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

Philippines: Building Resilience of the Urban Poor in the Philippines

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For the Asian Development Bank

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Asian Development Bank



BUILDING RESILIENCE OF THE URBAN POOR IN THE PHILIPPINES

JULY 2022

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Abbreviations

4Ps	<i>Pantawid Pamilyang Pilipino Program</i>
ADB	Asian Development Bank
CBMS	Community-Based Management System
CBO	community-based organization
CCA	climate change adaptation
CCAM-DRR	Climate Change Adaptation and Mitigation and Disaster Risk Reduction
CCC	Climate Change Commission
CDD	community-driven development
CDRA	climate and disaster risk assessment
CLUP	comprehensive land use plan
CMP	Community Mortgage Program
COVID-19	coronavirus disease
CSO	civil society organization
DENR	Department of Environment and Natural Resources
DHSUD	Department of Human Settlements and Urban Development
DILG	Department of the Interior and Local Government
DOH	Department of Health
DOLE	Department of Labor and Employment
DOST	Department of Science and Technology
DOST-PAGASA	DOST Philippine Atmospheric, Geophysical and Astronomical Services Administration
DRRM	Disaster Risk Reduction and Management
DRRMC	Disaster Risk Reduction and Management Council
DRRMP	Disaster Risk Reduction and Management Plan
DSWD	Department of Social Welfare and Development
DTI	Department of Trade and Industry
EPAHP	Enhanced Partnership Against Hunger and Poverty
ESHUT	Environmentally Sustainable and Healthy Urban Transport
FDS	Family Development Sessions
HUC	highly urbanized city
HUDCC	Housing and Urban Development Coordinating Council
ICT	information and communication technology
IPCC	Intergovernmental Panel on Climate Change

ISF	informal settler family
KALAHI-CIDSS	<i>Kapit-Bisig Laban sa Kahirapan</i> - Comprehensive and Integrated Delivery of Social Services - National Community-Driven Development Program
LCCAP	local climate change action plan
LDRRMF	Local Disaster Risk Reduction and Management Fund
LDRRMP	Local Disaster Risk Reduction and Management Plan
LGU	local government unit
MATATAG	Multi-Agency Technical Assistance and Team Advisory Group
MMDA	Metropolitan Manila Development Authority
MSMEs	micro, small, and medium-sized enterprises
NDRRMC	National Disaster Risk Reduction and Management Council
NEDA	National Economic and Development Authority
NGO	nongovernment organization
NHA	National Housing Authority
NISUS	National Informal Settlements Upgrading Strategy
OSH	occupational safety and health
Oplan LIKAS	<i>Oplan Lumikas para Iwas Kalamidad at Sakit</i>
PCUP	Presidential Commission for the Urban Poor
PDP	Philippine Development Plan
PESO	Public Employment Service Office
RA	Republic Act
RCP	Representative Concentration Pathway
RRP	Risk Resiliency Program
RRSP	Risk Resiliency and Sustainability Program
SHFC	Social Housing Finance Corporation
SLP	Sustainable Livelihood Program
TESDA	Technical Education and Skills Development Authority
UHC	Universal Health Care
UN	United Nations



Executive Summary

Building resilience of the urban poor is a critical issue for the Philippines.

The cities and urban municipalities in the Philippines are home to 52% of the total population, with that number expected to reach 62% in 2050. As major drivers of the national economy, people choose to live in cities and urban areas because of the opportunities they present—and this concentration of residents can create significant potential to achieve the country's social and economic goals, such as those stated in *AmBisyon Natin 2040*, the government's long-term development planning vision. The urban poor are an important part of the urban economy, contributing significantly to productivity in both informal and formal sectors. Activities that take place in cities are critical to achieving the Sustainable Development Goals. However, natural hazards and climate change threaten these goals, and may erode the gains that have already been achieved. A failure to build the resilience of the urban poor will have serious impacts, not only for the poor themselves, but for the ability of the country as a whole to develop sustainably and achieve its development goals. The impacts of climate change are expected to worsen in coming years and decades, but the effects that these have on urban residents—particularly the poor—will be shaped by decisions and investments that are made now.

Urban poverty remains a significant concern. The Philippines comprises 146 cities whose population continues to grow more rapidly than the national population. Urban areas are highly varied, ranging from urban barangays in otherwise rural areas to large conurbations or cities. This will shape the nature of risk faced by the urban poor, which arises from the relative accessibility and affordability of safe land and different levels of exposure to hazards. Poverty, being a multidimensional phenomenon, is a significant driver of climate and disaster risk. Poor-quality shelter, inadequate community infrastructure, and insecure livelihoods mean that the urban poor are less able to prepare for shocks and stresses and more likely to be adversely affected. Individuals and families living along shorelines and roadsides, on steep slopes, under traffic bridges, and in flood-prone lowlands are particularly affected. Women are more likely to have to cope with additional household and caring responsibilities in the aftermath of disasters; children, older persons, people with disabilities, and outdoor workers are often more susceptible to the health impacts of climate change. Although poverty incidence is relatively lower in highly urbanized cities, such as those in Metro Manila, the number of informal settler families in this region is markedly high and has been increasing. The less urbanized cities, such as component cities, exhibit higher poverty incidence, which also deserve particular attention in resilience-building efforts targeted at the urban poor.

Disasters and climate change already affect the urban poor and are likely to do so more severely in the future. Temperatures across the Philippines have been rising at an average of 0.1°C per decade, with projections showing a likely increase between 0.9°C and 2.3°C by 2065 (depending on which scenarios are applied). The country is

also expected to experience both a drying trend and localized extreme precipitation in certain areas. The projected increase in the intensity of tropical cyclones will likely be accompanied by larger storm surges and larger wind-driven waves. The sea level has risen by nearly double the global average rate in some parts of the country, and these trends are projected to continue. These changes are likely to particularly affect urban poor settlements that are highly dense and susceptible to the urban heat island effect, or that are located along coasts or other flood-prone areas. Due to disasters and climate change, the poor are likely to become poorer and the near-poor to fall into poverty. The effects of the coronavirus disease (COVID-19) pandemic on the urban poor have highlighted the vulnerability of this group and the need to strengthen their resilience. Climate change is impacting the urban poor through effects on health, damage to housing and neighborhood infrastructure, and undermining of livelihoods. Thus, it is imperative that poverty reduction measures integrate current and future climate risk information and ensure that these benefit the urban poor.

The risks faced by the urban poor are shaped by three key drivers: vulnerability, exposure, and hazard. The vulnerability of the urban poor is largely shaped by the multiple deprivations of poverty, which include (i) limited financial resources to protect against shocks and stresses, (ii) the lack of access to safe housing, (iii) inadequate provision of basic services (including risk-reducing infrastructure), and (iv) governance and accountability failures that result in exclusion and increased vulnerability. At the same time, the exposure of the urban poor to a range of threats is high, largely as a result of unaffordable or inaccessible safe land for housing, and consequently the need to inhabit marginal areas of cities and towns. The hazards that the urban poor encounter are shaped by these locational issues. These include coastal and riverine flooding, the effects of storms and typhoons, droughts, and heat waves—many of which are expected to worsen as a result of climate change. Aside from this risk, the urban poor are also particularly vulnerable to the indirect impacts of climate change and disasters through disruption of critical urban systems. This can erode the adaptive capacity of the urban poor, thereby further increasing their vulnerability to climate risk. It is therefore important to position the resilience of the urban poor within the broader context of urban resilience at the city scale.

Building resilience is an effective response to these risks. It involves going beyond addressing short-term risks, improving existing infrastructure, and adding to business-as-usual planning, by providing opportunities that will enable the urban poor to build their capacities to withstand shocks, stresses, and uncertainty—and eventually get out of poverty. It requires addressing the systemic and structural dimensions of vulnerability and exposure by putting the urban poor at the center of decision-making, engaging with underlying inequalities, and promoting behavior and lifestyle changes. Interventions are required at various scales—household, community, and city—which are complementary and integrated and take into consideration the local context. In case of risk-reducing hard infrastructure, finding complementarities with nature-based solutions to adaptation is necessary as these generate co-benefits around livelihood, reduced pollution, and recreational opportunities for low-income groups.



Interventions along six key policy areas or sectors are essential to build the resilience of the urban poor.

While a range of programs, projects, and activities already exist, these could potentially be made more responsive to the needs of the urban poor and reduce risk. To achieve maximum benefit, interventions need to be integrated and coordinated across policy areas, and purposively directed at producing outcomes that build the adaptive capacity and long-term resilience of the urban poor. Complementary interventions related to social protection, livelihoods, housing, and health can address individual and household vulnerabilities arising from inadequate income and assets, unsafe housing, and lack of access to health and basic services. Community-driven development interventions, such as infrastructure projects that employ community workers, would also serve to augment household incomes and improve access to basic services. In designing spaces for various urban uses, including mobility, urban development plans must take into account access to livelihoods and safe housing, as well as the heat stress impacts on the urban poor. Building resilience will require incorporating climate and disaster considerations in strategies and programs across policy areas, including improving systems, targeting, and financing to support implementation. Interventions might include anticipatory measures that can mitigate the impacts of climate and disaster events, which include raising awareness, preparedness, and capacities at different scales.



Social protection. Social protection has the potential to help reduce exposure to shocks and stresses and mitigate their impacts at the household level. The main social assistance initiative in the country is the *Pantawid Pamilyang Pilipino Program* (4Ps)—a national poverty reduction strategy and human capital investment program. Modifications to this program have the potential to strengthen its focus both on resilience and on the particular challenges faced by the urban poor. These could include integrating “routine” social protection and preparedness actions to facilitate adaptive and shock-responsive social protection and reduce risk. Program coverage can be expanded in urban areas to include the “missing middle”, such as informal workers and the new poor due to the COVID-19 pandemic, recognizing the multiple deprivations of poverty. To ensure the efficient delivery of social assistance, it is important to future-proof operational systems and processes to respond to shocks and put in place pre-agreed sources of funds for adaptive social protection at all levels of government. In addition, viewing social protection as an important adaptation strategy can potentially increase the opportunity for accessing climate finance.



Livelihoods. By generating adequate income for individuals and households, livelihoods play a significant role in ensuring that basic needs are met — helping household build resilience by contributing to the accumulation of assets that can be used in difficult times. Existing programs could be enhanced by focusing on the particular needs of the urban poor and the role of the private sector (particularly micro, small, and medium-sized enterprises or MSMEs) in providing livelihoods. These programs should also ensure that livelihoods are sustainable in the face of disasters and climate change. Specific actions

include studying the potential climate change impacts on the livelihoods of the urban poor, including through appropriate market analysis, to inform the design of livelihood programs; strengthening the capacity of MSMEs, including urban poor workers, to prepare for and recover from climate and disaster events; promoting labor-intensive community-based projects to help diversify the livelihoods of the urban poor; and integrating livelihood interventions, particularly in the informal economy, into the broader urban economic system.



Health. Climate change could potentially introduce additional shocks and stresses on the health of low-income urban residents. As such, health is identified as a priority in key national climate change documents. Conversely, climate change is likewise identified as a priority for the health sector. Responding to these new challenges will require a coordinated and integrated effort among service agencies to identify health risks facing the urban poor and priority interventions to respond to these. New programs that deliver direct support for urban outdoor workers should be developed to address key occupational safety and health issues, including those that improve food security and nutrition for the urban poor. These should be complemented by heightened awareness among the urban poor of climate effects on health, in terms of communicable and noncommunicable diseases, and increased access to health services. To support these, the existing integrated disease surveillance and response system needs strengthening to be able to capture data on climate-related illnesses and sociocultural characteristics of the urban poor. These data can help improve services aimed at addressing climate-sensitive health risks.



