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Regional: Advancing Inclusive and Resilient Urban Development Targeted at the Urban Poor

Knowledge Note: Financing Resilience for the Urban Poor in Asia

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Key Points

Urban areas in Asia are severely impacted by a changing climate. These impacts are extracting a heavy economic toll and will be felt disproportionately by the urban poor. Many countries in the region lack adequate resources for enhancing resilience. The situation is exacerbated by poor coordination between institutions accessing and managing climate finance, low capacity of government staff, and fissures in processes of decentralization.

These challenges need to be overcome through the enhanced investment of public and private finance into building resilience of the urban poor. This would include the use of innovative financing mechanisms such as resilient municipal bonds, land value capture schemes, and urban poor funds. Additionally, key stakeholders within a city must come together for joined up action and investment planning and mainstream climate risk into urban development processes. This will require building the capacity of cities to plan for, access, deliver, monitor and report on climate finance, both international and domestic, in ways that are catalytic and fully integrated with national development priorities.

Several key investment opportunities exist to enable cities in Asia to access and manage climate finance in order to build resilience for the urban poor. This includes technical assistance for cities to design, develop and deploy innovative financing mechanisms, catalyze private sector investment, develop coordination structures, strengthen the policy architecture for mainstreaming risk in urban development and for putting the appropriate financial management and accountability systems in place.

A. Introduction

1. Countries throughout south and southeast Asia are grappling with the impacts of a changing climate. Many of these are encapsulated in Bangladesh, Indonesia, and the Philippines, which have faced a range of shocks and stresses that are likely to increase in frequency and intensity in the future. At the same time, these countries are highly urbanized: 37%, 56%, and 47% of the population of Bangladesh, Indonesia and Philippines reside in urban areas, respectively. The urban population in Bangladesh is growing at 3.5% per annum, in Indonesia, this figure stands at 2.3% and for the Philippines it is 1.9% - all higher than the global average of 1.9%.¹ Large numbers of those living in the urban areas of these countries are poor and vulnerable: 49% of all urban residents in Bangladesh, 31% in Indonesia and 43% in the Philippines live in slums.² Urban areas also concentrate infrastructure and assets leading to a high level of exposure to shocks and stresses. Therefore, enhancing the resilience of the urban areas and the poor residing within these to the impacts of climate change is a priority in these countries. This requires a number of multiple and interacting responses, which in turn are hinged on the provision of adequate resources. This is why, it is important to enhance the ability of these countries to access and manage climate finance for building resilience. This refers to local, national or transnational financing—drawn from public, private and alternative sources of financing—that seeks to support climate change mitigation and adaptation actions.³

B. The Challenge

2. There is a strong rationale for enhanced climate finance flows to these countries and a number of key issues need to be considered to enable this.

1. Climate change and its impact on poverty

3. **All three countries are severely impacted by shocks and stresses emanating from a changing climate.** Bangladesh is frequently identified as one of the most vulnerable countries to disasters and climate change. The location and geography of the country contribute to the wide range of hazards that are experienced. The country is low-lying with an extensive coastline: most of it is less than 10 meters above sea level, and 10% is less than one meter above sea level – locations which are exposed both to sea level rise and frequent tropical cyclones that are often accompanied by storm surges. Bangladesh is highly vulnerable to flooding, with 80% of its surface forming a giant floodplain. It is also heavily affected by cyclones, with about 10% of the world's tropical cyclones forming in the Bay of Bengal and more than 40% of global fatalities due to cyclones occurring in Bangladesh. These impacts are reflected in the urban areas across the country too. For instance, sea level rise is expected to lead to saline intrusion that will negatively impact the supply of fresh water to cities, especially many areas of Barisal, Chittagong, and Khulna; and as for flooding 20 of Dhaka's 90 municipal wards are highly vulnerable to inundation.⁴ The Philippines too suffers numerous impacts of climate change. The

¹ World Bank. 2021. <https://data.worldbank.org/indicator/SP.URB.GROW>; Government of Bangladesh. Bangladesh Bureau of Statistics. 2014. Preliminary Report on the Census of Slum Areas and Floating Population 2014 Dhaka: Statistics and Informatics Division, Ministry of Planning.

² World Bank. 2021b. <https://data.worldbank.org/indicator/EN.POP.SLUM.UR.ZS?locations=BD-ID-PH>

³ United Nations Framework Convention on Climate Change. 2021. <https://unfccc.int/topics/climate-finance/the-big-picture/introduction-to-climate-finance>

⁴ Mohal, N. & Hossain M. M. A. (2007). Investigating the Impact of Relative Sea Level Rise on Coastal Communities and their Livelihoods in Bangladesh. Draft Final Report. Dhaka: Institute of Water Modeling (IWM) and Center for Environmental and Geographic Information Services (CEGIS); Kamalkar, A., McSweeney, C., New, M., and Lizcano, G. (2012). *UNDP Climate Change Country Profiles*. Retrieved on 22nd Feb 2021, from

temperatures in the country have been consistently rising and warm periods can be 13 days longer in the early future (until 2039) with coastal regions in the Visayas projected to have 342 more warm days in the mid-future (until 2065), with the entire country experiencing warm days in the late future (until 2099). Historically, the country has been battered by the impacts of cyclones and trends indicate a gradual increase in cyclone intensity that is likely to continue into the future. It is expected that the projected increase in the intensity of tropical cyclones will be accompanied by larger storm surges and larger wind driven waves. The storm surges are projected to be larger spatially and vertically. Rising sea levels will also impact the country and could rise up to 1000 mm by the end of the century (under a high emissions scenario). These trends are borne out in the urban areas of the country too as the very large population of Manila is projected to be impacted by this mean temperature increase in the medium term (2046-2064) time frame and recent mapping of the spatial extent of the impact of storm surges on the Manila coastline shows potential flooding inundation to elevations of 4m to 6m over very large areas of the city.⁵ Indonesia too is one of the worst affected countries due to climate change. The temperature in the country may increase by up to 3.5 degrees Celsius by the end of the century (under a high emissions scenario). Annual precipitation is expected to increase across the majority of the Indonesian islands, except in southern Indonesia where it is projected to decline by up to 15%.⁶ With a long coastline of 99,093 km, a huge number of small islands, and 42 million people living on low-lying land urban areas less than 10 meters above sea level, sea-level rise is a huge threat to Indonesia. Sea-level rise is projected to reach 35 cm-40 cm in 2050, relative to year 2000.⁷ Changes in ENSO variation will increase the height of waves from 2 meters to 5 meters. During the period 2010-2017, there were 887 hydrometeorological disasters; while in the same period, there were 64 incidences of geological disasters. The types of hydrometeorological disasters with the largest increase in the number of events during the 2010-2017 period were whirlwind (363 events), forest and land fires (346 events), landslides (145 events), floods (105 events), and tidal waves / abrasion (17 events). These trends are borne out in urban areas too as major urban centers in the country have been affected by tropical cyclones in the recent past⁸ and the number of reported floods in 92 Indonesian cities increased 200% from 50 in 2006, to 146 in 2017.⁹

4. These impacts of climate change are extracting a heavy economic toll in these countries. The International Monetary Fund (IMF) estimates that Bangladesh's annual Gross Domestic Product (GDP) losses from such events averaged at 1.8% between 1990 and 2008, and this is expected to increase as a result of climate change.¹⁰ The Government's 8th Five Year Plan indicates that the combined effects of moderate climate change could cause an average loss of about 1.3% in the growth of GDP per year until FY2041.¹¹ Other projections suggest that the annual economic costs of climate change in Bangladesh will be equivalent to 2% of its GDP by 2050 and around 9.4% by 2100.¹² These estimates point to the fact that Bangladesh's journey to

https://www.geog.ox.ac.uk/research/climate/projects/undp-cp/UNDP_reports/Bangladesh/Bangladesh.hires.report.pdf

⁵ Tablazon, J., et al. 2015. Probabilistic storm surge inundation maps for Metro Manila based on Philippine public storm warning signals. *Natural Hazards and Earth System Sciences*, 15, 557-570.

