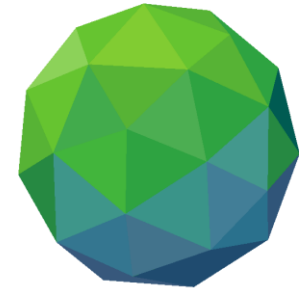


GCF's Cities, Buildings and Urban Systems Sectoral Guidance

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Low Carbon Cities

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GREEN
CLIMATE
FUND

NEW IPCC REPORT & PREVIOUSLY KNOWN DATA



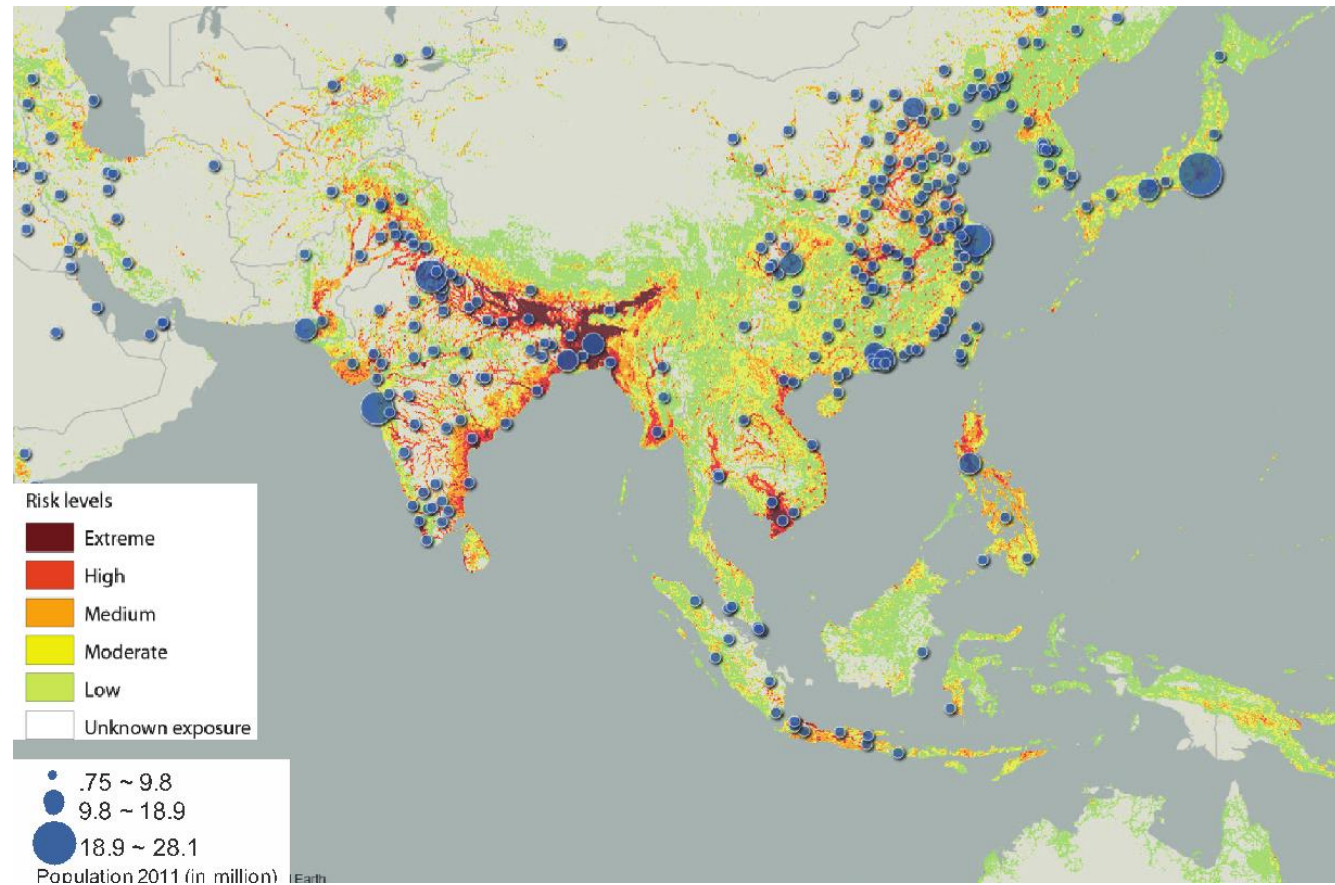
• 1.5 degrees Scenario

- Available global carbon budget is only about **750 Gt of CO₂ equivalent until 2030**;
- Great risk of disruptive path dependencies, not only in the urban sector, as most of the world continues to model economic growth according to past methods;
- 85% of demand for new housing in emerging economies, mostly across Asia and Africa