Housing and shelter. In both formal and informal settlements, the urban poor often live in inadequate housing usually located in hazard-prone areas and with limited basic services—increasing their exposure to a range of climate- and disaster-related shocks and stresses. The government can support building their resilience by integrating resilient housing (including health standards, social protection, and financial inclusion) into existing policy frameworks and programs, and operationalizing the National Informal Settlements Upgrading Strategy at the local level. It should strengthen the leadership and coordinating roles of local governments in delivering housing services, particularly by providing informal settler families secure tenure and improved community infrastructure in safe urban locations to prevent impending threats of disease and mitigate risk. Housing programs can include affordable ways of making homes and neighborhoods more resilient, such as climate proofing and increasing awareness on climate and disaster risk. Alternative and innovative housing finance modalities, such as microfinance and direct subsidies for the most vulnerable, can be developed and scaled up to support affordable



housing for the urban poor. As necessary, resettlement programs to be developed should be in safe locations and meet the needs of the urban poor, including access to stable livelihoods, health services, and other basic services.



Community-driven development. A range of programmatic responses that come together at the community level through a community-driven development (CDD) approach, including access to basic services, community infrastructure, livelihood, finance, and training, is essential in building the resilience of the urban poor. If implemented for disaster response, CDD has the potential to build resilience more effectively through community engagement and ownership, promotion of social cohesion and gender equality, and generation of jobs for the urban poor. It has proven to be effective in reducing disaster risk, as well as restoring basic services and rebuilding communities after a disaster. Although CDD in the Philippines has predominantly focused on rural areas, considering the best practices and experiences from urban CDD pilots makes contextualizing the CDD approach for urban areas a worthwhile strategy. In developing and designing an investment in urban CDD, factors to consider might include the type of urban areas suitable for this approach; the role and capacity of nongovernment and community-based organizations in the area; support of the local government; and targeting urban areas that are highly exposed to disaster and climate risks and with relatively high poverty incidence, including multidimensional poverty.



Planning and urban development. The overall patterns of urban development and identification of land for housing are guided by formal plans that local governments develop and implement. Many of these had incorporated assessments of disaster risk, and could mainstream future climate projections more substantially and focus more effectively on the needs of the urban poor. Aside from mainstreaming resilience of the urban poor in urban planning and management, actions that could contribute to building resilience building include raising the awareness and capacity of urban planners and social development specialists to incorporate building the resilience of the urban poor into plans, investment programs, and budgets. Local governments and relevant national government agencies should be provided more targeted support to ensure effective plan implementation, such as a standard local data management system or additional databases. This support can include training on applying a resilience lens to prioritize investments for effective use of local disaster management funds and other funding sources. Given the different funding sources at the local level, rationalizing investment programming and budgeting processes is important to maximize resources for climate change adaptation and disaster risk reduction.

The policy interventions and projects identified in these six areas (see Chapter 5) need to be supported by an effective enabling environment that covers governance, data, and finance.



◆ **Governance and institutional arrangements are essential to address the underlying causes and systems that create, reproduce, and sustain exclusion, discrimination, and vulnerability.**

The Philippines has well-established and effective systems of decentralized governance and fiscal arrangements that can be utilized to build the resilience of the urban poor. The role of the National Economic and Development Authority is critical in relation to coordinating activities related to formulating policies, plans, and programs—including those that can build the resilience of the urban poor. Particularly in urban settings, the Department of Human Settlements and Urban Development will be able to contribute to resilience building by fulfilling its mandate on planning and policy making in human settlements, and by formulating and implementing policies, programs, and plans to promote social and economic welfare based on the Philippine New Urban Agenda. There is also a strong civil society that needs to be involved as a key partner in identifying the needs of the urban poor and in implementing projects in a community-driven and participatory manner. More effective urban governance will require a clear focus on the urban poor by agencies that do not explicitly have this in their mandate. Further, greater cooperation across administrative boundaries at the local level will be needed, as well as cross-sectoral collaboration at national and local levels to ensure an integrated approach to building resilience.



◆ **Having appropriate and reliable data on climate and poverty is an essential enabling factor for building resilience of the urban poor.**

Particularly important is analysis that allows an understanding of the present and future distribution of vulnerability, exposure, and hazards across different scales: household, community, and city. Integrating poverty and climate data is particularly important for targeting interventions that build the resilience of the urban poor. While the Philippines has a variety of existing sources of climate and disaster risk information, this information needs to be made available at the relevant scale and to be communicated effectively to relevant stakeholders. Similarly, the country has a variety of existing sources of poverty information. To contribute effectively to building resilience, however, this information needs to take into account a range of variables, recognizing that various factors shape the vulnerability of the urban poor. Specific interventions that could contribute to better climate and urban poverty data might include (i) ensuring a wider range of data available in georeferenced form, (ii) improving information sharing across administrative boundaries and strengthening compatibility



between data systems, and (iii) providing information that is specifically targeted at the urban poor and supports them in making positive decisions to strengthen their resilience.



- ◆ **Building resilience of the urban poor will require additional and refocused finance.** This will involve financing from multiple sources, delivered by a range of institutions, using multiple instruments and complementary approaches; based on good evidence; and monitored and delivered at appropriate volume, subsidiarity, and scale. Financing for urban resilience needs to be identified, stimulated, secured, and sustained for impact, both in individual interventions and also across an ecosystem of urban resilience financing. Climate finance offers significant potential for building pathways to urban resilience, although these funds are limited both in quantity and in the extent to which they can be applied to building the resilience of the urban poor. Indeed, of the substantial climate finance the Philippines has already accessed, little has contributed to building the resilience of the urban poor. The People's Survival Fund demonstrates many features of a fund that can respond to the priorities of urban resilience. Although it is primarily focused on the rural poor, a similar fund could be designed and implemented with a greater urban focus. "Blending" different finance streams has the potential to generate significant positive impacts. This could include inputs from community savings, local and national governments, development partners, impact investors, and the private sector.

Specific entry points provide the basis for a longer-term and strategic response to build the resilience of the urban poor. In addition to general principles, the report identifies a set of strategic entry points that can initiate this process. These interventions will be most effective if managed in a coordinated manner but with the potential to be designed and implemented independently. They will all require a mixture of new institutional arrangements, expanded institutional commitments, and coordination across a range of geographical boundaries and policy mandates. The entry points include the following:



- ◆ **Establish an institutional mechanism to support the resilience of the urban poor.** Addressing the need to bring together the focus on urbanization, poverty, and resilience may include creating a new institution or expanded mandate, with a specific responsibility for overseeing and coordinating the relevant contributions of various government agencies to support building the resilience of the urban poor. The institutional functions may include (i) coordinating mandates across agencies to ensure harmonization and complementation of existing programs at national and local levels; (ii) identifying gaps in existing programs that can be filled; (iii) identifying data needs and coordinating data accessibility to inform programs and projects; (iv) developing project proposals and capacity; (v) providing targeted technical support to communities that are not yet organized and registered with the Presidential Commission for the Urban Poor; (vi) improving the

governance structure to encourage participation and suggestions from multiple stakeholders and developing mechanisms for more effective information sharing with the urban poor; (vii) strengthening cross-boundary and metro-area cooperation, particularly in planning and implementation of projects; and (viii) supporting the specific and specialized tasks identified in the succeeding entry points.



Consider financial mechanisms to support the resilience of the urban poor.

New sources of funds, such as a special purpose fund that is accessible to relevant actors, should be considered to provide resources for incentivizing projects that integrate different policy areas and scales in meeting the needs of the urban poor. The key elements for the special purpose fund might include (i) funding local government units to invest in protective actions and infrastructure identified through participatory planning processes; (ii) funding activities of community organizations that support resilience planning and risk-reducing community infrastructure; (iii) providing funding support to households for resilient housing through microfinance institutions; (iv) institutionalizing a reward system or subsidy to encourage resilient socialized housing or resettlement; (v) forecast-based financing in anticipation of expected shocks and stresses, including slow-onset disasters; (vi) developing the capacity of governments to integrate the results of climate risk assessments in planning and investment programming; and (vii) creating alternative financing instruments, such as green and social bonds, to augment traditional funding.



Make available better data and evidence at different scales.

Robust poverty and climate data at different scales are needed for targeting specific resilience-building interventions, formulating policies, planning, investment programming, developing programs, and implementing actions at various scales. Specific data and evidence-generating activities may include (i) collating existing data in an accessible and georeferenced form enabling overlays of different data types to identify vulnerable areas and households; (ii) expanding data collection to cover additional social characteristics and hazards; (iii) reviewing and standardizing indicators when determining eligibility for targeted interventions, taking into account multidimensional forms of deprivation; (iv) using participatory and community-based processes to generate data where appropriate; (v) developing appropriate frameworks and a set of meaningful categories for more effective planning by reflecting the contextual differences of each location; (vi) presenting data in effective and accessible formats, ensuring that these are understandable and disseminated to the urban poor so they can participate in consultations; and (vii) investing in data collection and platform sharing that addresses the currently fragmented climate and poverty data at different scales.



Strengthen individual resilience of the urban poor by addressing the health dimensions.

As an important component of the resilience of the urban poor, understanding and addressing their health vulnerability in the context of climate change requires improved knowledge to develop specific interventions. These interventions might include (i) conducting detailed epidemiological research to understand their current vulnerabilities resulting from poor health, and future trends in the underlying drivers of health and disease; (ii) undertaking additional research on their health-seeking behavior to support interventions that better reflect their approaches and needs; (iii) focusing attention on what drives their health vulnerability; (iv) understanding the linkages between working conditions and health in the context of climate change, particularly for outdoor workers and workers in the informal economy; (v) paying attention to the linkages between urban form, urban design, urban health, and the opportunities for harnessing co-benefits for climate change adaptation and mitigation, particularly in relation to the urban poor; and (vi) analyzing continued gaps in water and sanitation provision for the urban poor, particularly in cities and municipalities exposed to climate change impacts.



Increase livelihood capacity and opportunities to enhance the resilience of the urban poor.

Understanding the impacts of climate change on urban poor employment and livelihoods is needed to identify appropriate interventions to build urban poor resilience. As their livelihoods are commonly informal and generate meager and unstable income, it is imperative to strengthen their adaptive capacity and increase their access to stable livelihoods. Interventions might include (i) increasing awareness of the urban poor on current and future impacts of climate change on their livelihoods to identify options for strengthening incomes, including training and skills development; (ii) scaling up labor-intensive and community-based public works programs in urban areas, particularly those exposed to natural hazards; (iii) undertaking market analysis to identify value addition of products and services provided by the urban poor to inform the design of new livelihood programs and enhance existing ones; (iv) supporting microfinance institutions in providing MSMEs and the urban poor access to finance to support livelihoods; (v) scaling up targeted support to MSMEs and workers, including disaster risk insurance to MSMEs and microinsurance to workers; and (vi) formulating a common livelihood framework to guide government efforts at integrating climate and disaster-risk livelihood interventions, including those related to occupational health and safety, into the urban economic system.



Improve social protection for the urban poor.