⁶ World Bank. 2020. *Climate Data Projections*. World Bank Group. Available at: <https://bit.ly/2ZqIkHu> [Accessed 20th May 2020]

⁷ Government of Indonesia. Ministry of National Development Planning (BAPPENAS). 2013. *National Action Plan for Climate Change Adaptation (RAN-API) Synthesis Report*. Jakarta

⁸ Sipahutar, T. and Aditya, A. 2020. *Jakarta Hit by Flooding as Cyclones Trigger Extreme Rainfall*. Bloomberg Quint. Available at: <https://bit.ly/38JHUV4> [Accessed 26th May 2020]

⁹ Vun, J., Kryspin-Watson, J., and Alyono, K. 2019. *Urban flood resilience in Indonesia: New approaches through an urban design lens*. World Bank Blogs. Available at: <https://bit.ly/301TE8b> [Accessed 28th May 2020]

¹⁰ International Monetary Fund. 2019. *IMF Country Focus: Bangladesh prepares for a changing climate*.

¹¹ Government of Bangladesh. 8th Five-Year Plan July 2020-June 2025. <https://oldweb.lged.gov.bd/UploadedDocument/UnitPublication/1/1166/8FYP.pdf>

¹² Asian Development Bank. 2014. *Bangladesh Could See Climate Change Losses Reach Over 9% Of GDP - Report*

graduate from Least Developed Country status is likely to be hindered as a result of climate change. The Philippines too faces these economic impacts as extreme weather and hazard incidents resulted in some 23,000 deaths with 125 million individuals affected, and aggregated socioeconomic damages amounting to \$20 billion from 2000 to 2016.¹³ Other estimates argue that climate change is projected to reduce long-term economic growth in the Philippines by 0.02% per year, which equates to a 3.8% reduction in gross domestic product (GDP) in 2050.¹⁴ Climate change impacts will affect the Indonesian economy. The Ministry of National Development Planning estimates that by the year 2024, the potential loss in gross domestic product due to climate change will amount to about Rp115 trillion. A study undertaken by the United States Agency for International Development examines the interaction of climate change with agriculture, health, and gradual sea level rise finds that the total costs imposed on Indonesia in 2050 by climate change are estimated at 132 trillion Indonesian rupiahs (\$9.2 billion) (non-cumulative).¹⁵ Fifty-three percent (53%) of this loss is due to decreasing agricultural yields, and climate impacts on health accounts for another 34%. Along with a decline in GDP, an increase in the consumer price index (due to climate-induced food shortages among other issues) is also likely to negatively impact the Indonesian economy.¹⁶ This is particularly important in the context of urban areas as these areas are the drivers of economic growth.

5. These impacts will be felt disproportionately by the poor as they live in hazardous areas and rely on climate-sensitive livelihoods. The poor are also more vulnerable to climate impacts as they lack the means to effectively respond to climate induced shocks and stresses. While poverty incidence in Bangladesh declined from 35.2% in 2000 to 18.9% in 2016, a substantial number of urban residents (approximately 10 million) still live in poverty.¹⁷ As of 2018, there are more people living in extreme poverty in urban Bangladesh (3.3 million) than in 2010 (3 million).¹⁸ Inequality has also increased in the country and stood at 0.482 in 2016, up from 0.458 in 2010.¹⁹ This trend is also reflected in urban areas of the country where income inequality has increased by 10% and “for the bottom 20% of the urban population, their share of income has slipped by 0.3%.”²⁰ Apart from income, inequality is also apparent in other ways, for instance, 30% of Dhaka’s population occupies less than 1% of the total land area. Similarly, in the Philippines, the full year poverty incidence among the Filipino population, or the proportion of people whose per capita income is not sufficient to meet their basic food and non-food needs, was estimated at 16.6% in 2018. This translates to 17.6 million Filipinos who lived below the poverty threshold estimated at PhP10,727, on average, for a family of five per month.²¹ The poverty incidence of people living in urban areas has been declining, from 6.3 million people (9.3% of the urban population) in 2015 to 5.0 million people (9.3%) in 2018; over the same period, the number of ‘food poor’ individuals in urban areas also declined, from 2.1 million (4.4%) to 1.4

¹³ CARE, et al. 2020. *Climate Finance Adaptation Study Report: Philippines*. <https://careclimatechange.org/wp-content/uploads/2021/01/Philippines-Climate-Adaptation-Finance-Tracking-.pdf>

¹⁴ M. Rosegrant, et al. 2015. *The Economywide Impacts of Climate Change on Philippine Agriculture*. Project Policy Note 1. <https://www.ctc-n.org/sites/www.ctc-n.org/files/129755.pdf> ; <https://pubs.iied.org/10178IIED>

¹⁵ Hecht, J., (2016). *Indonesia: Costs of Climate Change 2050*. Washington D.C.: United States Agency for International Development. Available at: <https://bit.ly/2Zh4WGA>

¹⁶ R. Oktaviani, et al. 2011. *The impact of global climate change on the Indonesian economy*. Washington D.C.: International Food Policy Research Institute. Available at: <https://bit.ly/3iPPH8Z>

¹⁷ World Bank, *World Development Indicators*

¹⁸ World Bank (2018). [Bangladesh Development Update: Building on Resilience](#), page 23.

¹⁹ M. Mazid. 2019. Bangladesh: The state of income inequality. The Financial Express. 19 October. <https://thefinancialexpress.com.bd/views/bangladesh-the-state-of-income-inequality-1571497852>

²⁰ I. Ahmed. 2014. Factors in Building Resilience in Urban Slums of Dhaka, Bangladesh. https://www.researchgate.net/publication/275541203_Factors_in_Building_Resilience_in_Urban_Slums_of_Dhaka_Bangladesh

²¹ Government of the Philippines. Philippine Statistics Authority. Updated 2015 and 2018 Full Year Poverty Statistics. <https://psa.gov.ph/poverty-press-releases/data>

million (2.6%).²² Despite these trends, the number of informal settler families increased from 475,000 in 2000 to 664,000 in 2015, with Metro Manila accounting for 36% of this. Indonesia too has made gains in poverty reduction but 9.7% of the country's population (i.e., 25.7 million people) are poor.²³ Forty percent of Indonesia's poor (10.13 million people) live in urban areas – this proportion will rise to 60% by 2025. In addition, 8.2% of the country's urban population is also understood to be 'near poor' (between the poverty line and 20% above it) and are in constant danger of dipping into poverty.²⁴ Between 2014 to 2018, urban poverty declined from 8.2% to 7% and close to 200,000 urban residents were lifted out of poverty²⁵. Inequality has risen in the country in recent years, with rates higher in urban areas.

