.

Cities Climate Finance remains limited and often inaccessible to cities needing it most (emerging secondary cities)

Targeted incentives, such as tax breaks, grants or subsidies, can encourage private sector investments in health care, digital infrastructure, renewable energy and urban development.

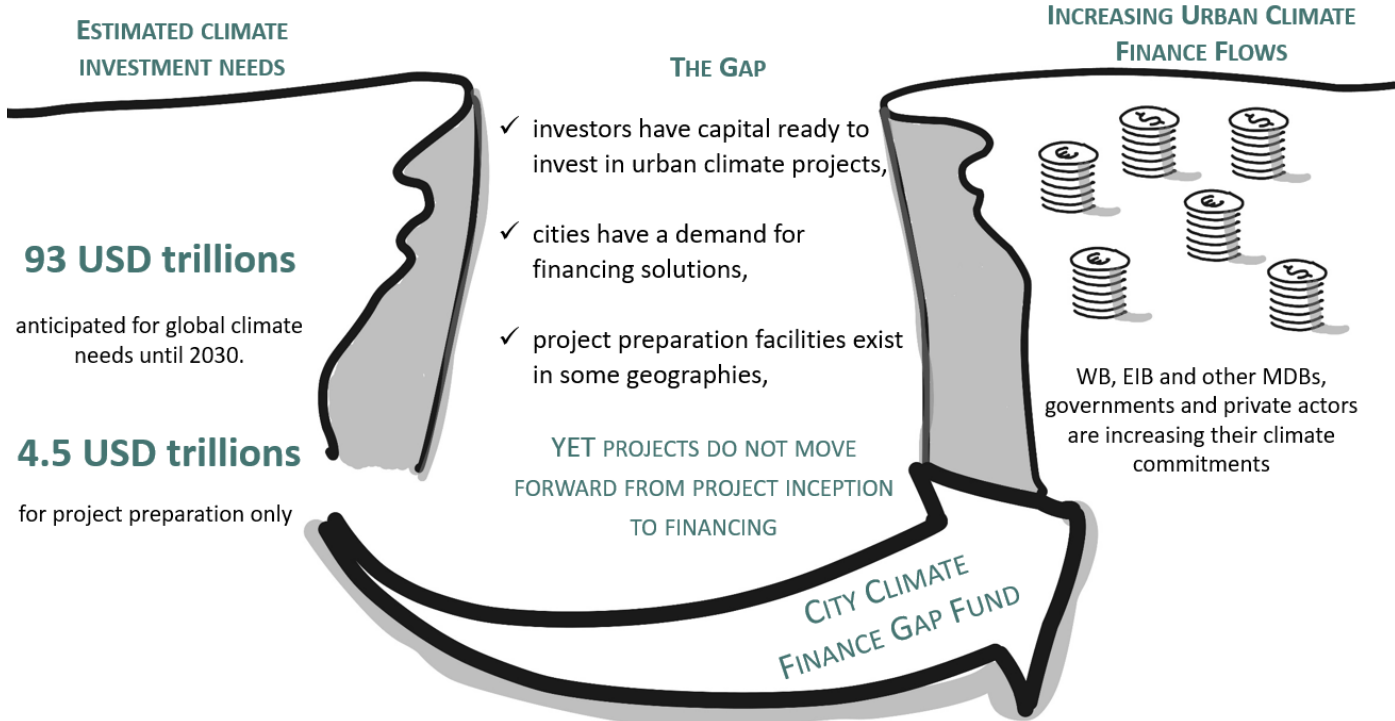
Unlocking Local Climate Finance

IFC (2018) estimates that **urban sustainable investment opportunities in cities in emerging markets** alone amount to

USD 2.5 trillion annually
through 2030.