The social protection system in the Philippines already contributes to the resilience of the urban poor. While there is an emerging understanding of adaptive and shock-responsive social protection, the country can develop approaches to make social protection meet the needs of the urban poor. Urban social protection initiatives should integrate climate considerations, including (i) enhancing the *Listahanan*,

also known as the National Household Targeting System for Poverty Reduction, by incorporating disaster risk assessments and harmonizing with other data sources for improved targeting; (ii) designing transfer levels that are of adequate duration and account for high living costs and inflation in urban areas; (iii) linking urban social protection with other services to strengthen *ex ante* resilience; (iv) building the capacity of local government units in planning, implementing, monitoring, and evaluating shock-responsive and adaptive social protection; and (v) developing a supportive enabling environment to strengthen coordination and increase awareness on resilience building through social protection.



Build more resilient housing and communities. This will require coordination of efforts between urban land use planning, infrastructure provision at city and community levels, and housing development, taking into consideration the importance of making housing resilient against current and future hazards, its location, and tenure security. The mandate and powers of the Department of Human Settlements and Urban Development allow it to oversee the process of building more resilient housing and communities, which might involve (i) developing a standardized suite of designs for resilient and affordable housing for the urban poor; (ii) creating appropriate processes and safeguards for relocation where this is necessary due to natural hazards; (iii) identifying and acquiring land meeting the locational needs of the urban poor and suitable for housing development that involves participation of the urban poor; (iv) institutionalizing a reward system for local government units that comply with inventory of lands, identification of lands suitable for social housing, and land acquisition for disaster-resilient housing; (v) technical support to relevant housing agencies for integrating building the resilience of the urban poor into programs, policies, and shelter plans; (vi) involving the urban poor in designing and constructing community infrastructure projects and ensuring that such infrastructure is integrated with citywide infrastructure; and (vii) expanding CDD programs to urban areas through investments in risk-reducing infrastructure and other community-identified subprojects.

All of these entry points need to incorporate crosscutting issues of community participation, gender equality, and nature-based solutions.

Introduction

Chapter

1



Tackling Climate Change and Poverty Reduction Together to Sustain Results

Climate change and disasters pose serious threats to the socioeconomic development of the Philippines and to the well-being of its poorest residents.

The Philippines is among the world's most disaster-prone countries and is highly susceptible to the impacts of both slow- and rapid-onset effects of climate change. With a climate system influenced by its location and geography, the country faces a range of natural hazards, including typhoons, intense storms, flooding, and droughts. It is also experiencing a wide range of climate change-related stresses, such as sea level rise, the impacts of which are gradually unfolding. The country is at high risk from disasters triggered by geophysical hazards, such as earthquakes and volcanoes. The impacts of these shocks and stresses are disproportionately affecting the lives, livelihoods, and well-being of the low-income residents of towns and cities throughout the country. The impacts are worsened by the limited capacity of low-income residents to reduce, cope with, and adapt to the effects of such shocks and stresses, which hinders them from escaping poverty. Thus, building resilience to climate and disaster-related shocks and stresses is essential for sustainable and inclusive urban development and poverty reduction in the Philippines.

Urban areas are a hot spot of climate and disaster risk.

A 2015 risk analysis showed that 21 of the world's 100 cities most exposed to natural hazards are in the Philippines.¹ Various extreme weather events have highlighted the vulnerability of urban areas in the country. In September 2009, Typhoon Ketsana (known locally as Ondoy) brought a month's rainfall in less than a day and submerged large portions of Metropolitan Manila with floods of up to 6 meters deep.² More than 120,000 residents in six of the 16 cities in the capital region were heavily affected by floodwater.³

In December 2011, the rampaging flash floods brought by Typhoon Washi (known locally as Sendong) washed out communities in Cagayan de Oro City in northern Mindanao. This storm left at least 600 dead and impacted another 228,000.⁴ In November 2013, Typhoon Haiyan (known locally as Yolanda), one of the strongest storms recorded in history, destroyed the central Philippines. Tsunami-like storm surges flattened almost the entire coastal city of Tacloban in the province of Leyte, killing more than 2,600 residents and leaving almost 60,000 families without livable homes.⁵ The Philippines was ranked eighth in the WorldRiskIndex in 2021 and ninth in 2020 among 181 countries.⁶

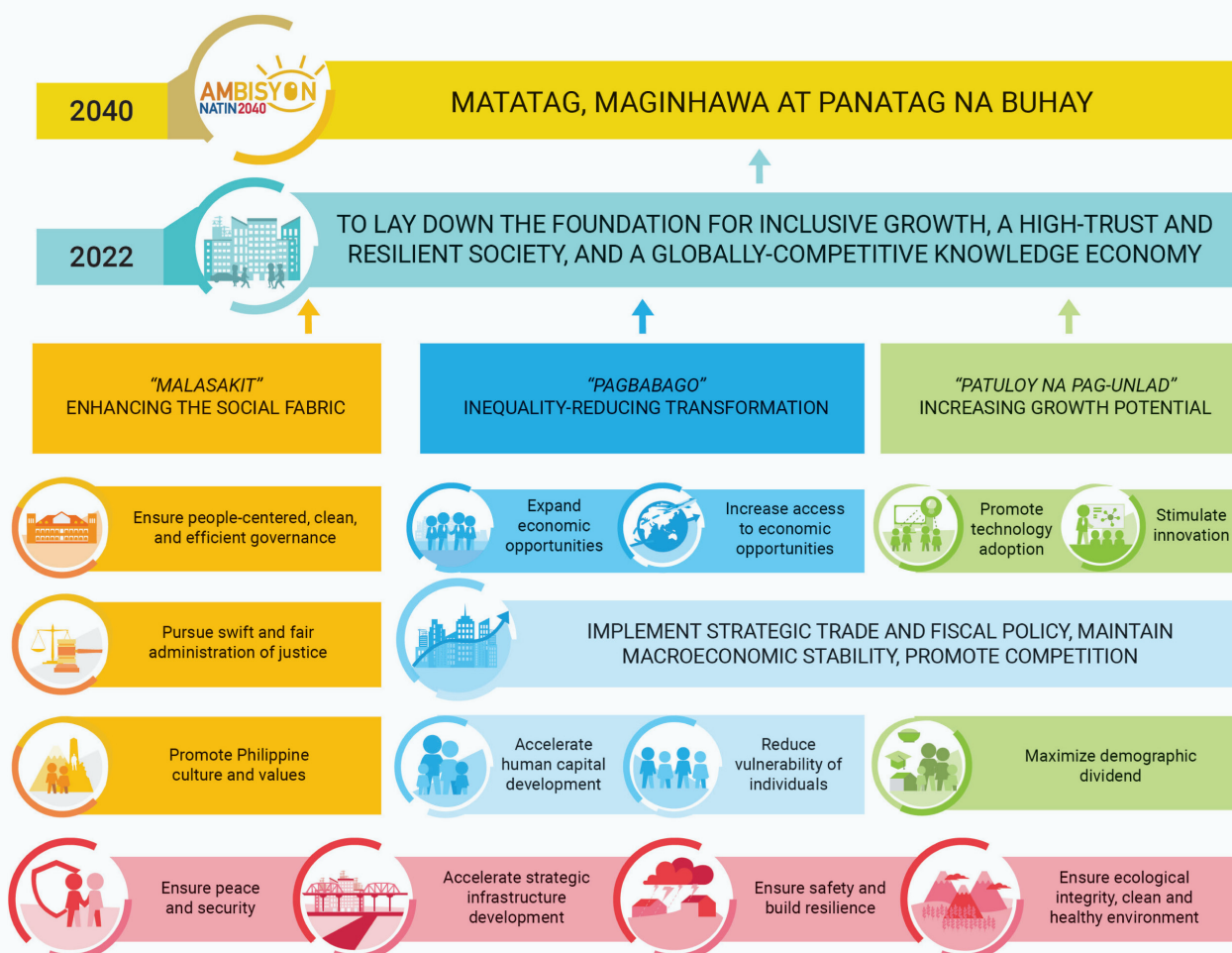
Alignment with national priorities is necessary.

AmBisyon Natin 2040, the government's long-term development plan, and the updated Philippine Development Plan (PDP) 2017–2022,⁷ are anchored on a vision that: “By 2040, the Philippines is a prosperous middle-class society where no one is poor. People live long and healthy lives and are smart and innovative. The country is a high-trust society where families thrive in vibrant, culturally diverse, and resilient communities.” The strategic framework of the PDP guided by *AmBisyon Natin 2040* is presented in Figure 1.1.

The process requires multiple actions across scales and involving different actors.

In considering the resilience of the urban poor, this report highlights the following key principles that have been derived through expert review of the literature and widespread consultation: (i) building the resilience of the urban poor requires interventions at different scales; (ii) multiple key policy areas need to work together to identify interdependencies and work together; (iii) complementarities need to be sought

Figure 1.1: Strategic Framework of the Updated Philippine Development Plan 2017–2022



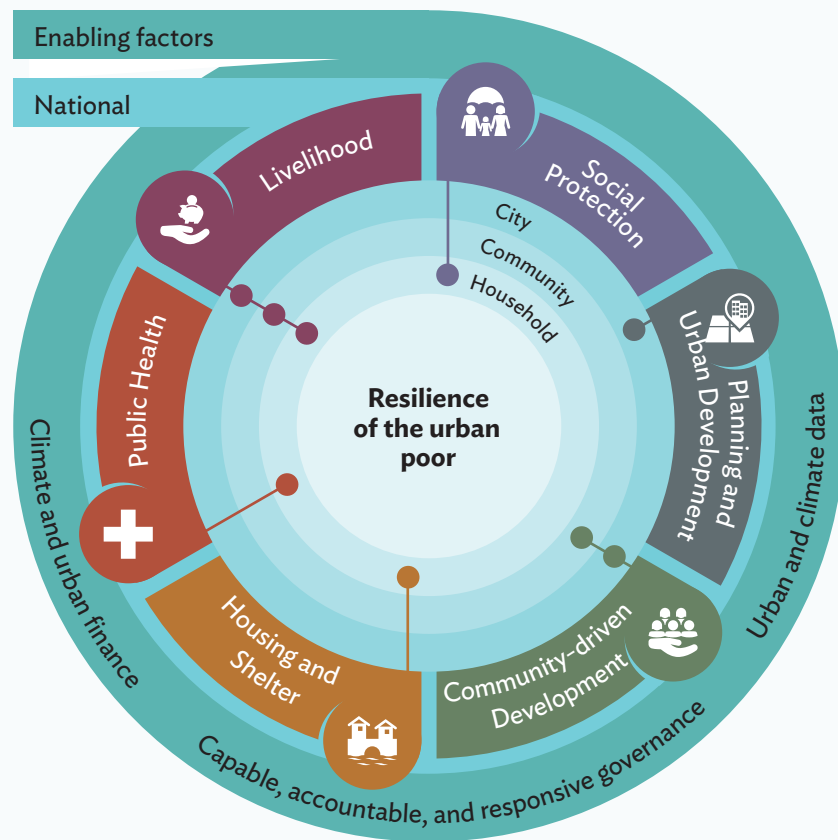
Source: Government of the Philippines, National Economic and Development Authority. 2021. *Updated Philippine Development Plan 2017–2022*. Manila.

between hard infrastructure and nature-based approaches to adaptation; (iv) capable, accountable, and responsive governance is critical for coordinating urban resilience, particularly for this to meet the needs of the poor; (v) actions need to be informed by high-quality climate, disaster, and urban information; (vi) improved resilience of the urban poor requires new forms of financing and better alignment of existing finance; (vii) building the resilience of the urban poor creates additional opportunities; and (viii) building the resilience of the urban poor requires a comprehensive framework.