2. Financing Gaps

6. **Despite the impacts of climate change in these contexts and the economic toll that these have had, the countries lack adequate resources for enhancing resilience.** Estimates for the amount of resources required for adapting to climate change vary based on the underlying assumptions. One estimate argues that over a five year period (between 2009-2013), Bangladesh needed \$5 billion for climate related activities but managed to leverage \$1 billion from the major climate funds.²⁶ The country has also been a global leader in 'climate budgeting' - i.e. the process of ensuring that the climate relevance of planned budgetary allocations is determined annually to ensure that more and more of the budget can be invested in actions that support adaptation. However, experts have pointed out that the share of climate relevant spending is not growing fast enough to account for the impacts of climate change in the country.²⁷ Indonesia too suffers from substantial gaps in finance for climate action. The country needs an estimated \$247 billion to meet its NDC targets by 2030 (spanning adaptation and mitigation).²⁸ This means that the government would need \$19 billion/year to reach this target. In the past five years the government has allocated about \$6 billion/year from the state budget towards this but even with international funding the country is woefully short of meeting its climate finance needs. The Philippines faces a similar situation: between 2013-2017 climate finance to the tune of \$4.3 billion was committed in the country with 44% (or \$1.9 billion) of this earmarked for adaptation over this period (footnote 13). In contrast, by some estimates, the country needs up to \$1.47 billion every year for adapting to the impacts of a changing climate.²⁹

7. **While the gaps in financing for adaptation at the national level are acute, the situation for financing needs at the local level or at the urban scale is even more dire.** Robust statistics on the amount of finance being invested in activities that contribute to urban

²² Government of the Philippines. Philippines Statistics Authority. Updated 2015 and 2018 Full Year Poverty Statistics. <https://psa.gov.ph/poverty-press-releases/data>

²³ Government of Indonesia. Cabinet Secretariat of the Republic of Indonesia (2020). *BPS: Poverty Rate in Indonesia Decreases*. [online] Cabinet Secretariat of the Republic of Indonesia. <https://bit.ly/38PPunZ> [Accessed on 11th March 2020]

²⁴ Baker, J., et al. 2013. *Indonesia-Urban poverty and program review*. Jakarta: The World Bank. <https://bit.ly/2DtjESp> [Accessed on 13th March 2020]

²⁵ Izzati, R. and Dartanto, T., (2018). *Fact Check: Has the rate of rural poverty in Indonesia declined twice as much as in the cities?* The Conversation. <https://bit.ly/38Mf9xT> [Accessed 1st May 2020]

²⁶ Pervin et al. 2014. <https://www.jstor.org/stable/pdf/resrep01574.pdf?refreqid=excelsior%3A68d0b997b6bf556b2b4aa6b8b3bddbef>

²⁷ M. Rahman. 2018. A Civil Society Response to the Bangladesh Climate Budget Report. https://www.researchgate.net/publication/341277392_A_Civil_Society_Response_to_the_Bangladesh_Climate_Budget_Report_A_Civil_Society_Response_to_the_Bangladesh_Climate_Budget_Report

²⁸ Meattle C. and M. Zeki. 2020. Uncovering the Private Climate Finance Landscape in Indonesia. <https://www.climatepolicyinitiative.org/uncovering-the-private-climate-finance-landscape-in-indonesia/>

²⁹ Reuters. 2020. *Indonesia gets U.N. funds to fight climate change, deforestation*. <https://www.reuters.com/article/uk-indonesia-environment-idUKKBN25N1DA>

resilience are not available. However, global analysis indicate that less than 10% of all global climate finance is being invested in cities and that a majority of this supports capital intensive infrastructure development (such as for transportation) aimed at the mitigation of Green House Gasses. Even though the fact of investments in adaptation being substantially less than mitigation is well recognized, less well known is the fact that investments in 'urban' adaptation constitute only a small percentage of adaptation finance.³⁰ These insights are congruent with international assessments that track investments at the 'local level' (spanning urban and rural contexts) and find that these constitute a mere 10% of all climate finance investments globally.³¹

3. Institutional challenges for accessing and managing climate finance

8. **Even though the limited quantity of climate finance is an important problem, there are other challenges as well. These includes the fact that there is a lack of coordination between institutions accessing and managing climate finance or delivering resilience programs in these countries.** This leads to the possibility of duplication and reduced efficiency. In Bangladesh, there are a number of organizations engaged in securing and programming climate finance. With the Economic Relations Division, the Finance Division, the BCCTF, as well as a range of line ministries, all engaged in various aspects of climate finance. This has led analysts to note the need for enhanced coordination capacity in the country.³² This also means that at times the needs of certain groups can fall through the cracks, this is especially true for those living in urban areas given the rural bias of investment patterns in adaptation and resilience.³³ In Indonesia, the need for coordination manifests itself in a different way. While there are substantial efforts to address poverty in the country, (e.g., National Team for Acceleration of Poverty Reduction (TNP2K)) and to address disaster risk (e.g., the National Agency for Disaster Management (BNPB), an organizational structure to oversee the combination of urban, poverty, and resilience does not currently exist. An entity such as this would enhance the ability of different but related programmes to jointly help improve resilience. This does not necessarily mean that a new institution needs to be established but could entail vesting this responsibility with existing entities. For instance, the Fiscal Policy Division of the Ministry of Finance (that has a unit focused on climate finance) could lead on coordination. In the Philippines, urban governance and risk management involves many institutions with overlapping mandates. This results in inefficient institutional coordination for planning, implementation, and operation of infrastructure and services. The need for a coordinating body to oversee the work in a range of departments that are critical to utilizing climate finance for enhancing resilience has been recognised and supported by government. at the highest levels of government.

9. **Apart from the lack of coordination between major institutions and organisations, urban resilience needs to be recognised as a development priority and the capacity of local government actors needs to be enhanced to access and manage climate finance.** Across the global south, municipal governments lack the ability to effectively secure and program climate finance for reducing risk and building resilience, and the situation is no different in Bangladesh. This has led analysts to note it is important to "...develop the capacity of local government bodies to increase understanding of climate change, plan and monitor climate change activities,

³⁰ S. Barnard. 2015. Climate Finance for Cities. ODI Working Paper. No. 419. London: Overseas Development Institute.

³¹ Patel s. et. al. 2020. *Good climate finance guide: lessons for strengthening devolved climate finance*. Working Paper. International Institute for Environment and Development (IIED),. <https://pubs.iied.org/10207iied>

³² IIED. 2014. Climate finance governance in Bangladesh: synergies in the financial landscape. Briefing. April 2014. <https://pubs.iied.org/pdfs/17227IIED.pdf>

³³ M. Roy. 2011. Poverty and climate change in urban Bangladesh (CLIMURB): an analytical framework. https://assets.publishing.service.gov.uk/media/57a08ac3ed915d622c0008c9/60723_bwpi-wp-14811.pdf

efficiently draw down climate finance and disburse resources more effectively”.³⁴ In Indonesia too, much more can be done to enhance readiness of cities to access and manage climate finance for enhancing the resilience of the urban poor.³⁵ For instance, there is a paucity of subnational adaptation and resilience plans and while some cities have benefited from the development of city resilience strategies this has not been done uniformly. This makes it difficult for cities to demonstrate a strategic approach for accessing and managing climate finance. There is also poor information and awareness on sources of climate finance at the local levels, and there are complex institutional arrangements that make it impossible for local governments to access and manage international climate finance without seeking approvals and permissions from higher tiers of government. Moreover, local governments have tended to program the scant climate finance they have received in actions aimed at mitigation and therefore there is also a paucity of understanding on the pathways and actions to enhance resilience, especially for the resilience of the poor.³⁶ In the Philippines, there are gaps in capacity across institutions at all scales but particularly at the local level where due to the lack of data management systems, monitoring and evaluation expertise and awareness on pathways of enhancing resilience, LGUs are unable to access (e.g., due to the inability to prepare funding proposals) and manage climate finance effectively.