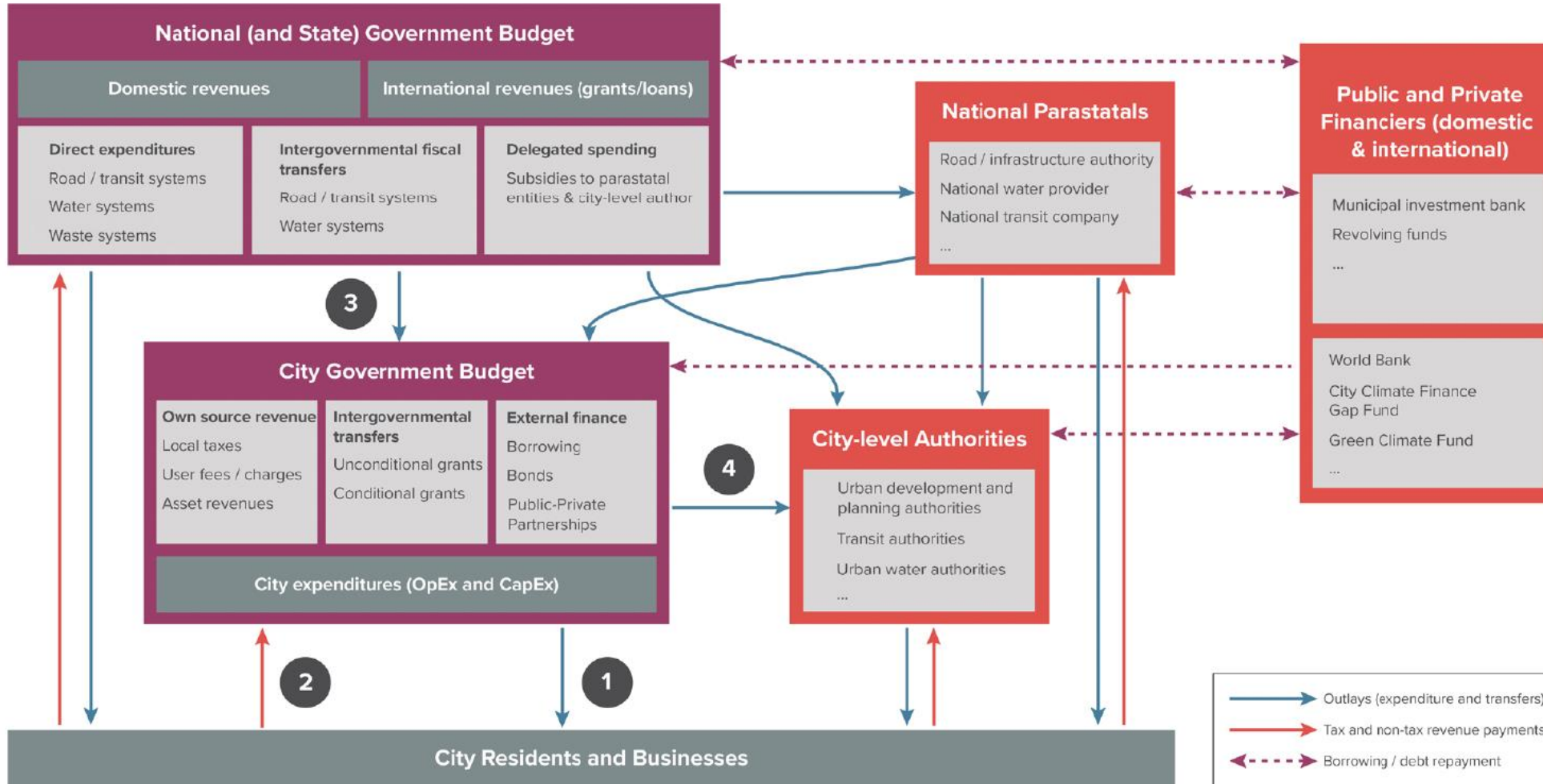
→ **60%** of that in **South East Asia and North East Asia**

— ESCAP is working with GIZ, UCLG ASPAC, CCFLA and others to foster local climate action through the 'UrbanACT' project



Source: City Climate Finance Gap Fund (EIB, WB, Germany, GIZ, Luxembourg, GCOM, CCFLA)