The framework identifies six policy areas that can secure and sustain resilience.

Of highest priority are adaptive social protection, an effective health system, sustainable livelihoods, safe and affordable housing, community-driven development (including community infrastructure), and planning and urban development (Figure 1.2). These six policy areas can secure and sustain the resilience of the urban poor in the Philippines. The framework enables the identification of opportunities, strategies, and specific entry points within those areas. While each area is critical in its own

Figure 1.2: Applied Framework for Building Resilience of the Urban Poor



Source: Asian Development Bank.

right, they have important interconnections and interdependencies within this framework. For example, links and complementarities between health and social protection will all serve to increase the impact and sustainability of outcomes.

A set of enabling factors is critical for building resilience of the urban poor. A key opportunity is the rapid expansion of urban areas, which presents possibilities of ensuring that new cities and neighborhoods include the tenets of resilience to ensure that the urban poor are better able to withstand climate change-induced shocks and stresses. Another key opportunity is to ensure that new climate policies, programs, financing mechanisms, and activities that are proliferating

speak on the needs of the urban poor to enhance urban resilience comprehensively. Success in each of these areas will be determined by the agents, systems, and institutions that together constitute a set of enabling factors: data, governance, and finance. These factors serve across policy areas, underpinning their success and delivery—for example, ensuring that climate risk and vulnerability data are brought together in targeting interventions or that capability is being built to address resilience at all levels. These factors also require new forms of partnership. These will need to be (i) within government (including across different ministries and line agencies at the national level, and between local governments and national entities); (ii) between government

and nongovernment or civil society organizations that have deep experience and abilities working with the urban poor; and (iii) between government and the private sector, which provides many of the goods and services that low-income urban residents require. The expertise of the private sector in commercial processes such as production, supply, marketing, and distribution could be instructive for public institutions aiming to provide resilience-enhancing services to the urban poor. The expertise of the academic institutions and civil society organizations can also be useful in community organizing, research, and big data analyses, to help local government units (LGUs) make sense of science, ecology, and the sociology of deprivation and poverty in the urban context. Importantly, these factors address the key structural drivers of poverty and vulnerability for the urban poor.

Interventions and principles of subsidiarity need to be scaled appropriately. Success in applying these policy areas, underpinned by

enabling factors, also requires clarity on the scale and scale-appropriate interventions—ensuring that (i) objectives, inputs, and activities are aligned with the appropriate scale of impact, from the household upward; (ii) the principle of subsidiarity (where higher tiers of government share power with governance structures at the local level) is integrated; and (iii) interventions are designed to be scalable and have impact at scale given the size of the country’s urban populations.

Investments on a wide range of topics and from different sources are needed. This framework notes the importance of considering investment by public bodies and through public budgets, by the private sector, and by households and communities themselves that can stimulate or leverage other resources and secure and sustain resources over time. Where these inputs, enabling factors, scales, and investment are working successfully, the states of resilience and positive outcomes for the urban poor, highlighted at the center of the diagram, will be achieved.

About This Report

This country diagnostic report assesses climate- and disaster-related issues that create risk for low-income urban residents in the Philippines and then proposes policy and programming areas to advance inclusive and resilient urban development for the urban poor. These are achieved through an in-depth analysis of the nexus between climate and disaster risk and urban poverty, an assessment of policy areas and interventions that will be required to build resilience of the urban poor, and a review of the enabling factors that are needed to support this.

The report consists of the following key elements:

- Context (Chapters 2 and 3): A description of urbanization and urban poverty in the Philippines, natural hazards, and future climate change.
- Conceptual framework (Chapter 4): The conceptual framework informing the approach that is being taken to building the resilience of the urban poor.
- Supporting resilience of the urban poor (Chapter 5): An analysis of existing policies and programs, focusing on social protection, livelihoods, health, housing and shelter, community-driven development, and

planning and urban development. For each of these areas, the analysis addresses the following questions: What is in place? What are the challenges and gaps? What can be done? This chapter provides the core analysis of the report, linking key policy areas with their potential contribution to building the resilience of the urban poor.

- Enabling resilience of the urban poor (Chapter 6). An examination of the three key enabling factors identified in the conceptual framework (Chapter 4). The first is the governance arrangements that support the development of policy and the implementation of programs; the second is the financial resources and systems to support programming for building the resilience of the urban poor; and the third is the use and application of climate data, including awareness of and ability to apply these.
- Entry points for building resilience (Chapter 7): An identification of the strategic entry points for building the resilience of the urban poor.

In approaching the development of this report, given the multidimensional nature of urban poverty and climate and disaster risk, the Government of the Philippines created the Multi-Agency Technical Assistance and Team Advisory Group (MATATAG) to support and guide the implementation of the TA project in the country.⁸ An extensive consultation process took place with MATATAG member agencies, other national government stakeholders, and selected city governments, including Davao City, Cagayan de Oro City, and Muntinlupa City. Consultations with select development partners and nongovernment organizations (NGOs) were also undertaken to document good practices and programs in urban poverty reduction with linkages to building disaster and climate resilience. The emerging analytical framework was the basis for discussions with MATATAG agencies and other stakeholders. Consultations were also held with community-based organizations (CBOs) and NGOs assisting community-led development initiatives to identify good practices and document challenges in strengthening the resilience of the urban poor.

The Urban Context in the Philippines

Chapter

2



This chapter provides the context for advancing inclusive and resilient urban development targeted at the urban poor in the Philippines. This requires an explicit understanding of urbanization and characteristics of urban poverty, particularly how this relates to climate and disaster risk. Urban poverty is a complex and multidimensional phenomenon that contributes to and is affected by the creation of risk in multiple ways. Efforts to build resilience must therefore take this into account. The chapter reviews the nature of urban poverty in general terms, describing in detail patterns of urbanization and urban poverty, thus enabling an understanding of how these patterns have increased the vulnerability of the urban poor to climate and disaster risks, and the underlying drivers of their vulnerability.

Urbanization Trends in the Philippines

A highly urbanized country. The 2015 census indicates that 51.7 million persons were residing in 7,437 barangays (the smallest political units in the country) classified as urban (compared to 34,599 defined as rural), representing 51% of the total population.⁹ This figure was expected to increase with the total population reaching 109 million in 2020.¹⁰ Projections from the United Nations indicate an increasing trend in the proportion of the country's urban population, reaching 56% in 2040 and 62% in 2050.¹¹ Urban areas are distributed throughout the country, with particular concentrations in and around Metro Manila, Central Visayas, and Davao Region.

Defining urban areas in the Philippines. There is no international consensus on how to determine the boundaries of urban areas, or to identify when a settlement is “urban.” However, urban areas are broadly defined by a mixture of population size, population density, economic activity (particularly nonagricultural livelihoods), and the provision of certain services and functions (e.g., higher-level schools, post offices).¹² The distinction between “rural” and “urban” areas is not always clear; it is often better seen as a gradient (including peri-urban and suburban areas) or as a network (with myriad interconnections of capital, resources, and people). In the Philippines, barangays (villages), even in rural municipalities, are identified as urban when they fall into one of the following categories:¹³

- Category 1: population size of at least 5,000;
- Category 2: presence of establishments with at least 100 employees; and
- Category 3: presence of at least five small establishments (10–99 employees) and at least five facilities within a 2-kilometer radius from the barangay hall.

All barangays in Metro Manila are automatically classified as urban, while some urban barangays can also be located in rural municipalities.

Classification and distribution of cities.

Cities are also placed in different classes:

- A highly urbanized city (HUC) has (i) a minimum population of 200,000 inhabitants, as certified by the National Statistics Office;¹⁴ and (ii) a latest annual income of at least ₱50 million based on 1991 constant prices, as certified by the city treasurer.¹⁵
- An independent component city (ICC) is one whose charter prohibits its voters from voting for provincial elective officials.
- A component city (CC) is one that does not meet the HUC and ICC requirements and is part of the province where it is located and subject to its administrative supervision.¹⁶

As of 2019, there are 146 cities in the Philippines: 108 CCs, 33 HUCs, and 5 ICCs. The island group of Luzon has the biggest number of cities (74), while the Visayas and Mindanao have 39 and 33 cities, respectively. Cities are also categorized into six classes based on average annual income, which bears on a city's financial and fiscal powers, as well as its budget and personnel policies, and overall capability to implement priority programs and projects (Table 2.1.).¹⁷ As of 2021, cities that belong to the first income class comprise 38%. When cities in the first three income classes are lumped together, they account for 72% of total number of cities. Only five cities belong to the sixth or lowest income class—three from Mindanao and one each from Luzon and the Visayas.

Table 2.1: Cities by Income Class, 2021

Income Class	Average Annual Income	No. of Cities	Percent Distribution (%)
1st Class	₱400 million or more	56	38
2nd Class	₱320 million or more but less than ₱400 million	16	11
3rd Class	₱240 million or more but less than ₱320 million	32	22
4th Class	₱160 million or more but less than ₱240 million	27	18
5th Class	₱80 million or more but less than ₱160 million	10	7
6th Class	Below ₱80 million	5	3
Total		146	100

Source: Department of Finance, Bureau of Local Government Finance. 2008. *Income Classification*; and Philippine Statistics Authority. <https://psa.gov.ph/classification/psgc/?q=psgc/cities>.

Table 2.2: Annual Population Growth Rates of Cities, 2000–2020

City	Population			Growth Rate (%)		Change (%)
	2000	2010	2020	2000–2010	2010–2020	
Total Population (Philippines)	76,506,928	92,337,852	109,035,343	1.9	1.7	–12
Population (all cities)	29,945,880	37,292,221	44,603,764	2.2	1.8	–19
Highly urbanized cities (HUCs)	16,292,197	19,861,783	23,146,945	2.0	1.5	–23
Independent component cities	696,815	934,397	1,088,129	3.0	1.5	–48
Component cities	12,956,868	16,496,041	20,368,690	2.4	2.1	–13
HUCs with increasing growth rate						
Metro Manila (top 3)						
Manila	1,581,082	1,652,171	1,846,513	0.4	1.1	154
Malabon	338,855	353,337	380,522	0.4	0.7	77
Mandaluyong	278,474	328,699	425,758	1.7	2.6	57
Outside Metro Manila (top 3)						
Angeles City	267,788	326,336	462,928	2.0	3.6	78
Butuan	267,279	309,709	372,910	1.5	1.9	26
Olongapo	194,260	221,178	260,317	1.3	1.6	26
HUCs with rapid growth						
Metro Manila (top 3)						
Taguig	467,375	644,473	886,722	3.3	3.2	–1
Mandaluyong	278,474	328,699	425,758	1.7	2.6	57
Valenzuela	485,433	575,356	714,978	1.7	2.2	28
Outside Metro Manila (top 3)						
Angeles City	267,788	326,336	462,928	2.0	3.6	78
Lapu-Lapu	217,019	350,467	497,604	4.9	3.6	–27
Puerto Princesa	161,912	222,673	307,079	3.2	3.3	1

Source: Various censuses. Philippine Statistics Authority.

Higher rate of population growth in cities.