4. Governance challenges for accessing and managing climate finance

10. **Across the three countries, there are challenges with regard to the authority and agency of city governments and urban local bodies.** Indonesia adopted a far-reaching decentralization policy in 1999 that grants significant powers to local governments and district governments. Decentralization from the unitary state in the Philippines which began in 1987 was further cemented with the passage of the local government code in 1991 and is considered one of the most far reaching in the world.³⁷ Devolution was supported by increased financial resources from national government transfers and authority to raise revenues from local sources, i.e., from taxes, fees, and charges, which could be potential sources of their own climate finance. In the 1990s, local government in Bangladesh underwent a large-scale administrative reorganization to decentralize power. The Constitution devolved powers to local governments and a suite of legislative texts pertaining to local authority were established. The process began with the 1997 Local Government Act, followed by the Upazila and Zila Parishad Acts of 1998 and 2000. In 2009, the Pourashava and City Corporation Acts were passed. These Acts have given local governments wide responsibilities in town planning and development, public health and sanitation, water supply and sewage disposal, maintenance of public infrastructure and amenities.³⁸ As part of the government’s decentralization policy, both Acts have key roles in the country’s response to climate change and building resilience.

11. **Despite this progress, there remain certain important deficits in decentralization that have a direct impact on their ability to access and manage climate change.** For instance, in Indonesia until 1999, the organization and functioning of all local governments used to be the responsibility of provincial government. However, a law was promulgated to reduce the

³⁴ World Bank. 2016. *Bangladesh: Empowering Local Governments*.

<https://www.worldbank.org/en/results/2016/10/07/bangladesh-empowering-local-governments>

³⁵ Imelda, H., Kuswardono, T., Tumiwa, F. (2017). *Climate Change Financing for Cities in Indonesia*. Jakarta: Institute for Essential Services Reform. <https://bit.ly/38T7HkH>

³⁶ Ampri, I., et al. 2014. *The Landscape of Public Climate Finance in Indonesia*. Indonesia: Climate Policy Institute. <https://bit.ly/2DCWmcY>

³⁷ Guess, G. M. 2005. “Comparative Decentralization Lessons from Pakistan, Indonesia and the Philippines.” *Public Administration Review* 65 (2): 217–230. doi: 10.1111/puar.2005.65.issue-2.

³⁸ ADB. 2014. [Third Urban Governance and Infrastructure Improvement \(Sector\) Project: Municipal Development Sector Development Plan](#).

power of the provincial governments to ensure that they were at par with local governments in their relationship with central governments. This has resulted in heightened conflict between local and provincial governments and reduced their ability to collaborate and coordinate across scales effectively- an element that is essential for effectively accessing and managing climate finance for enhancing urban resilience. The decentralization in this context is fractured where certain functions have been devolved but others are still controlled by higher authorities. The development and planning functions in Dhaka are split between the Mayor and the Capital Development Authority "...which is a 'technical' institution, not accountable to the citizens in the same way as the Mayor or local councilors".³⁹ A disjuncture such as this is antithetical for joined up planning that is essential for accessing and managing climate finance effectively. Also, ULBs in Bangladesh have the ability to discharge a range of functions but all matters pertaining to accessing international climate finance have to be routed through the central government. Essentially, while the City Corporation Act that supports devolved decision making has been passed, the supporting rules, regulations and capacity needed to operationalize this effectively is absent.

C. The Proposed Response

12. The challenges described in the preceding section can be overcome through the provision of finance, improved governance, enhanced capacity and expanded partnerships.

1. Increased financing

13. Cities across the countries that are part of this analysis lack the finance to enhance the resilience of the urban poor. **Various mechanisms exist that can effectively generate finance at the urban scale to build resilience for the urban poor.** A recent review by the Coalition for Urban Transitions identified three high potential urban finance mechanisms that can contribute to urban resilience, including for the poor.⁴⁰ First, national governments can support city/municipal governments in raising finance for investing in interventions for enhancing resilience. Examples include increased local revenue-raising powers such as property taxation and leveraging private capital for certain kinds of investments through municipal debt-financing. In the absence of these powers, funds can be provided by national finance ministries in the form of fiscal transfers (that already take place in most countries part of this study, but this is mostly not earmarked for enhancing resilience) or from international finance institutions such as multilateral development banks. Second, national governments can also create the market and enabling conditions to steer private investment into resilience enhancing investments through a range of instruments including tax and other pricing mechanisms, regulations and standards. There is still the possibility that finances raised will be invested largely in infrastructure (as is the current trend) and that is why there is a need for building the capacity of key stakeholders (more in section 3.3) and for mainstreaming risk across key sectors (more in section 4.4) to ensure that a comprehensive suite of resilience enhancing activities that tackle all components of risk are designed and deployed from the finances raised.

14. Additionally, in some cases, national governments and development partners (where the right mandates are in place) can combine finance by using public finances, first loss guarantees and other instruments to attract private capital into revenue-generating infrastructure assets or debt-financing. There is a plethora of sources of climate finance spanning domestic, international,

³⁹ UNHABITAT. 2014. <http://www.undp.org/content/dam/rbap/docs/Research%20&%20Publications/poverty/RBAP-PR-2014-Urbanization-Climate-Issue-Brief-02.pdf>

⁴⁰ Floater, G., et al. 2017. *Financing the Urban Transition: Policymakers' Summary*. Coalition for Urban Transitions. Washington, DC: World Resources Institute. <https://bit.ly/3ephNLp>

public and private funds. Therefore, there are opportunities for creatively combining different sources to deliver impact on the ground. For instance, ‘first investment’ from climate finance (from national or international sources) could de-risk other forms of financing. A small amount of public climate finance could function as collateral for micro loans given by the private sector to residents of informal settlements to make improvements to their houses that add value and may enhance resilience by strengthening their structural integrity. Similarly, climate finance could be used for providing or subsidizing the premiums of the urban poor (e.g., street vendors) for hazard indexed weather insurance that can be provided by the private sector.⁴¹ Examples of initiatives that employ blended finance exist across the three countries but need to be scaled up. For instance, the ‘One Million Houses Program’ in Indonesia has provided over 3.5 million units of housing for the urban poor by blending different types of finance (from the government, the communities and housing developers) to provide improved housing and basic services (improved water, sanitation and solid waste management) for the urban poor. Similarly, the Department of Health (DOH) in the Philippines is also piloting a blended financing output-based aid (OBA) program for household sanitation. The OBA combines grant (subsidy) and a microfinance loan that minimize the needed cash outlay for households and solves the issues of sourcing capital investments.⁴²