• 2 degrees Scenario:

- Available global carbon budget is about 1,050 Gt of CO₂ equivalent until 2030;
- Only existing urbanization trend – CO₂ footprint of construction of new infrastructures in developing countries and emerging economies could lead **to 350 Gt of CO₂ emissions**;
- Resource intensive and high-carbon urbanization process need to be stopped at all costs

MANY URBAN LOCATIONS ARE AT HIGH RISK OF CLIMATE IMPACTS



Of the 305 urban agglomerations in Asia, 119 are situated along coastlines

INVESTING IN URBAN RESILIENCE



The Risks

As more people and assets become rapidly concentrated in cities and as infrastructure struggles to keep up with rapid growth, the risk from natural disasters and climate change is rising.



- World Bank predicts that on a global scale to urban resilience, with at least 77 million of poor people at increasing risk;
- If cities fail to build their resilience to disasters, shocks, and ongoing stresses, climate change and natural disasters will cost cities worldwide \$314 billion every year by 2030.

CHALLENGES TO STRUCTURING URBAN INTERVENTIONS – ESPECIALLY RESILIENCE



- Lack of government capacity
 - Political uncertainty, poor regulatory systems, difficulties in planning, financing, and implementing projects.
- Lack of private sector confidence
 - Weak currency, currency risks, limited investor confidence
- Challenges in project preparation
 - High up-front costs to prepare projects
- Financing challenges for subnational governments
 - Lack of creditworthiness and limited sources of local revenue

WHY CITIES AND CLIMATE CHANGE: CHALLENGES



- Cities produce 71% of all GHG today (6.856 out of 9.795 Gt CO₂eq, 2014 data)
- 50 cities with largest populations generate 2.6 billion tCO₂ annually
- Only 4% of the largest 500 cities by population in developing countries have access to international, and only 20% in local, financial markets
- Within cities, 40% to 65% of total GHG emissions are from buildings and transport.

Cities deliver **economic outputs** and employment: **80% GDP**

Cities **pollute** and are a **major contributor to climate change: 71% - 76%**

ESTIMATING THE URBAN CLIMATE FINANCE



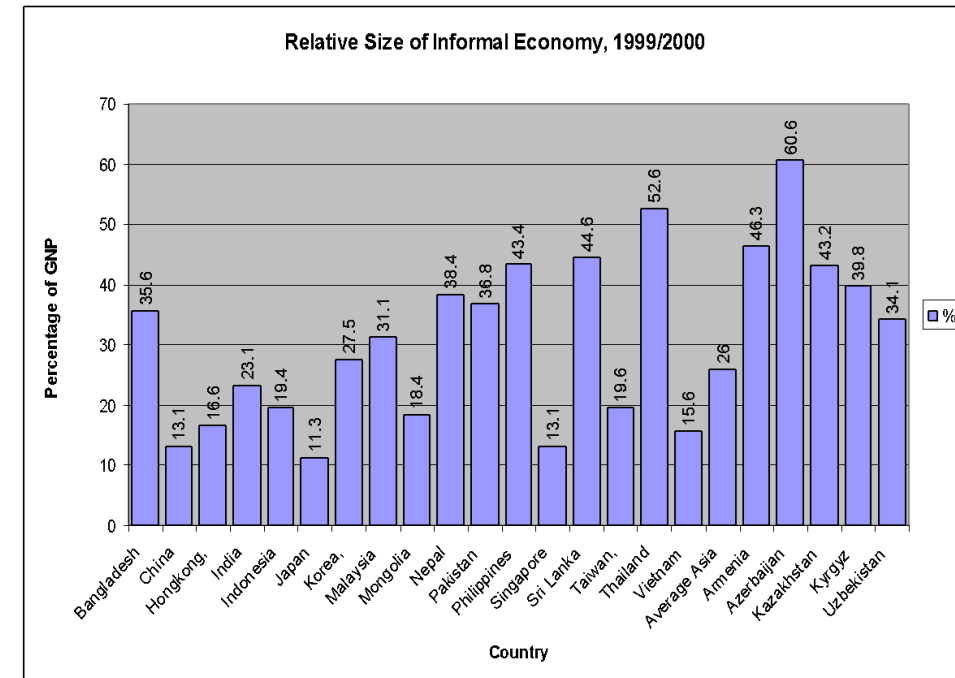
1. OECD: **USD\$6.9 trillion** will be needed for investment in energy, transportation, and water and sanitation and telecoms over the next 15 years to be consistent with a 2°C scenario (with a 66% probability) (OECD, 2017).
1. World Bank: Up to **USD\$400 billion** needs to be invested on a global scale to urban resilience. Failing to respond to climate change and natural disasters will cities worldwide will be **USD\$314 billion** every year by 2030 (World Bank, 2017).
1. Coalition for Urban Transition: A total of **US\$5 to US\$6 trillion** is required each year to meet human and economic development needs over coming decades. Therefore, the annual deficit in infrastructure investment is above **US\$1 trillion a year**. (Coalition for Urban Transition, 2018)