From 2010 to 2020, the total population of all cities nationwide increased on average by 19%. These cities host 41% of the total population in 2020. Table 2.2 shows that the population in cities between 2010 and 2020 grew annually at 1.8%, slightly higher than the overall population growth rate (1.7%). Notable is the relatively faster annual population growth in CCs at 2.1%, while the population growth in HUCs is generally on a downtrend—except for some cities such as

Manila, Mandaluyong, Malabon in Metro Manila, and cities of Angeles, Butuan, and Olongapo outside of Metro Manila. The fast-growing. The fast-growing city populations are in Taguig, Mandaluyong, and Valenzuela in Metro Manila, and Angeles City, Lapu-Lapu (Cebu), and Puerto Princesa (Palawan). Populations in cities are likely to continue to grow and therefore contribute to the national economy, while requiring additional policy focus and investment.

Urbanization and Population Dynamics by Region

Significantly varying proportions of people living in cities across the country.

Among the country's 17 regions, Metro Manila is the most urbanized accounting for 12.4% of the country's population in 2020 (Table 2.3) and with about 99.5% of its population living in its 16 HUCs. Davao Region has the next highest proportion of people living in cities (52%). It has Metro Davao that comprises six cities, with Davao City accounting for the biggest land area (2,444 square kilometers) among cities in the region and the rest of cities nationwide. The third most urbanized is CALABARZON region, with 46% of its population living in its 20 cities.¹⁸ Since 2010, CALABARZON has become the biggest region in the country, with its proportion in the country's population increasing from 13.7% in 2010 to 14.9% in 2020. The region has been the fastest in terms of the growth rate of population living in cities. In terms of magnitude, Central Luzon accounts for the third-biggest population in cities, next to CALABARZON and Metro Manila. The size of city populations in Central Luzon and CALABARZON is indicative of peri-urban development and suburbanization, given their proximity to Metro Manila.

Cities, not to mention urban municipalities, have attracted more people due to employment opportunities, amenities, and services, among others, which are not available in other areas.

However, increasing urbanization has posed a challenge to the delivery of basic services. Apart from shortages in potable water and inadequate sanitation coverage (Table 2.4), these areas also suffer from poor waste disposal, inefficient transport, and inadequate drainage systems.

Large cities are in Metro Manila. Five of the largest cities in the country are in Metro Manila: Quezon City, Manila, Caloocan, Taguig, and Pasig (Figure 2.1). Although not the densest because of its huge land area, Quezon City is the most populous, followed by Manila and the metropolitan center Davao City in Mindanao. The fourth and fifth most populous cities are Caloocan (Metro Manila) and Cebu. The other populous cities outside Metro Manila are in Mindanao: Zamboanga City and Cagayan de Oro, the latter being an emerging metropolitan area. Another large city, Antipolo is a component city of Rizal Province that is adjacent to Metro Manila.

Table 2.3: Population in Cities and Number of Cities by Region, 2020

Region	2020 population	No. of cities	City population	Percent Distribution (%)	Population living in cities (%)	City population growth (%)	
						2000–2010	2010–2020
Philippines	109,035,343	146	44,603,764	100.0	40.9	1.9	1.7
Metro Manila	13,484,462	16	13,419,235	30.1	99.5	1.8	1.3
CAR	1,797,660	2	487,391	1.1	27.1	2.5	1.4
Ilocos Region	5,301,139	9	1,031,842	2.3	19.5	1.4	1.0
Cagayan Valley	3,685,744	4	616,535	1.4	16.7	1.5	1.5
Central Luzon	12,422,172	14	3,730,302	8.4	30.0	2.3	2.3
CALABARZON	16,195,042	20	7,456,034	16.7	46.0	3.9	3.0
MIMAROPA	3,228,558	2	452,865	1.0	14.0	2.6	2.7
Bicol Region	6,082,165	7	1,078,976	2.4	17.7	1.7	1.5
Western Visayas	7,954,723	16	2,839,069	6.4	35.7	1.4	1.0
Central Visayas	8,081,988	16	3,501,339	7.8	43.3	2.2	1.8
Eastern Visayas	4,547,150	7	1,047,534	2.3	23.0	1.7	1.2
Zamboanga Peninsula	3,875,576	5	1,541,408	3.5	39.8	2.7	1.8
Northern Mindanao	5,022,768	9	1,975,268	4.4	39.3	2.0	1.6
Davao Region	5,243,536	6	2,735,075	6.1	52.2	2.4	2.0
SOCCSKSARGEN	4,901,486	5	1,487,902	3.3	30.4	2.9	2.3
Caraga	2,804,788	6	895,829	2.0	31.9	1.3	1.6
BARMM	4,404,288	2	307,160	0.7	7.0	3.0	1.8

BARMM = Bangsamoro, Autonomous Region in Muslim Mindanao; CALABARZON = Cavite, Laguna, Batangas, Rizal, Quezon; CAR = Cordillera Administrative Region; CARAGA; MIMAROPA = Mindoro, Marinduque, Romblon, Palawan; SOCCSKSARGEN = South Cotabato, Cotabato, Sultan Kudarat, Sarangani, General Santos City.
Source: Various sources, including Philippine Statistics Authority.

Cities of various sizes are significant in the urban future. Among the 12 urban centers identified in the Philippine National Framework for Physical Planning 2001–2030 as potential economic hubs, Metro Manila, Metro Cebu,

and Metro Davao remain the most prominent. Among secondary cities, Cagayan de Oro is the most populous. As the population is expected to continue growing and urbanizing, especially in those areas outside Metro Manila, urban settlements will

Table 2.4: Selected Urban Indicators in the Philippines, 2000–2017
(% of urban population)

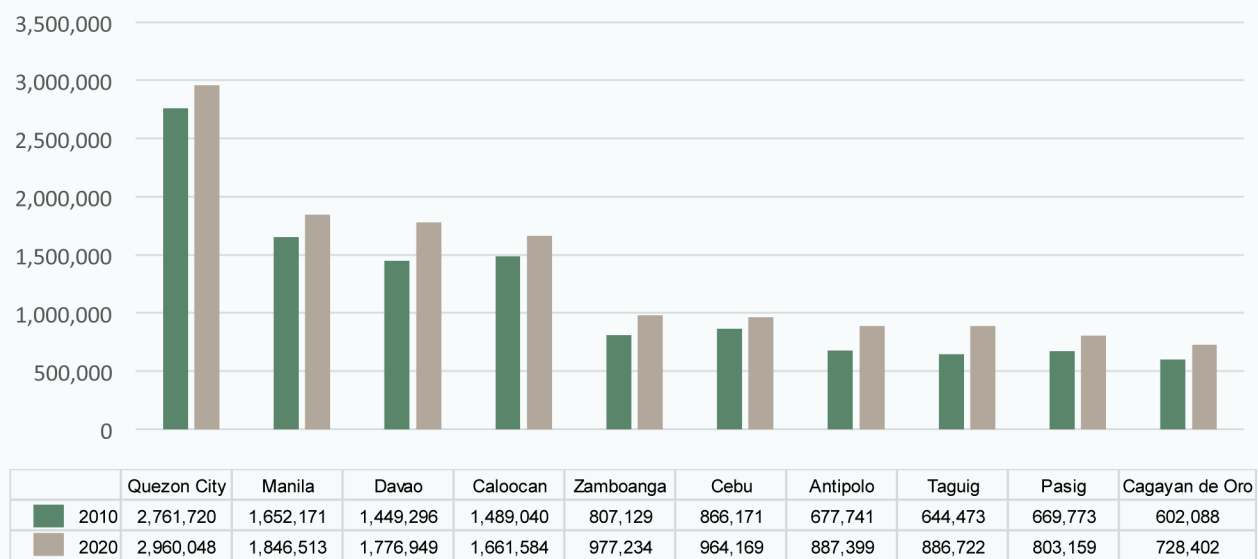
Selected Indicators	2000	2005	2010	2015	2017
Access to electricity*	89.7	91.6	93.8	95.9	96.4
People using safely managed drinking water services	53.1	60.3	60.8	61.3	61.5
People using safely managed sanitation services	48.3	48.9	50.7	53.0	54.0
People with basic handwashing facilities including soap and water	85.1	85.1
People practicing open defecation	5.2	4.6	3.8	3.0	...

... = not available.

* 98% in 2019.

Source: World Bank. World Development Indicators.

Figure 2.1: Population of Major Cities in the Philippines, 2010 and 2020



Source: Philippine Statistics Authority.

further be dispersed across secondary cities and emerging metropolitan areas. However, the greater Metro Manila area is likely to remain the center of economic growth and settlement. While such

dispersed growth across the country can reduce the pressures on Metro Manila, other cities will have to provide resources to avoid merely replicating the challenges faced by the former.

Table 2.5: Population Density by Type of Cities, 2010–2020
(no. of persons per square kilometer)

City	Population Density		
	2010	2020	Change (%)
All Cities	974	1,165	20
Highly urbanized cities (33)	1,872	2,182	17
Metro Manila (16)*	19,358	22,030	14
Top 3:			
Manila	66,140	73,920	12
Mandaluyong	35,382	45,830	30
Pasay	28,122	31,543	12
Outside of Metro Manila (17)	807	973	21
Top 3:			
Mandaue	13,158	14,461	10
Lapu-Lapu	6,032	8,565	42
Angeles City	5,150	7,305	42
Independent component cities (5)	806	938	16
Component cities (108)	622	768	23

*excluding Pateros.

Source: Philippine Statistics Authority.

Implications of high population density of an urban area. If high population densities are not served by high-quality risk-reducing infrastructure, the implications for the risks that residents face can be severe. In addition, dense, low-income neighborhoods without sufficient basic services are associated with a range of public health risks.¹⁹ However, population density per se is not a cause of these risks—high-quality urban infrastructure can effectively reduce risks for a large number of people and with a high level of cost-effectiveness. With a total population of 109 million in 2020 and a land area of about 300,000 square kilometers, the population density for the Philippines was 363 persons per square kilometer, an increase by 55 persons since 2010. Metro Manila is the densest region in the country at 22,030 persons, 60 times higher than the national average and a rise of 2,672 persons since 2010. The highest density is noted among the HUCs in Metro Manila, which is

19 times bigger than the density of all cities in the country. The top three cities with the biggest density are Manila, Mandaluyong, and Pasay City. Outside Metro Manila, two of the densest cities are in Cebu, the second major metropolitan area in the Philippines (Table 2.5). This is followed by Angeles City, a key urban center in Central Luzon, which is adjacent to Metro Manila. Other HUCs are emerging as important growth poles within broader urban areas, including Davao City and Cagayan de Oro City. Among the types of cities, CCs recorded higher percentage increase (23%) in population density compared to HUCs (17%), which is consistent with the faster population growth in the former at 2.1% (Table 2.1).

Pockets of urbanization and of the urban poor.