15. These gaps in financing need to be overcome through the use of innovative financing mechanisms. Unfortunately, in countries such as Bangladesh there is a paucity of such innovative approaches and almost all finance for adaptation takes the form of loans, grants or internal allocations from domestic budgets.⁴³ From within these, ‘loans’ are by far the most widely employed modality for delivering international climate finance in Bangladesh that come with attendant challenges of overburdening the already weak recipient government.⁴⁴ The situation in Indonesia and Philippines is not different and the need for new modes of financing resilience for the urban poor has been recognised. This umbrella term can include a range of interventions. For instance, it could include green municipal bonds. Indonesia has successfully demonstrated the potential of green bonds as its own ‘Green Sukuk’ has helped the country raise \$2.5 billion from capital markets exclusively to finance or refinance green projects that contribute to mitigating and adapting to climate change and to preserving biodiversity.⁴⁵ Philippines too has experience of issuing green bonds, in fact the country was the first nation in the ASEAN region to do so.⁴⁶ Despite the recognition that the country is long way from having the enabling environment for issuing bonds, the International Finance Corporation commissioned a detailed analysis of the ‘potential’ for green bonds in Bangladesh that provides evidence of the high potential for this financing modality in the country.⁴⁷ However, these countries are yet to issue municipal bonds specifically for enhancing urban resilience. Lessons can be learned from other cities such as Cape Town that issued the first explicitly resilience-focused municipal green bond in 2017, awarded ‘Green Bond of the Year – local authority’ by the Environmental Finance Green Bond Awards in 2018. Bond proceeds were allocated to improvements in reservoir and water

⁴¹ Patel, R., Walker, G., Bhatt, M. and Pathak, V. 2017. The demand for disaster microinsurance for small businesses in urban slums: the results of surveys in three Indian cities. *PLoS currents*, 9.

⁴² United States Agency for International Development. A Financing Framework for Water Supply and Sanitation in the Philippines. https://www.globalwaters.org/sites/default/files/wash-fin_program_country_brief_philippines_0.pdf

⁴³ K. F. Alam. 2018. State of Climate Finance in Bangladesh (PowerPoint presentation). <http://gobeshona.net/wp-content/uploads/2018/01/Fokhrul-Alam-State-of-Climate-Finance-in-BD.pdf>

⁴⁴ Development Initiatives. 2013. ODA Loans: Investments to end poverty. Discussion paper. http://devinit.org/wp-content/uploads/ODA_loans_discussion_paper_old.pdf

⁴⁵ United Nations Development Programme. 2020. Pioneering the Green Sukuk in Indonesia. <https://www.undp.org/content/undp/en/home/stories/pioneering-the-green-sukok-in-indonesia.html>

⁴⁶ Climate Bonds Initiative. 2020. Green Infrastructure Investment Opportunities: Philippines <https://www.adb.org/sites/default/files/publication/653566/green-infrastructure-investment-philippines-2020.pdf>

⁴⁷ International Finance Corporation and Bangladesh Bank. 2019. *Green Bonds Development in Bangladesh: A Market Landscape*. https://www.bb.org.bd/pub/special/greenbond_dec19.pdf

treatment/distribution systems and flood protection measures in the city. The ability of cities to issue municipal bonds depends on an effective enabling environment (incentives, regulation, technical assistance) that needs to be provided by the national government.

16. **‘Urban Poor Resilience Funds’ are another innovative finance mechanism that could be employed to enhance resilience.** The establishment of these funds would be contingent on government buy-in, development priorities and financing from (national/international, public/private sources). It would entail the establishment of a special purpose vehicle to provide the resources that are necessary for the activities outlined above, with particular incentives for projects that integrate different policy areas and scales. This would be used to provide funding to Local Government Units particularly ones with limited resources – to invest at the city scale in protective actions and infrastructure. It could also be employed to provide direct funding to community organizations to support community planning for resilience and to implement community-scale risk-reducing infrastructure. This could be particularly beneficial if it is linked with existing processes of community savings and community mobilization. Criterion for funding can include income level as well as, risks and vulnerability to natural hazards and climate change. To be effective, such a fund would need a governance structure that includes direct inputs from representatives of the urban poor / NGOs working with the urban poor and that ensures both ‘upwards’ and ‘downwards’ accountability. This will need to ensure representation from across the range of interest groups that speak to different aspects of urban poverty and vulnerability, including health, housing, and gender. The national government can play an important role in providing an impetus to the establishment of these Funds by enshrining their importance in relevant policies, ensuring that any regulations that might hinder their operations are removed and where possible, directly supporting their capitalisation.

17. **Cities must also actively attempt to leverage resources from the private sector for enhancing urban resilience.** Public-private partnerships for resilience need more attention as many cities lack the financial resources to respond to the challenges of enhancing climate change resilience. These could span activities such as delivering service contracts for public sector suppliers as well as full-scale joint ventures and privatization. Local Government and NGOs can support businesses to deliver some of their corporate social responsibility goals, including through collaboration with finance and insurance companies on risk transfer mechanisms for urban communities. Businesses may also develop collaborative initiatives, as the Southern Gujarat Chamber of Commerce & Industry in India illustrated through the formation of the Surat Climate Change Trust in India. The Trust provides a platform where public, private, and civil society actors come together to prioritise adaptation options, seek financial support and define the overall resilience agenda in order to increase the resilience of vulnerable sectors and communities to the adverse impacts of urbanization and climate change.⁴⁸ Once again, national governments have an important role to play in creating an effective enabling environment for private sector engagement through incentives (e.g., tax breaks for investments that deliver resilience benefits) or regulation (e.g., legislation that mandates climate risk screening of investment portfolios).

18. **Another innovative instrument worth considering is ‘land value capture’** where the urban local bodies can invest a small amount in the provision of basic services and infrastructure (including protective infrastructure) in areas marked for development/redevelopment to crowd in private investment for urban development. The taxes from this can be further invested in

⁴⁸ Karanth A and D. Archer. 2014. *Institutionalising mechanisms for building urban climate resilience: experiences from India* <https://www.tandfonline.com/doi/full/10.1080/09614524.2014.911246>

enhancing resilience for the urban poor. This instrument has been used in cities around the world from Ahmedabad, India to Rio de Janeiro, Brazil.⁴⁹

2. Improved Governance and Coordination

19. **Apart from increased finance flows, ensuring that cities can access and manage climate finance also requires improved ‘governance’.** This includes improving the level and nature of decentralization, improving the level of coordination between actors and institutions with a role in enhancing resilience and the need to ensure that climate change is effectively mainstreamed in core development sectors.