MEGACITIES, URBANIZATION AND SPRAWL



City	Country	National Population - mill 2012	National GDP - \$b 2012	City Population - mill 2012	Economic Product - \$b 2012	Percentage National GDP
Shanghai	China	1360.8	8358.4	18.6	516.5	6.18%
Mumbai	India	1239.8	1841.7	21.9	227.0	12.33%
Jakarta	Indonesia	249.9	878.0	19.2	224.7	25.59%
Manila	Philippines	99.1	250.3	20.7	153.7	61.41%
Bangkok	Thailand	65.9	365.6	10.1	262.4	71.77%
Tokyo	Japan	127.2	5959.7	37.7	1520.0	25.50%
Sydney	Australia	23.4	1520.6	4.0	203.0	13.35%
	Denmark	5.6	314.2			
	Bangladesh	152.5	115.6			

ECONOMIC GIANTS



BUT HIGH INFORMALITY

EMERGING GCF **IMPACT AREAS** – WHAT AND HOW



MEGACITIES



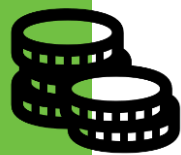
- Large scale integrated energy efficient land use / transport combined intervention;
- requires non-BAU project development and implementation with 30% GHG reduction potential alongside the key economic corridors

SECONDARY CITIES



- One of the key transformational area for cities identified by the SR1.5.
- Massive surge of urbanization need to follow the principles of sustainability and green growth
- Intervention would include municipal planning, climate friendly cooling / heating / energy technologies, construction standards and green deliveries.

ACCESS TO FINANCE



Decentralized / subnational finance platform for cities: utilize guarantee instrument, MoU with Cities Financing Facility, guidance and support to the Cities Financing Gap TA Fund; most promising RfP potential

Figure 1: Describing the overall structure of the guide, linking impact potential across the sector to programming pathways and financing structures