In addition to these broad patterns, there are also many less visible yet significant features of urban areas. For example, urban barangays, which may

Table 2.6: Gross Regional Domestic Product, 2019

Region	2019 GRDP (at constant 2018 prices)	GRDP Share (%)	Per Capita GRDP (at constant 2018 prices)	Population in Cities (2020)	Percent Distribution of Population in Cities (%)	Proportion of Population in Cities (%)
Philippines	19,382,750,611	100.0	180,661	44,603,764	100.0	40.9
Metro Manila	6,224,134,457	32.1	456,532	13,419,235	30.1	99.5
CAR	321,722,276	1.7	179,544	487,391	1.1	27.1
Ilocos Region	630,362,667	3.3	120,625	1,031,842	2.3	19.5
Cagayan Valley	411,513,567	2.1	113,688	616,535	1.4	16.7
Central Luzon	2,183,779,631	11.3	180,396	3,730,302	8.4	30.0
CALABARZON	2,831,599,919	14.6	179,868	7,456,034	16.7	46.0
MIMAROPA	386,783,632	2.0	123,356	452,865	1.0	14.0
Bicol Region	564,941,774	2.9	93,050	1,078,976	2.4	17.7
Western Visayas	913,909,365	4.7	116,631	2,839,069	6.4	35.7
Central Visayas	1,254,113,393	6.5	159,686	3,501,339	7.8	43.3
Eastern Visayas	469,292,504	2.4	100,261	1,047,534	2.3	23.0
Zamboanga Peninsula	396,878,798	2.0	105,711	1,541,408	3.5	39.8
Northern Mindanao	867,432,424	4.5	175,018	1,975,268	4.4	39.3
Davao Region	900,885,668	4.6	172,912	2,735,075	6.1	52.2
SOCCSKSARGEN	469,982,193	2.4	108,812	1,487,902	3.3	30.4
Caraga	306,260,878	1.6	112,471	895,829	2.0	31.9
BARMM	249,157,465	1.3	53,825	307,160	0.7	7.0

BARMM = Bangsamoro, Autonomous Region in Muslim Mindanao; CALABARZON = Cavite, Laguna, Batangas, Rizal, Quezon; CAR = Cordillera Administrative Region; CARAGA; GRDP = gross regional domestic product; MIMAROPA = Mindoro, Marinduque, Romblon, Palawan; SOCCSKSARGEN = South Cotabato, Cotabato, Sultan Kudarat, Sarangani, General Santos City.

Source: Philippine Statistics Authority. [Data Series and Statistical Tables](#).

contain pockets of urban poor populations, exist in predominantly rural municipalities. There are also emerging cities, particularly CCs outside Metro Manila and the other metropolitan areas of Cebu and Davao, which have high population growth rates. Understanding these dynamics is necessary to develop more relevant and effective

programming and policy. For example, low-income residents are likely to have different needs and priorities depending on whether they live in an HUC, a CC, or a peri-urban setting, including the cost of shelter in relation to income, the availability of affordable land, and the potential to supplement nutrition with urban and peri-urban agriculture.

Programs to build the resilience of the urban poor therefore need to take account of these contextual differences.

The economy is concentrated in urbanized regions. Cities are the engines of growth accounting for a large proportion of the country's economic growth. Data suggest that regions with a large percentage of their population living in cities generally account for large shares in the country's gross domestic product (GDP). The primacy of Metro Manila is evident, as it accounts for 30% of the total population in cities and a 32.1% share in the country's GDP in 2019 (Table 2.6). Metro Manila and its adjacent regions in Luzon (CALABARZON and Central Luzon) account for more than half (55.2%) of city population and a lion's share of GDP (58%). This reflects a process of suburbanization of the population and spillover effects of economic activities from Metro Manila to adjacent regions. In the Visayas island group, Central Visayas (where Metro Cebu is located) accounts for the highest share in city population at 7.8% and 6.5% of GDP, followed by Western Visayas. In the Mindanao Island group, Davao Region (where Metro Davao sits) has the biggest share to total city population at 6.1% and 4.6% share to GDP. Northern Mindanao (where the

highly urbanized Cagayan de Oro City is located) accounts for the same share to GDP as Davao Region (4.5%) but has a relatively lower share to total city population (4.4%). Metro Manila and its two adjacent regions, Central Visayas, Western Visayas, Davao Region, and Northern Mindanao have a combined share of almost four fifths of GDP (78.3%); the other fifth is spread among the remaining 10 regions. In terms of per capita gross regional domestic product, Metro Manila accounts for more than twice the national average.

Services sector dominates economic activities in urbanized regions. The services sector, where informality is likely to be high, accounts for 60.4% of GDP in 2019 and is dominated by Metro Manila with a percentage share of 42.7%. The combined share of Metro Manila and its two adjacent regions (CALABARZON and Central Luzon) to the services sector is 61.6%. The industry sector's share is 30.4%, with CALABARZON contributing the biggest share at 24.3%, while the agriculture sector accounts for only 9.2%, with Central Luzon providing the largest share at 14.3%.²⁰ The declining share of agriculture output to GDP over the years can have implications on food security in urban areas in the midst of rapid urbanization and increasing future climate risk.

Urban Poverty in the Philippines

In 2018, the Philippine Statistics Authority (PSA) estimated the full-year poverty incidence, or the proportion of people whose per capita income is not sufficient to meet their basic food and non-food needs, at 16.7% (or 17.7 million Filipinos), down from 23.5% in 2015.²¹ However, in the first semester of 2021, overall poverty incidence reverted to approximately 2015 levels or 23.7% due to COVID-19 pandemic. This translates to 26.14 million Filipinos who live below the poverty threshold, or an additional

3.9 million poor people from the same period of 2018.²²

Poverty incidence is lower among cities with high level of urbanization. Poverty Incidence is the only available poverty indicator that covers all types of cities in the Philippines.²³ Poverty incidence in urban areas declined from 13.2% (6.3 million people) in 2015 to 9.3% (5.0 million people) in 2018 (endnote 21). In 2015, cities with

Table 2.7: Poverty Incidence among Philippine Cities and Level of Urban Population, 2015

Urban Population Level	No. of Cities by Poverty Incidence Category			Total No. of Cities	Average Poverty Incidence (%)	Median (%)	Min (%)	Max (%)	Standard Deviation
	Low ≤20%	Moderate 21%–40%	High ≥41%						
Very Low (1%–20%)	4	7	0	11	23.5	27.8	6.9	36.1	10.6
Low (21%–40%)	11	6	1	18	22.0	18.2	6.6	54.0	13.7
Moderate (41%–60%)	9	15	1	25	22.9	23.8	3.8	54.6	11.5
High (61%–80%)	23	10	1	34	17.5	15.5	2.5	49.8	10.4
Very High (81%–100%)	52	6	0	58	9.4	6.2	1.9	31.6	7.2
Grand Total	99	44	3	146	16.2	13.7	1.9	54.6	11.5

Source: Asian Development Bank. 2022. Advancing Inclusive and Resilient Urban Development Targeted at the Urban Poor: Urbanization Trends, Hazard Exposure and Sectoral Realities: A Macro View of Philippine Cities. Consultant's report. Manila (TA 9513-REG).

higher urban population levels had a lower poverty incidence on average (Table 2.7). Fifty-eight cities with very high urban population levels (more than 80% of the population living in urban areas) had an average poverty incidence of 9.4%. By contrast, the 11 cities with the lowest urban population levels (20% or less living in urban areas) had an average poverty incidence of 23.5% (endnote 23). The high poverty incidence in 2015 was accompanied by a relatively bigger number of informal settler families in both urban and rural areas at 664,000 from 475,000 in 2000, with Metro Manila accounting for 36% in 2015.²⁴

In 2018, all cities in Luzon except for one city in Bicol Region posted a poverty incidence of not more than 20% in 2018 (Table 2.8). It is noted that Bicol Region is located in the country's eastern seaboard that is prone to typhoons. Nationwide, poverty incidence was low (20% or lower) in 113 cities of which 65% are in Luzon, moderate (21%–40%) in 29 cities, and high (41% or higher) in 4 cities—all located in Mindanao. Majority of the highly urbanized cities (64%) are in Luzon.

A multidimensional phenomenon. At the most basic level, poverty reflects the inability of an individual or household to satisfy their basic needs.²⁵ Various local laws and specific government agencies in the Philippines define the “urban poor” in a range of ways. Type of residence and income are common criteria, while other characteristics include security of land and housing tenure, ability to meet basic needs, and type of employment and livelihood. This range of definitions indicates that different agencies may interpret the needs of the urban poor in different ways, which in turn may offer a range of potential entry points for resilience building. There are also many “near poor” households in urban areas. They are difficult to identify with official statistics but are at high risk of falling into poverty as a result of shocks and stresses.

Since 2018, PSA has started issuing a multidimensional poverty index, although not measured at the city level.²⁶ This index identifies a person as “multidimensionally deprived” if he or she is deprived in at least a third of the indicators or at least four of the 13 indicators.

**Table 2.8: Poverty Incidence of Population in Philippine Cities
by Region, 2018**

Region	No. of Cities by Poverty Incidence Category			Total No. of Cities	Poverty Incidence	Average Poverty Incidence among Cities	Percentage Point Difference in Poverty Incidence (Regional vs. Cities)
	Low (≤20%)	Moderate (21%–40%)	High (≥41%)				
Philippines	113	29	4	146	16.7	12.2	4.5
Luzon	73	1		74	9.3	5.7	3.6
Metro Manila	16			16	2.2	1.8	0.4
CAR	2			2	12.0	6.4	5.6
Ilocos Region	9			9	9.9	6.0	3.9
Cagayan Valley	4			4	16.3	10.8	5.6
Central Luzon	14			14	7.0	4.4	2.6
CALABARZON	20			20	7.1	4.8	2.3
MIMAROPA	2			2	15.1	5.7	9.4
Bicol	6	1		7	27.0	16.7	10.3
Visayas	22	17		39	20.2	17.0	3.2
Western Visayas	8	8		16	16.3	17.2	-0.9
Central Visayas	12	4		16	17.7	14.7	3.0
Eastern Visayas	2	5		7	30.7	21.9	8.8
Mindanao	18	11	4	33	31.6	21.1	10.5
Zamboanga Peninsula	3	1	1	5	32.7	24.1	8.6
Northern Mindanao	4	5		9	23.1	18.7	4.4
Davao	5	1		6	19.1	10.5	8.6
SOCCSKSARGEN	4		1	5	28.2	18.6	9.6
Caraga	2	4		6	30.5	22.8	7.7
BARMM			2	2	61.8	58.0	3.8
BARMM = Bangsamoro, Autonomous Region in Muslim Mindanao; CALABARZON = Cavite, Laguna, Batangas, Rizal, Quezon; CAR = Cordillera Administrative Region; MIMAROPA = Mindoro, Marinduque, Romblon, Palawan; SOCCSKSARGEN = South Cotabato, Cotabato, Sultan Kudarat, Sarangani, General Santos City. Source: ADB consultant's calculations based on data from Philippine Statistics Authority.							

In 2017, the proportion (headcount ratio) of multidimensionally deprived Filipinos was 17.3%, down from 23.9% in 2016. This index considers 13 indicators across four dimensions:

- Education dimension (school attendance, educational attainment)
- Health and nutrition dimension (hunger, food consumption, health insurance)
- Housing, water, and sanitation dimension (ownership of assets, toilet facility, source of water supply, tenure status of dwelling, housing materials, electricity)
- Employment dimension (underemployment, working children not in school).

The Community-Based Monitoring System (CBMS) uses the same set of indicators as PSA's different dimensions of poverty with the addition of participation and security, as stipulated in Republic Act No. 11315, also known as the CBMS Act.²⁷

In towns and cities, poverty has multiple dimensions that are related to various deprivations, disadvantage, and risk. Some common features of urban poverty include the following:²⁸

- Reliance on a cash economy: particularly the need to pay not only for food, but also the need to purchase services (e.g., water and sanitation), housing, and transportation that may not be required or may be freely available in a rural setting.
- Overcrowded living conditions and insecurity of tenure: low-quality housing increases health problems, while insecurity of tenure makes formal access to services difficult.
- Poor access to basic services: including the need to pay for these (e.g., water, sanitation,

health care, electricity [if provided], and often schools).

- Poor health and exposure to environmental hazards and risks.
- Higher risk of crime and violence due to absence of policing and rule of law.
- Informality: dependence on the informal economy for earning opportunities and on the informal sector for housing.