20. First, as discussed in the preceding section, despite greater power and authority being allocated to local governments and municipalities, there are fractures and fissures in these processes. As seen in the case of Dhaka, urban local bodies (ULBs) may have authority over only a limited number of functions while other critical functions that shape resilience of the urban poor are still controlled by central authorities. In such cases, it is vital to ensure that processes of decentralization are comprehensive, that is, urban local bodies have authority over all sectors and functions considered vital for urban development. The role of national governments in catalyzing this devolution is essential as mostly this will require national legislative mandates. Where this is not possible, mechanisms to ensure that different agencies that are controlled by local authorities or by higher authorities are able to coordinate actions and work in concert to access climate finance and then to manage urban resilience initiatives, are needed. Certain cities in India such as Indore, Gorakhpur and Surat, have formed City Advisory Committees where stakeholders representing different urban development functions come together to develop resilience plans that can then be supported with finance from a variety of sources (local, national, international or private sector).⁵⁰ Similarly, another good example is the model of the Climate Change Coordination Office in Danang, Vietnam that works across sectors to ensure that climate risk is considered across urban development initiatives, that a coordinated institutional response is mounted to climate induced disturbances, that information is shared across sectors, and to develop proposals for international climate finance for building urban resilience. While these mechanisms will need to be developed at the city level, the conditions for their development can be induced by national governments by enshrining them in policy, through the allocation of funds for their development or by procuring technical assistance for cities to develop these.

21. **Second, apart from coordination between actors and agencies in the same city, there is a need to enhance coordination between cities, between cities and provinces and with central government.** This is because natural hazards may occur outside the local administrative boundaries but may have impacts that cross these; and exposure to hazards may be a result of actions taken elsewhere beyond a particular administrative boundary (e.g. dumping of waste in rivers can lead to flooding in downstream neighborhoods). Interlocal groupings (whether formal metropolitan areas or less formal arrangements) allow for transboundary planning and solutions to entire city regions and can be critical for comprehensive planning to manage cross-boundary issues of climate and disaster risk (including issues related to water, agriculture and marine and coastal ecosystems) that affect the urban poor. Existing institutional architecture should give

⁴⁹ World Bank. Land Value Capture: Investment in Infrastructure (PowerPoint presentation). City Resilience Program. <https://www.gfdrr.org/sites/default/files/publication/Land%20Value%20Capture.pdf>

⁵⁰ Sharma D., R. Singh, and R. Singh. 2013. Urban Climate Resilience: A review of the methodologies adopted under the ACCCRN initiative in Indian cities. https://www.researchgate.net/profile/Rozita-Singh/publication/275521843_Urban_Climate_Resilience_A_review_of_the_methodologies_adopted_under_the_ACCCRN_initiative_in_Indian_cities/links/553e7a530cf210c0bd661/Urban-Climate-Resilience-A-review-of-the-methodologies-adopted-under-the-ACCCRN-initiative-in-Indian-cities.pdf

sufficient importance to this much needed resilience coordination role across levels and administrative boundaries. One approach could be to enable an existing institution to act as a coordinating body and to perform tasks related to (i) coordination of mandates across scales between national and local institutions in order to identify existing programs that contribute to building resilience of the urban poor and ensure that these are harmonized and complementary; (ii) enabling the coordination of activities between districts, particularly in situations where risk and resilience cross local geographic/administrative boundaries; (iii) identification of poverty, socioeconomic and climate and disaster risk data needs and coordinating and facilitating data accessibility to inform projects and programs. The creation of such institutions will enable comprehensive resilience planning (that is an important component of urban climate finance readiness) and ensure that any finance that is accessed is managed efficiently.

22. Third, **while the development of comprehensive and joined-up urban resilience plans is an effective avenue for attracting additional climate finance, it is equally important to ensure that existing public spending also contributes to enhancing resilience of poor and vulnerable urban communities.**⁵¹ This can be achieved by ‘mainstreaming’ the risk of climate change and disasters within core urban sectors such as health, transport, housing, energy, and water. “Mainstreaming refers to the incorporation of climate change considerations into established or on-going development programs, policies or management strategies, rather than developing adaptation initiatives separately.”⁵² Across the three countries, progress on mainstreaming has been uneven. For instance, mainstreaming is not evident in a range of urban planning instruments and spatial plans in Bangladesh. In the Philippines, many of these plans incorporate assessments of disaster risk but could mainstream future climate projections more substantially. In Indonesia, climate change is not mainstreamed into social protection programmes, livelihood schemes or within housing programmes. Ensuring that new initiatives and development within these sectors (e.g., the construction of low-income houses) take the impacts of climate change into account in their design (e.g., changing the design or location of houses by factoring in exposure to climate impacts such as increased flooding) can ensure that these investments are delivering resilience benefits. Apart from integration in core sectoral areas, climate risk must be integrated into local budgets as well. For instance, recently a new initiative was set up to form an association of district governments with strong commitments to address climate change mitigation and adaptation in Indonesia. The initiative is titled the *Lingkar Temu Kabupaten Lestari-LTKL* (Association for District Governments for Sustainability). With the Association’s Secretariat’s assistance, these district governments have initiated, and some even completed in integrating their climate change targets into their local budget process. Such initiatives need to be scaled up across the country and replicated across other countries facing similar challenges. National governments can provide an impetus to this activity by issuing guidelines and by mandating local governments to ensure that public programmes and investments go through screening processes to understand how these will be influenced by climate change. This paves the way for remedial actions aimed at enhancing resilience.

3. Enhancing Capacity

23. **There is a need to build the capacities of cities to plan for, access, deliver, and monitor and report on climate finance, both international and domestic,** in ways that are

⁵¹ Falconer A. and M. Stadelmann. 2015. Five Ways to Build Effective Climate Finance Readiness Programs. Climate Policy Initiative. <https://www.climatepolicyinitiative.org/five-ways-to-build-effective-climate-finance-readiness-programs/>

⁵² (Bockel 2009:7) http://www.fao.org/docs/up/easypol/778/mainstream_clim_change_adaptation_agric_policies_slides_077en.pdf

catalytic and fully integrated with national development priorities.⁵³ These three countries have made strides in strengthening institutional mechanisms, policy instruments, and their finance architecture, yet there is scope to enhance multi-level planning, programming and coordination, improving resource flows to the local level for enhancing resilience.⁵⁴ More specifically, a set of capacities are needed by governments to ensure that cities are able to access and manage finance for enhancing the resilience of the urban poor.

24. **First, those working with or within city and municipal governments need to have an adequate amount of awareness on the degree to which the city is at risk of suffering harm from the impacts of climate change.** This includes collecting compelling evidence on the exposure, vulnerability and hazards that a town or city faces and making it available in appropriate and comprehensible forms. While much more needs to be done to enhance the climate data infrastructure in cities across Bangladesh, Indonesia and Philippines, some data almost always exists that can be used to acquire a basic understanding of climate risk. It is not expected that those in ULBs will become adept in the technical aspects of analyzing climate data: technical experts/consultants (embedded within the ULB where possible) will always be needed for this. It is, however, crucial for them to understand the manner in which climate change interacts with critical urban systems to plan, prioritize and 'own' resilience building actions to be included in plans/proposals for securing climate finance aimed at enhancing urban resilience. Apart from an understanding of climate risk, urban actors must also have an understanding of the sources of climate finance and those that may be more appropriate for their context. This would span an understanding of 'what' the key sources are (across domestic and international sources) and 'how' to access these (the modalities and collaborations essential for accessing this finance).