Local Climate Finance

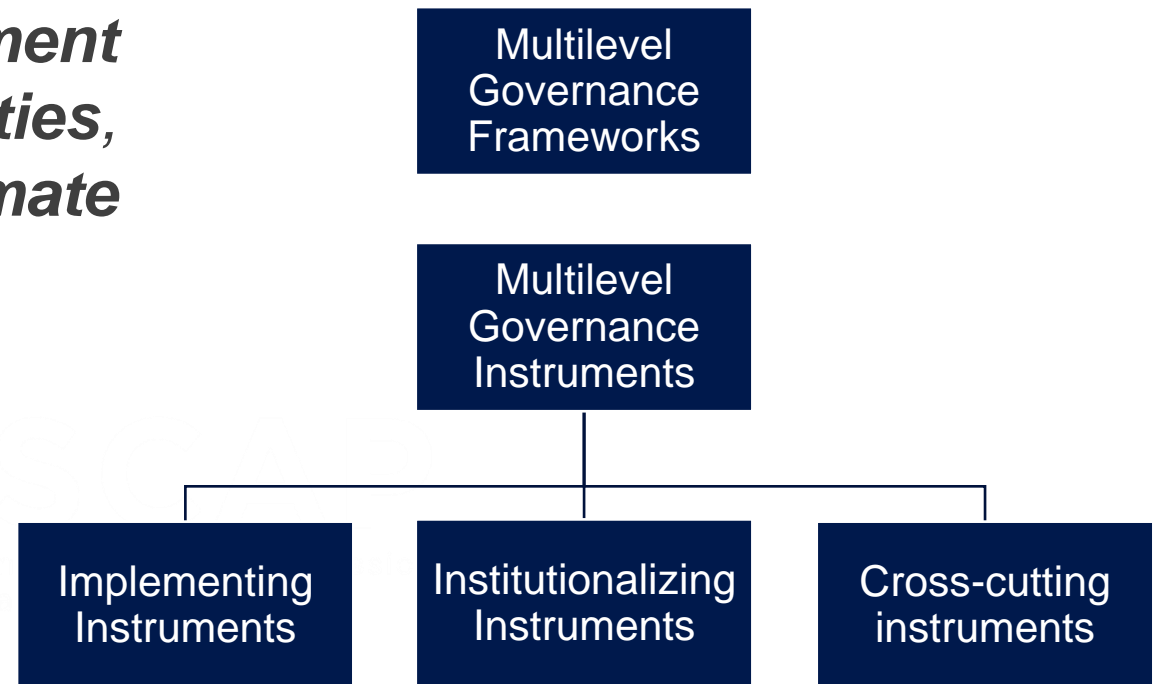


Country-level enabling conditions determine the sources and size of city government funding and finance for climate investments

Importance of Multi-Level Governance Frameworks

“ *the structural and institutional setting in which different levels of government distribute roles and responsibilities, coordinate and cooperate on climate action* ”

- Frameworks are the systems in which different levels of government interact.
- Instruments are the specific platforms, funding mechanisms, and action plans that are implemented to support climate action at the local or city level.



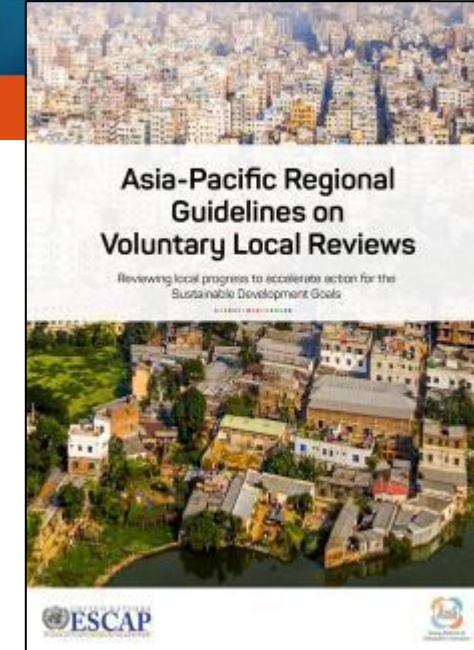
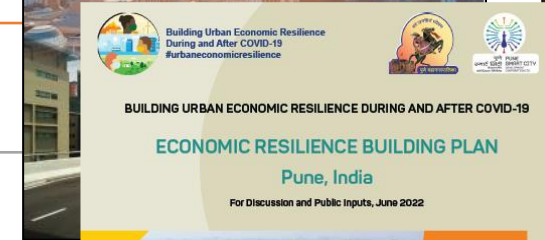
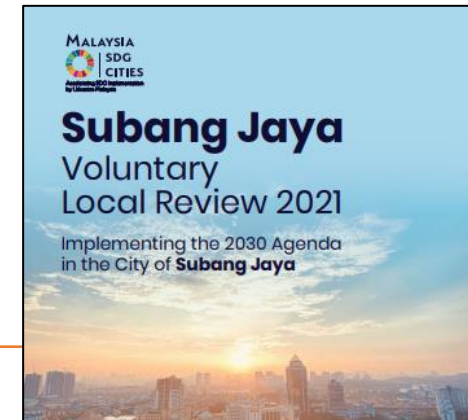
Leveraging benefits from SDG localization

Enhance multi-level governance and urban policy coordination

Local climate action plans; Local Resilience and Recovery Strategies and Local air pollution action plans

Facilitate Multistakeholder and private sector partnerships for financing municipal SDG priorities

VLR as a practical tool for monitoring SDG localization



Integrating National and Local Review of the SDGs



Source: United Nations Department of Economic and Social Affairs, 2018.