Urban sector guide

Global context	Paradigm-shifting pathways (Transformative Action Fields)	FUND Financing
<p>Over 2/3 of global population expected to reside in cities by 2050</p>	<p>Decarbonization of energy systems: distributed renewable energy. Generation of energy from renewable sources at the community and household levels and the utilization of sustainable micro-grids</p>	<ul style="list-style-type: none"> ▪ Deploying GCF’s financial instruments to foster implementation of NDCs based on needs of mega and secondary cities ▪ GCF fostering blended finance solutions: <ul style="list-style-type: none"> ○ Appropriate for the depth, breadth & sophistication of the national capital markets ○ That tap new sources of capital ○ That match concessionality to non-monetized climate benefits ▪ Supporting decentralized finance, enabling subnational entities access to climate finance and viable long-term funding mechanisms ▪ Catalysing and resourcing structures that leverage private sector financing ▪ Building both the number of direct access AEs and their capacity to pipeline and finance climate investments in cities and urban institutions
<p>58% of global emissions and 21% of global emissions reduction potential from urban areas by 2050</p>	<p>Energy efficiency in building stocks: retrofits of existing buildings and green standards in new buildings including more efficient and green procurement of inputs</p>	
<p>75% of infrastructure expected by 2050 has yet to be built & 85% of cities have experienced major climate impacts</p>	<p>Compact & resilient cities: improved integration of multi-sectoral investment to mitigate impact of heat waves, sea level rise and to bolstering ecosystems, and in land development and low carbon transport in compact cities to improve energy efficiency and resilience of urban areas – focusing on ensuring benefits accrue to the most vulnerable</p>	
<p>Generate over 70% of GDP but only 10% of climate financed disbursed at the local level</p>	<p>Circular urban economy: reducing emissions from methane from landfills and incentivizing the adoption of circular production models based on the full life cycle of materials</p>	

Four drivers of paradigm-shift

Drivers of change across result areas

Transformational planning & programming

Catalyzing climate Innovation

Mobilization of finance at scale

Expansion and replication of knowledge

Paradigm - shift pathways (Transformative Action Fields)

Decarbonised & distributed Energy

Energy efficient buildings

Circular urban economy

Compact & resilient urban form

- Strengthen mechanisms to implement NDCs and urban climate targets through planning and programming process
- Foster integrated urban, transport, energy and infrastructure development
- Institutional strengthening for pipelining and project development
- Develop and apply new technical standards (MES etc) and performance standards in support of the above

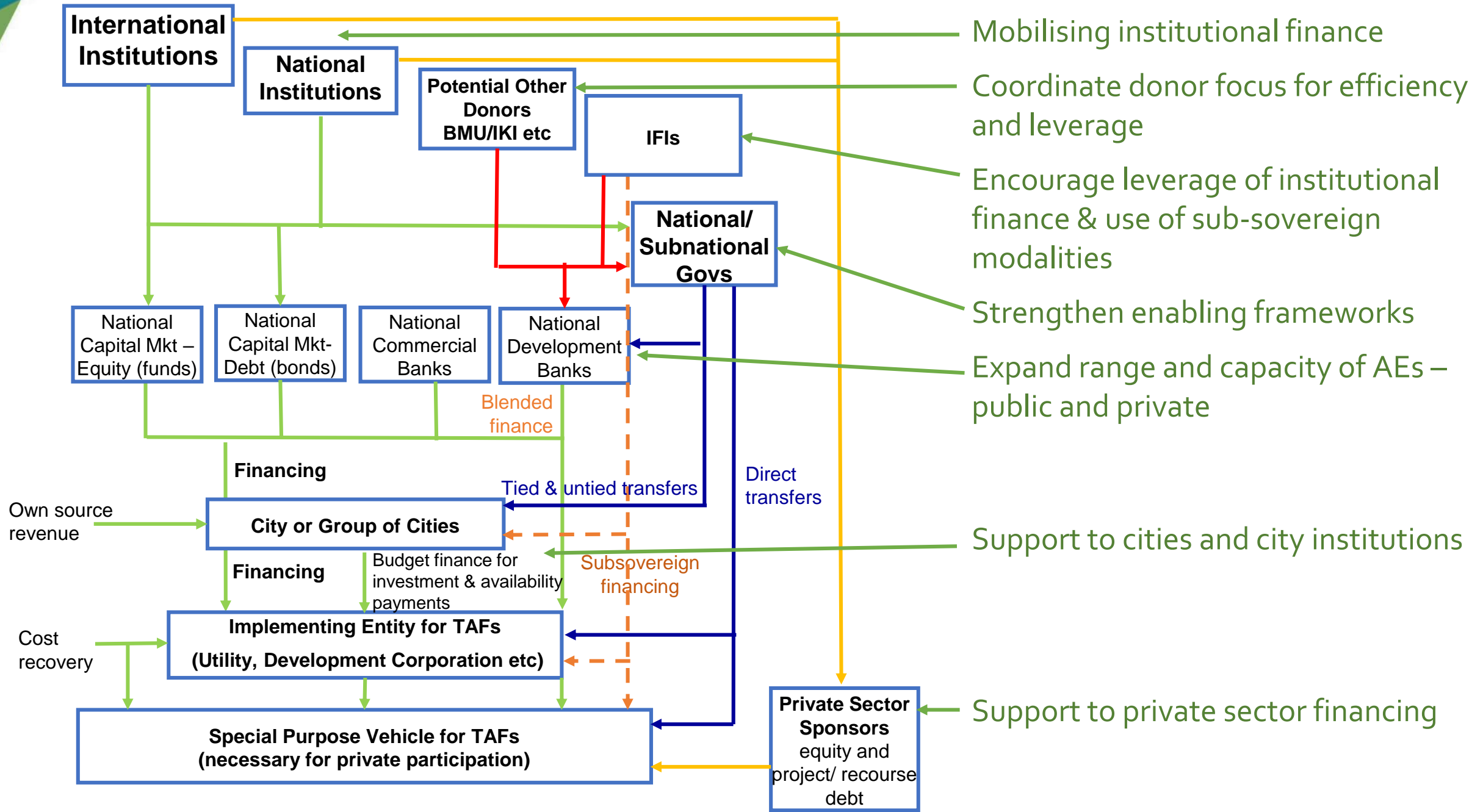
- New business models that reduce upfront capital cost requirements and tap new revenue sources (ex: pay-as-you-go schemes; land value capture, etc.)
- Support to integrated implementation of new technologies
- New institutions (ESCOs, etc.)
- New urban development models (TOD, etc.)
- New legislation (producer responsibility)