25. **Second, those working with or within local authorities must also have the authority to access and manage climate finance.** As discussed earlier in the preceding sections, a major impediment for this are fractured processes of decentralization where government organizations overseeing urban service delivery systems lack the agency to access and manage climate finance. As a result of this, local governments do not consider this to be part of their roles and remit, leading to inadequate flows of climate finance to cities (especially for enhancing the resilience of the urban poor). A number of actions taken by national and local governments can remedy this. The responsibility for determining risks, developing resilience building pathways and identifying opportunities for funding (both national and international) can be embedded within the remit and within the charter of city corporations and municipalities more clearly. This may require the promulgation of fresh national guidelines or legislation. At times, the responsibility for accessing and managing climate finance may need to be built into the individual Terms of Reference of particular staff positions within local governments. For instance, the city of Jakarta, Indonesia has appointed the Deputy Governor of the Spatial Planning and Environment Department as the city's 'Chief Resilience Officer'. This city official is charged with developing plans for enhancing resilience and is the focal point for accessing and managing climate finance. This is one example through which authority for this vital function can be vested in a particular individual.

26. **Finally, it also entails enhancing their ability to take action to access and manage climate finance.** A key component of this is developing plans and strategies for enhancing resilience. Finance for enhancing resilience is usually allocated against a comprehensive and

⁵³ Vandeweerd, V., Y. Glelmarrec, and S. Billett. Readiness for Climate Finance: A framework for understanding what it means to be ready to use climate finance. United Nations Development Programme. https://www.undp.org/content/dam/turkey/docs/Publications/EnvSust/UNDP-Readiness_for_Climate_Finance.pdf

⁵⁴ Imelda H., T. Kuswardono, and F. Tumiwa. Climate Change Financing for Cities in Indonesia (Case Study: Kupang) <https://cdkn.org/wp-content/uploads/2017/01/CASE-STUDY-Climate-change-financing-for-cities-in-Indonesia.pdf>

consolidated policy or strategy that allocates responsibilities and provides direction. Unfortunately, most urban centres across the world (especially in developing countries) lack such instruments. This in turn means that they are unable to determine their individual courses of action for urban resilience independent of other levels of government and "...implies that local decision-makers are dependent on regional, national, and international regulatory umbrellas that provide incentives and resources for cities to undertake large-scale climate action,"⁵⁵ Therefore, cities need to develop resilience plans that identify sectors that are at risk, actions to enhance their resilience and include steps to report against progress at regular intervals. At times, the impetus for the development of such plans needs to flow from national level through the issuance of guidelines or policy directives for climate resilient planning. To be successful, these planning processes need to be representative and inclusive and therefore, local governments must have the capacity to convene multiple different stakeholders to develop comprehensive resilience strategies. Strengthening financial and fiduciary management systems, that then permit international donors or the private sector to make investments or grants for enhancing resilience is also key. This includes a whole range of issues including (but not limited to) the institution of financial management systems that are transparent and accountable (including up to date financial information systems); a monitoring and evaluation framework; formal safeguards (environmental, social, and financial); official guidelines and policies (procurement, gender inclusion, ethical, etc.). There are a range of approaches in place to enhance these capacities. For instance, to upgrade the institutional capacity for accessing and managing climate finance, the Government of Indonesia set-up the Centre for Climate Change Financing Policy or the *Pusat Kebijakan Pendanaan Perubahan Iklim dan Multilateral* (PKPPIM) under the Fiscal Policy Agency at the Ministry of Finance. Such institutional models can be replicated across contexts, perhaps with an added focus on building the resilience the urban poor.

D. Priority Investment Actions

27. After having examined the challenges with climate finance and potential responses, this section examines potential initiatives for investment to enhance the ability of these countries to access and manage climate finance for enhancing the resilience of the urban poor.

1. Investing in an enabling environment for innovative public finance

28. As discussed in the preceding sections, less than 10% of all global climate finance is being invested in cities and – of this – a majority supports capital-intensive infrastructure development. Additionally, the scale of financing needed for adaptation in urban areas is so large that international climate finance can never fill this gap. Therefore, cities need to embrace innovative approaches for generating financing for adaptation - this includes resilience bonds, land value capture schemes, and urban poor funds. While there are no major legal hurdles in cities across these countries using these approaches, there is a severe lack of capacity that hinders their adoption.

29. Therefore, **investments in supporting cities to design, develop and deploy these innovative financing mechanisms are likely to deliver impact.** There are numerous examples of this that can be contextualized and replicated. For instance, the Climate Bonds initiative is working with a range of city governments in the US and other countries to develop their capacity to issue green municipal bonds. This includes supporting city governments to identify qualifying green projects and assets, establishing procedures for tracking the use of proceeds, structuring

⁵⁵ Fuhr, H., T. Hickmann, and K. Kern. 2018. *The role of cities in multilevel climate governance: Local climate policies and the 1.5 °C target*. Current Opinion in Environmental Sustainability, 30, 1 – 6.
<https://www.sciencedirect.com/science/article/abs/pii/S1877343517300738>

the bond, acquiring a credit rating and issuing Green City Bonds.⁵⁶ Similar capacity building for urban local bodies in the region can ensure that they can access a greater amount of finance for enhancing resilience. This is especially relevant for the countries in question as Indonesia and Philippines already have experience of issuing green bonds at the national level. Similarly, institutions such as the Urban Poor Fund International (a subsidiary of Slum Dwellers International that provides capital to the urban poor for undertaking important urban improvement and housing projects)⁵⁷ work with cities to establish special purpose vehicles that can draw on a range of resources (including mobilizing community savings) for ensuring that the local actors are able to directly access resources for building their resilience. National governments can facilitate the creation of platforms where institutions such as these can collaborate with urban local bodies across Indonesia, the Philippines and Bangladesh to help unlock additional finance for enhancing resilience of the urban poor.

2. Shaping private sector investments in enhancing resilience of the urban poor

30. **The private sector is an important stakeholder in any discussion on finance for resilience.** While it is difficult to precisely quantify the contributions that this sector is making to adaptation financing, in 2017-2018 this amounted to \$500 million or merely 1.6% of total adaptation spending that year.⁵⁸ Therefore, there is substantial scope for enhancing the participation of the private sector in financing resilience activities and interventions. This can be unlocked in a number of ways.

31. As discussed in the preceding sections, at the national level, countries must have long term adaptation plans in place that provide a set of strategic priorities for action. However, this is not enough and it is important that an ‘investment plan’ is in place that provides a set of projects/interventions that are priced. This must identify ‘bankable projects’ (i.e. that are likely to deliver monetary returns within short to medium timeframes) that are primed for private sector investment. Given this, there is a need to provide project preparation support that includes “...assessing value at risk and return on investment, mapping project cash flow, identifying funding gaps, identifying potential investors, and supporting project structuring and procurement,” (footnote 58). This may also entail coming up with pathways for ‘de-risking’ private sector investment. At this stage, local governments can also use financial incentives to engage the private sector in resilience building. These include supportive changes to business, sales, and property taxes; and/or rebates to promote installation of design features in private infrastructure that incorporate robustness, redundancy, and flexibility, such as flood-proofing or information technology backup systems. In addition, analysts have noted that countries such as Indonesia need to improve and upgrade the regulatory environment for attracting private sector investment in adaptation.⁵⁹ These actions require investments in technical assistance as well as engagement with coalitions such as Asia Investor Group on Climate Change that enable private sector finance for climate action across the region.