Annual VNR-VLR sessions at the Asia Pacific Forum on Sustainable Development



Fill information gaps



Enhance vertical and horizontal coordination



Broaden stakeholder engagement



Strengthen legitimacy of local follow-up and review of the SDGs

Regional and multi-lateral cooperation



7th SESSION OF THE COMMITTEE ON ENVIRONMENT & DEVELOPMENT

Protecting Our Planet
through Regional Cooperation
and Solidarity in Asia and the Pacific

29 November - 1 December 2022

BANGKOK AND ONLINE



ENVIRONMENT &
DEVELOPMENT

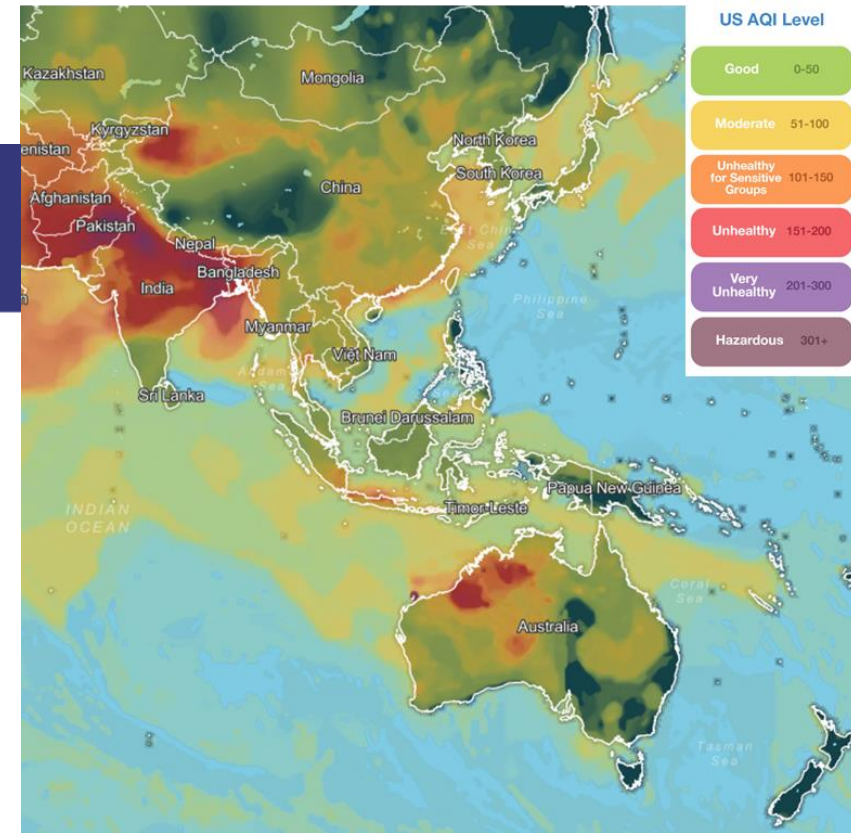
Regional Action Programme on Air Pollution (RAPAP)

- First regional action programme negotiated and adopted by governments
- To promote science-based and policy-oriented cooperation for improved air quality management
- To establish an open regional platform for the exchange of information and best practices
- Involved 6 subregional and thematic consultations, technical projects and 9 intergovernmental consultations

Clean Air

RAPAP

Action areas



Crisis Resilient Urban Futures

Crisis Resilient Urban Futures

The Future of Asian & Pacific Cities 2023



A sustainable urban future can only be realized through **joint action and regional urban partnerships** in every area.

Scan the QR code



More than ever, **cities must rise** to overcome the crises threatening resilient, sustainable and connected urban development.

By embracing the urgent challenges of today and jointly putting ideas into action for tomorrow, cities across the Asia and Pacific region can **build a crisis resilient urban future** for all.

THANK YOU

Follow us:



unescap



unitednationsescap



www.unescap.org



unescap



unescap



united-nations-escap

For more information, please visit the Environment and Development Division webpage
<https://www.unescap.org/our-work/environment-development> and contact us as: ESCAP-EDD-EDPS@un.org