Specifically and highly relevant to this assessment, the study identified the vulnerabilities of families in the Philippines living in “danger zones” as a key additional aspect of poverty. These include families living along shorelines and roadsides, on steep slopes, under traffic bridges, and in flood-prone lowlands, where they face disasters both due to natural hazards (e.g., typhoons) and human-induced hazards (e.g., pollution and eviction).

At the same time, however, low-income urban residents often display characteristics that are necessary preconditions for resilience (Table 2.9). These include strong social networks and community coherence, which are necessary for sharing information and for acting collectively in response to shocks and stresses. The presence of many highly organized and motivated CBOs in low-income neighborhoods around the Philippines also creates a strong base for mobilizing to build resilience.

Urban poverty and informality. Urban poverty is often closely associated with “informality”: living in informal settlements and working in the informal economy. Informal settlements have been built outside the formal system of laws and regulations that are meant to ensure resilient structures, settlements, and systems (endnote 28), such as rules and regulations covering land use, buildings, and infrastructure; and service provision for recording land acquisition, acquiring legal land

Table 2.9: Definitions of Urban Poor in the Philippines

Common Criteria	Individuals or families residing in urban and urbanizing areas
	No security of tenure
	Residing in “danger zones”
	Lacking access to basic services
	Income or combined household income falls within the poverty threshold as defined by the National Economic and Development Authority and the Philippine Statistics Authority
Other Criteria	Underprivileged and homeless citizens who do not own housing facilities, this shall include those who live in makeshift dwelling units and do not enjoy security of tenure ^a
	Individuals or families who cannot afford in a sustained manner to provide their minimum basic needs of food, health, education, housing, and other essential amenities of life ^b
	The unemployed, underemployed, and the irregularly employed, or those who are incapable of meeting the minimum basic needs live in slums, squatter, and resettlement areas, sidewalks, dumpsites, road right-of-way, cemeteries, unoccupied government or private lands, or along danger zones like railroad tracks, <i>esteros</i> (estuaries), riverbanks, high tension wires, or other places in urban areas ^c
	Underserved families are those who are disadvantaged in terms of access to basic services because of inability to pay or other disparities by reason of economic or social status, ethnicity, geographical isolation, and other circumstances ^d
	Informal settler families are households living in a lot, whether private or public, without the consent of the property owner; or those without legal claim over the property they are occupying; or those living in danger areas such as <i>esteros</i> , railroad tracks, garbage dumps, riverbanks, shorelines, and waterways ^e
^a Government of the Philippines. 1992. Republic Act No. 7279 – Urban Development and Housing Act of 1992. ^b Government of the Philippines. 1998. Republic Act No. 8425 – Social Reform and Poverty Alleviation Act of 1998. ^c Presidential Commission on the Urban Poor. <i>The Urban Poor</i> . ^d Housing and Land Use Regulatory Board. <i>The Implementing Rules and Regulations of the Department of Human Settlements and Urban Development Act</i> . ^e Government of the Philippines. 2018. Republic Act No. 11201 – An Act Creating the Department of Human Settlements and Urban Development, Defining Its Mandate, Powers and Functions, and Appropriating Funds Therefor.	

tenure, and obtaining permission to develop buildings. Most (but not all) are on land that is illegally occupied and do not receive the infrastructure and services that should be provided in urban contexts such as reliable and safe water piped to homes, good provision within the household for sanitation, paved roads and paths, storm and surface drains, and energy access. Similarly, the informal economy is associated with irregularity, meaning that people have little or no rights or social protection, making them vulnerable to external shocks.²⁹ According to the

International Conference of Labour Statisticians, the informal economy has three characteristics: informal employment in unregistered or informal enterprises, informal employment in formal enterprises, and formal employment in informal enterprises.³⁰ While there are many low-income urban residents who do not live in informal settlements or work in the informal economy, and residents of informal settlements and workers in the informal economy are not invariably poor, there are many overlapping characteristics of

poverty and informality that simultaneously contribute to higher levels of risk.

Migration and urban poverty. In many cities, migrants form a large proportion of the urban poor with whom they share income and non-income disadvantages, including difficulties in finding adequate housing and in accessing services.³¹ Although data on poverty rates of rural–urban migrants in the Philippines are not available, poverty has driven many people to seek opportunities in urban areas.³² The majority of women migrants end up in domestic work, while the majority of male migrants to urban areas work in jobs that offer low salaries, such as crafts and trades, and manual or transportation work.³³ Combined with a lack of knowledge of local conditions, and potentially smaller social and economic support networks in cities, migrants can be particularly vulnerable to the consequences of disasters and climate change. Better migration tracking data, such as the Displacement Tracking Matrix, were used in response to displacements caused by Typhoon Mangkhut (known locally

as Ompong) in the northern Philippines on 15 September 2018 that helped to identify migrants and to build their resilience.

Estimating individuals and families living in poverty in urban areas. There are various estimates of the total number of individuals and families living in urban poverty in the Philippines, with figures ranging from 5% to 15% of the urban population (Table 2.10). The variances are due to the definitions, which also guide various estimates on the urban poor population. The differences in number may also be due to underestimation of government surveys that omit families without official and permanent residence.³⁴ Informality, a dominant characteristic of the urban poor, also serves as a factor for the lack of comprehensive and updated data on its number and magnitude. This constrains the characterization and segmentation of the urban poor for various development programs.

The biggest challenge of unmanaged urbanization is the significant number of

Table 2.10: Estimates of Urban Poverty in the Philippines

Agency/ Organization	Estimate (National)	Estimate (Metro Manila)	Data Assumptions
DHSUD	3.6 million families in both urban and rural areas	697,592 families	Data from local shelter plans of 969 LGUs as of July 2019
NEDA	1.5 million families or about 15% of the total urban population ^a	584,425 families	Based the total informal settler family population on reports from NHA, LGU, and DPWH in 2011
World Bank	2.2 million persons or 5.4% of the urban population in 2012 lived in informal settlements	1.3 million persons lived in informal settlements	Citing results of the Family Income and Expenditure Survey 2012, which defined “informal settlers” as those living in “own house, rent-free lot without consent” or “rent-free house and lot without consent”

DHSUD = Department of Human Settlements and Urban Development; DPWH = Department of Public Works and Highways; LGU = local government unit; NEDA = National Economic and Development Authority; NHA = National Housing Authority.

^a Comprising 767,502 informal settler families living in danger areas such as railroad tracks, *esteros* (estuaries), riverbanks, high tension wires, or other places in urban areas; 378,517 occupy privately owned land; 265,361 live in idle government properties.

Sources: Government of the Philippines, DHSUD. Data obtained from Local Shelter Plans of 969 LGUs as of July 2019; DHSUD. 2014. *Developing a National Informal Settlements Upgrading Strategy of the Philippines*; World Bank. 2017. *Promoting Inclusive Growth by Creating Opportunities for the Urban Poor. Philippines Urbanization Review Policy Notes*.

Table 2.11: Number of Families Living in Informal Settlements, 2000, 2006, 2012, and 2015, and Poverty Incidence among Families, 2015

Region	2000		2006		2012		2015		Poverty Incidence (%)	Poor Families ('000)
	Families ('000)	Share (%)	Families ('000)	Share (%)	Families ('000)	Share (%)	Families ('000)	Share (%)		
Philippines	475	100	658	100	707	100	664	100	16.5	3,747
Metro Manila	95	20	226	34	286	40	240	36	2.7	81
CAR	1	0	2	0	1	0	4	0	14.9	60
Ilocos	5	1	14	2	8	1	8	1	9.6	112
Cagayan Valley	10	2	3	0	9	1	4	0	11.7	95
Central Luzon	25	5	44	7	27	4	26	4	8.9	224
CALABARZON	28	6	38	6	77	11	47	7	6.7	216
MIMAROPA	18	4	14	2	8	1	21	3	17.4	121
Bicol	40	8	24	4	27	4	22	3	27.5	347
Western Visayas	51	11	75	11	43	6	65	10	16.6	282
Central Visayas	35	7	44	7	67	9	52	8	23.6	394
Eastern Visayas	33	7	26	4	40	6	18	3	30.7	300
Zamboanga Peninsula	17	4	31	5	27	4	24	4	26.0	214
Northern Mindanao	19	4	24	4	11	2	30	5	30.3	312
Davao Region	29	6	10	2	12	2	18	3	16.6	192
SOCCSKSARGEN	30	6	33	5	29	4	27	4	30.5	321
Caraga	20	4	16	2	21	3	17	3	30.8	178
BARMM	19	4	34	5	13	2	41	6	48.2	297

BARMM = Bangsamoro, Autonomous Region in Muslim Mindanao; CALABARZON = Cavite, Laguna, Batangas, Rizal, Quezon; CAR = Cordillera Administrative Region; MIMAROPA = Mindoro, Marinduque, Romblon, Palawan; SOCCSKSARGEN = South Cotabato, Cotabato, Sultan Kudarat, Sarangani, General Santos City.

Note: Families living in informal settlements refer to those living in houses or lots without the consent of owners.

Source: Philippine Statistics Authority. *Family Income and Expenditure Survey (FIES) Housing Tables*.

informal settler families (ISFs). As of 2015, all HUCs have reported households occupying houses and lots without the owner's consent, which can be assumed to be ISF households. A total of 217,042 were illegally occupying other people's property within the 33 HUCs

in the Philippines in 2015. Overall, almost a quarter of the HUCs across the country have more than 20% of their population comprising households occupying properties without the owner's consent.

The Philippines had 664,000 ISFs in both urban and rural areas in 2015, a slight decline from 2012, but an almost 40% increase from the 2000 level. Most informal settlers are located in Metro Manila, Western Visayas, Central Visayas, and CALABARZON. While Metro Manila may have the lowest number of families living below the income poverty threshold throughout the country, it has the greatest number of ISFs (Table 2.11).

The problem of informal settlements opens to other forms of deprivation of the urban

poor. Lack of affordable housing, for example, drives the urban poor to areas otherwise unsuitable for housing—those prone to climate and disaster risk and geologic hazards such as seismic activities and landslides. Informal settlements also often pose significant health risks. Overcrowding can contribute to stress, violence, increased problems of drugs, and other social problems. Living in these areas exposes informal settlers to a vicious cycle of disease, destruction of livelihood and assets, and loss of life, which exacerbate and deepen the experience of urban poverty.

Urban Poverty and the Coronavirus Pandemic

Need to rethink urban poverty reduction strategies and climate change adaptation actions from a resilience lens. The coronavirus disease (COVID-19) pandemic has required a fundamental reassessment of the nature of risk and resilience around the world, with specific implications for urban areas. The most significant outbreaks of the disease had taken place in towns and cities, and the social and economic implications of so-called lockdowns had been felt most severely in these settings.

A range of factors made transmission of the virus more likely and strategies to tackle it more difficult in urban poor neighborhoods.³⁵ These include:

- high residential densities that increase the potential for interpersonal transmission, and limited water infrastructure to support frequent handwashing;
- limited incomes and savings, meaning that people are unable to purchase stocks of food and therefore need to go outside the home for such more frequently; and

- higher likelihood of working in high-risk occupations where they come in contact with many more people or with contaminated materials.