⁵⁶ Climate Bonds Initiative. Building a green muni bond market that will finance the development of low carbon and climate resilient US cities <https://www.climatebonds.net/get-involved/green-city-bond-campaign/us>

⁵⁷ Urban Poor Fund International. <http://upfi.info/about/>

⁵⁸ Tall A. et al. 2020. Enabling Private Investment in Climate Adaptation and Resilience : Current Status, Barriers to Investment and Blueprint for Action. World Bank Group and Global Facility for Disaster Reduction and Recovery. <https://reliefweb.int/report/world/enabling-private-investment-climate-adaptation-and-resilience-current-status-barriers>

⁵⁹ Tanzler, D. and M. Maulidia. 2013. Status of Climate Finance in Indonesia. Strengthening Public and Private Climate Finance in Indonesia, Final Report. 2013 https://www.adelphi.de/en/system/files/mediathek/bilder/indonesia_climate-finance-report_giz-adelphi.pdf

3. Institutional structures for coordination within cities for planning resilience investments

32. **Accessing and managing climate finance for enhancing resilience of the urban poor requires robust institutional structures for coordinating across sectors and stakeholders.**

This is because enhancing urban resilience requires the adoption of a 'systems perspective' where interactions between different city systems and the incentives of different urban stakeholders are understood and comprehensive resilience building measures, that span sectors and scales, are developed. This could entail a number of models.

33. For instance, as discussed in the preceding sections, the city of Jakarta, Indonesia has appointed a City Resilience Officer whose job is to coordinate with different urban stakeholders for developing proposals for resilience plans and projects- an essential precursor to investments in urban resilience. Other cities, such as Cirebon, Indonesia have established the Climate Change Working Group (which consists of local government from various agencies and local universities) that supports comprehensive planning and joined-up decision making on resilience investments in the city. Also, as discussed in section 3, in India, the City of Surat has set up a climate change trust that is jointly run by the municipal corporation, the private sector, universities and civil society organizations. The Trust has devised a number of resilience building interventions that have been funded from international climate finance and private sector investments. The development of these structures where they do not exist or revitalizing such structures where they exist but might have fallen into disfunction, requires investment in institutional strengthening, technical assistance and capacity building; and the role of national governments in the provision of these is vital.

4. Strengthening policies and guidelines for mainstreaming climate risk in sectors and budgets

34. **International climate finance or funding for bespoke projects will never suffice for meeting the unmet need for adaptation finance in cities. To achieve comprehensive resilience for the urban poor, it will be essential to ensure that risk is integrated into urban development.** Therefore, ensuring that new roads, bridges, schools, health clinics and housing projects are built to withstand future climate change will ensure that investment in urban development is also delivering resilience benefits. Similarly, mainstreaming climate change into budgets can also unlock finance for resilience. This entails identifying the resilience benefits of planned budgetary expenditure to ensure that over time those items that deliver high resilience benefits are prioritized. This in turn leads to an increasing proportion of public budgets delivering resilience benefits⁶⁰. In fact, Bangladesh, Indonesia and the Philippines have all undertaken climate budgeting processes at the national and (in a more limited manner) at the subnational level, but the need for mainstreaming climate change in city level budgets remains.

35. Mainstreaming climate risk into urban development requires national policies and guidelines to be in place. It also requires a substantial amount of know-how and capacity. This entails understanding current and expected climate impacts, screening development interventions for their exposure and sensitivity to these impacts, developing options for enhancing resilience, costing these options and implementing these actions⁶¹. Unfortunately, city

⁶⁰ Resch, et al. 2017. http://www.acclimatise.uk.com/wp-content/uploads/2018/02/OPM_ACT_LP_finance_for_climate_change_adaptation_FFRG.pdf

⁶¹ Vincent K. and W. Colenbrander. 2018. *Developing and applying a five step process for mainstreaming climate change into local development plans: A case study from Zambia.* <https://www.sciencedirect.com/science/article/pii/S2212096318300068>

governments and urban local bodies across the global south lack this understanding, creating a real need for support, training and development for this.

5. Investing in financial management and accountability systems

36. For cities to attract investments that enhance the resilience of the urban poor, they must demonstrate a high level of 'readiness' for climate finance. Readiness activities "...refer to the processes that can enhance the capacity of developing countries to access, allocate, and spend climate finance, and also monitor and report on the impact of such action,"⁶². This comprises a range of elements that include having a city resilience strategy and coordination (covered in the preceding sections), but also entails putting in place the right financial and fiduciary management systems in place. This in turn is a sum of a range of subcomponents that span the installation of computerized budgeting systems, the institution of standardized accounting frameworks (that facilitate the generation of accurate and timely financial statements), audit committees and a range of policies that enable compliance with environment and social norms. Additionally, city governments must also have the ability to monitor and evaluate the impact of resilience investments.

37. Therefore, ensuring that urban local bodies are 'ready' for accessing and managing finance for resilience makes for another important investment opportunity. While investments in enhancing national level readiness have taken place across Indonesia, Bangladesh and the Philippines, readiness activities at the city level have been relatively overlooked.^{63,64}

E. Conclusion

38. This Knowledge Note has demonstrated that countries throughout Asia are severely impacted by climate change that is extracting a heavy toll on the lives and livelihoods of the urban poor. This is more so because these countries lack adequate resources for enhancing resilience, especially at the city level. This problem is exacerbated by a lack of coordination and capacity amongst key institutions that poses impediments for accessing and managing climate finance. In addition, city governments lack the agency and authority to effectively take action on accessing and managing finance for the resilience of the urban poor. The Note has argued that these challenges need to be overcome through the use of adequate finance through shifts in governance, innovative mechanisms and private sector engagement. Improved decentralization, coordination, planning and sustained capacity building also have a major role to play in enhancing the resilience of the urban poor.

39. While these actions need to take place at the city level, this Note has demonstrated that national governments have a major role to play in creating an 'enabling environment' for financing initiatives for enhancing the resilience of the urban poor. First, national governments can develop policies, guidelines, and directives that provide a framework for cities to plan for, access, deliver,

⁶² Overseas Development Institute and African Climate Finance Hub. 2013. Climate Finance Readiness Preliminary approach and insights from efforts in Southern Africa. Advance discussion draft.

https://unfccc.int/files/cooperation_and_support/financial_mechanism/standing_committee/application/pdf/odi-giz_climate_finance_readiness_-_approach_and_insights_-_southern_africa.pdf

⁶³ Climate & Development Knowledge Network (CDKN) . 2013. PROJECT: Supporting Climate Finance Readiness in Indonesia and Vietnam. https://cdkn.org/project/strengthening-public-and-private-climate-finance-in-asia-2/?loclang=en_gb

⁶⁴ CDKN. 2017. PROJECT: Building Readiness of the Private Sector in Bangladesh for Green Climate Fund (GCF) Accreditation. https://cdkn.org/project/building-readiness-of-the-private-sector-in-bangladesh-for-green-climate-fund-gcf-accreditation/?loclang=en_gb

monitor and report on climate finance. Second, national governments can channel finance to the local level either directly or by providing incentives (e.g. to the private sector) to invest. Third, national governments have an important role to play in ensuring that cities have the capacity they need for accessing and managing finance for urban resilience, through a range of potential approaches spanning trainings, peer to peer learning, and technical assistance. Taken together, these activities will result in public and private investment in the systematic enhancement of resilience for the urban poor.