- Increased access to of cities and city institutions to domestic and international capital markets through
- Support to pipeline development at scale
- Catalyse and participate in private sector funding vehicles eg SPVs for PPPs
- Targeted investments in catalytic funds, city raisings and PPP structures
- Support to direct access AEs (especially NDBs) in subnational climate financing
- Mechanisms to enhance the use of blended finance, subsovereign finance and mechanisms to leverage the private sector to work for cities – especially in SIDS and LDCs
- Mobilisation of national and global PIC funds through capital markets
- Incentivise IFIs to leverage resources and to incentivize efficiency and innovation

- Developing knowledge products on business models through the Community of Practice for each TAF
- Utilise partnerships within CCFLA to upscale action on project development, PIC financing and NDBs
- Partner with other agencies & networks to maximise knowledge feedback / learning loops in each TAF sector
- Effectively disseminate knowledge through GCF knowledge repository and networking events

GCF & CITY FINANCE

GCF Urban Action Areas



EMERGING GCF **IMPACT AREAS**



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WHAT

HOW

MEANS OF IMPLEMENTATION

Shift path dependencies
emission and resilience
trajectories of intermediary
cities esp. in LDCs/ SIDs

Work on urban
planning, infra policies
and enabling
environments

Focus on country context
and policy tools;
readiness support and
NAPs with PPF

Reduce emissions and
increase resilience in
megacities

Targeted projects with
substantial impact
potential

Retrofitting cities;
Strategic partnership to
identify projects

Decentralized access to
finance / GCF Guarantee
instrument

Partnerships with
project preparation and
planning partners

Sub-national finance;
More focus on DAEs and
leverage of private sector

EMERGING GCF **STRUCTURAL FOCUS 2022/ GCF2**



WHAT

HOW

MEANS OF IMPLEMENTATION

Programmatic financing to upscale both impact & scope of interventions **esp for adaptation**

In partnership with AEs, build capacity to generate quality project pipelines

Focus on use of multi-sectoral (multi-country) facilities

Improve the leverage of private sector financing

Engage with AEs to foster development of projects suitable for private investors

Structure to include private & institutional funds at facility & project levels

Deployment of financing structures that mobilise new sources of capital

Partnerships with cities, AEs & private sector to build needed structures

Development of pilot city carbon markets/ guarantee facilities

Sub-national finance; More focus on DAEs – both public and private institutions

Institutional support to NDBs & other national FIs to act as catalyst to above activities

Building climate project development, structuring & implementation support capacity

Effective financing partnerships

Engage with IFI TA, development assistance & city networks on programs

Coordination of resource deployment into planning & financing/ knowledge work



THANK YOU