In addition, a range of systemic factors make certain subgroups within the urban poor particularly susceptible to harm. These include people with disabilities (who may rely on others as caregivers and may be less able to self-isolate); gendered impacts (with the potential for increased caring burdens for women and girls, and the potential for increased rates of gender-based violence under quarantine conditions); and migrant workers (who may be living far from home without access to social safety nets).³⁶

The urban poor experienced a range of issues brought about by COVID-19 and the effects of government directives to curb local transmission. As these directives involved temporary measures that restricted the movement of people and transportation, the pandemic had immense social and economic consequences, such as supply

chain interruptions and economic slowdown. The impact on poverty has been notable, as evidenced by the rise in the poverty incidence of the population in the first semester of 2021 from 16.7% in 2018 to 23.7%, the same level as in 2015 (endnote 22).

COVID-19 highlighted the further potential for major infectious diseases to have lasting implications on the well-being and resilience of the urban poor. The pandemic likewise revealed the vulnerability of urban areas to health impacts and affected the urban population's ability to access essential services and sustain livelihoods. The urban poor living in informal settlements are disproportionately affected. Their "informality"

is not limited to their residences but also extends to their jobs, modes of transportation, and access to basic services.³⁷ Public health interventions must be balanced with social and economic interventions, especially in relation to the informal economy upon which many poor urban residents depend. Local residents, leaders, and community-based groups must be engaged and resourced to develop locally appropriate control strategies, in partnership with local governments and authorities (endnote 36). The pandemic has shown specific initiatives of local governments that shaped the circumstances surrounding the COVID-19 crisis, benefiting especially the urban poor.

Conclusion

Urbanization in the Philippines has had significant economic contributions.³⁷ However, the pattern of urbanization in the country has resulted in issues of informality in both housing and livelihoods, limited availability and access to basic urban services, and consequently greater exposure to climate and disaster risk, among others. The urban poor are disproportionately affected by climate risk, compromising their ability to cope with, adapt to, and thrive from climate shocks and stresses.

The information presented in this chapter depicts the nature and pattern of urbanization and poverty in the Philippines, implications on the provision of basic urban services,

and potential future trends that can be expected. This forms the basis for describing the nature of urban poverty, which in turn enables an understanding of some of the underlying drivers of vulnerability for the urban poor. The challenges of the COVID-19 pandemic were discussed to bring out the socioeconomic consequences affecting most especially the urban poor, which could undermine efforts toward building their resilience. The subsequent chapter describes the climate and disaster context and how this may change over time, before integrating the dimensions of poverty and hazards to indicate the main drivers of risk for the urban poor.

The Hazard and Climate Context in the Philippines

Chapter

3



The impacts of climate change are being felt around the planet and will pose an increasingly significant threat to the hard-earned development gains achieved in the Philippines.³⁸ Anticipated climate change may combine with and exacerbate existing natural hazards, which already devastate urban communities across the region, resulting in loss of life, damage of property, disruption to livelihoods, and setbacks to economic development. Unfortunately, it is often the poorest in these communities who are most vulnerable to climate change impacts—and they are expected to continue to suffer disproportionately.³⁹ Systematic climate change impact assessments will be useful for understanding and evaluating the linkages between current and future climate, the geographical location and scale of climate change impacts, and the vulnerability of urban populations. A systematic climate change impact assessment provides baseline information to communicate to stakeholders and to support informed decision-making.

Climate Trends at Global and Regional Scale

To gain a good understanding of the potential impact of climate change on the Philippines, it is important to consider the current climate and climate change at both global and regional scales. The country is located within the equatorial region and surrounded by sea. The surrounding seas tend to moderate the extremes of temperature change that can occur elsewhere. The expected mean temperature change for the equatorial region is lower than the temperature changes projected for the global north and continental temperate regions north and south of the equator. The region is also generally expected to experience increased precipitation as a result of climate change, although future climate projections are subject to considerable uncertainty; some areas

could become wetter, others drier. Areas of significantly reduced precipitation may occur in the temperate zones, a considerable distance away from the Philippines.

Climate change information from the Intergovernmental Panel on Climate Change (IPCC) shows potential changes in temperature and precipitation for the Southeast Asia region, which covers Indonesia, the Philippines, and neighboring countries.⁴⁰ Temperatures are expected to increase by 1°C–1.5°C by 2081–2100; in the Philippines, this will be in the 0.5°C–2.0°C range.⁴¹ Generally, the central portions of larger land areas are expected to experience greater temperature rises.

Climate Trends in the Philippines

The Department of Science and Technology (DOST) Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) has undertaken an assessment of observed climate trends and projected climate change in the Philippines, which provide national climate change projections for temperature, precipitation, tropical cyclones, and sea level rise.

Projected Changes in Temperature and Precipitation

In 2020, DOST-PAGASA evaluated historical and observed temperature and precipitation data. Observed historical data in the Philippines show that temperatures across the country have a large spatial variability. “Cool” extremes were observed at high elevations and inland,

while “hot” extremes were observed at lower elevations in near coastal areas, with small islands more exposed to “hot” extremes. For example, historical observations show there could be about 12 consecutive warm days over Palawan, western Luzon, and the Visayas, but this duration is expected to increase in the early future (until 2039) by 7 days and by 332 days in the late future (until 2099) in coastal areas in the Representative Concentration Pathway (RCP) 4.5 scenario. Under RCP8.5, warm periods can be 13 days longer in the early future 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.⁴² Projected changes, however, show a spatial uniformity regarding warming temperatures in terms of magnitude,



A resident of Barangay 67 in Tacloban City, Leyte lost her family's house during supertyphoon Yolanda (international name: Haiyan) in 2013.

frequency, and increased warm periods across the country. In relation to precipitation, historical observations also showed spatial variability across the country, but projections show a drying trend and also the likelihood of localized extreme precipitation such as “wet spots.” Prolonged rainfall events are projected to decrease, but with projected prolonged dry events, there could be more frequent wet events that disrupt prolonged dry (no rainfall) events. For example, the eastern parts of Visayas and Mindanao, southern Luzon, and especially Bicol Region have annual precipitation of about 4,000 millimeters (mm), but this will be lower for the rest of the Philippines under both RCP4.5 and RCP8.5 (endnote 42). Sections of northwestern Mindanao and western Luzon will experience an annual rainfall decrease of 700 mm in the early future and 600 mm in the mid- and late-future under RCP4.5. Decreased rainfall up to 600–900 mm is projected across the country under RCP8.5. Such variability across the country based on provincial level resolutions still requires more localized LGU-level downscaled data how such variations manifest.

Projected Changes in Tropical Cyclone Frequency and Intensity

Based on DOST-PAGASA's 2018 evaluation of observed and projected changes in frequency and intensity of tropical cyclone, the total number of tropical cyclones decreased

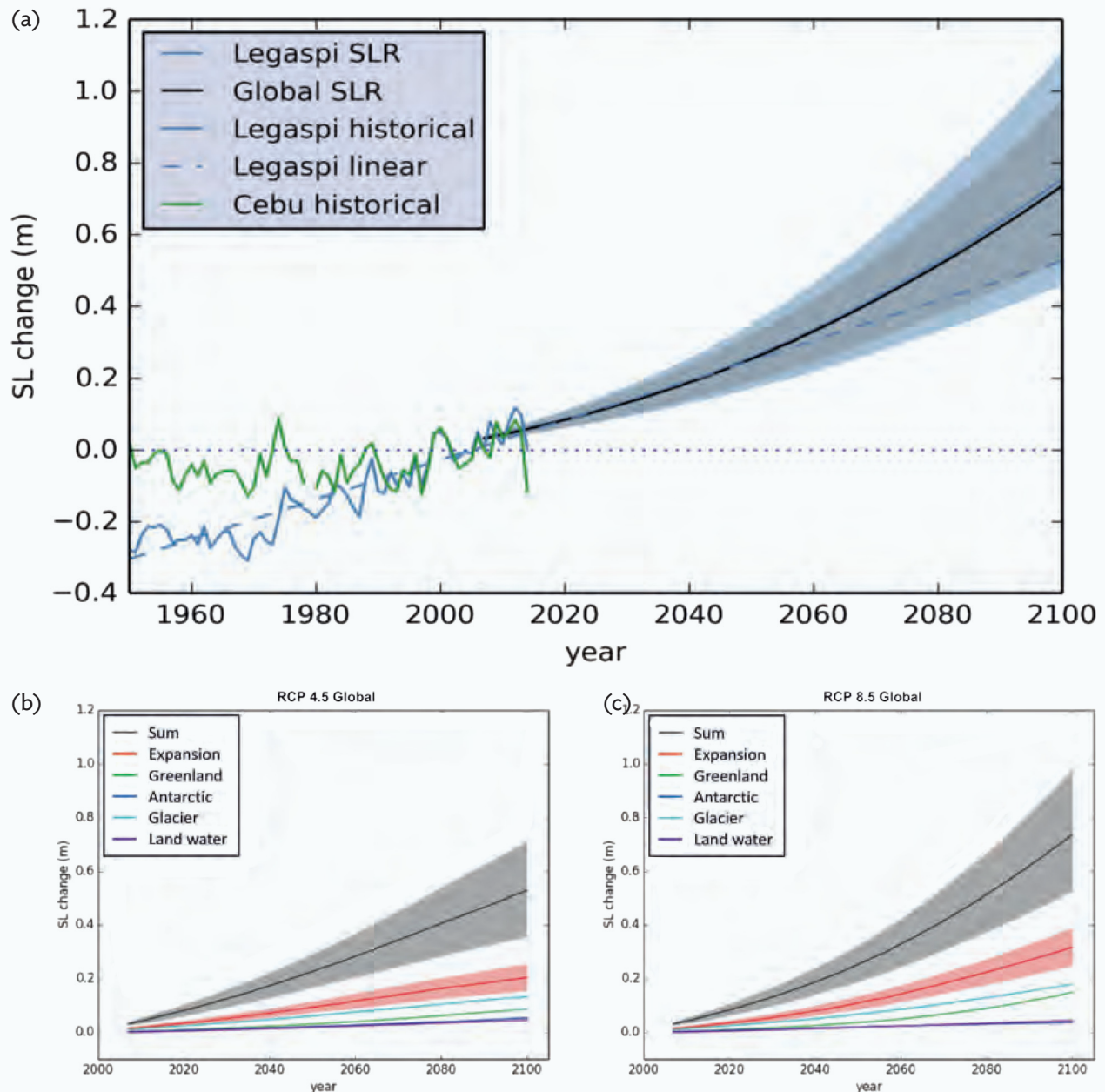
between 1951 and 2015, but very strong tropical cyclones observed over the Philippine Area of Responsibility (i.e., both land and offshore areas) increased—slight trends that are predicted to continue. High year-to-year variations in the frequency of occurrence and intensity of tropical cyclones are also expected to characterize future climate conditions in the Philippines.

The projected increase in the intensity of tropical cyclones is expected to be accompanied by larger (spatially and vertically) storm surges and larger wind-driven waves. Manila has been identified as potentially one of the worst impacted cities in a study of the potential compound impact of sea level rise and storm surges on low-lying coastal cities,⁴³ the spatial extent of which has subsequently been mapped.⁴⁴ The potential impact of storm surges is illustrated by the devastating consequences of Typhoon Haiyan, which hit the central Philippines in 2013, causing the loss of over 6,300 lives and estimated damage of \$2.98 billion.⁴⁵

Projected Sea Level Rise

Observed and projected changes from DOST-PAGASA showed the sea level has risen by nearly double the global average rate for some parts of the Philippines between 1993 and 2015. These trends are projected to continue with rises of the order 400–700 mm

Figure 3.1: Recent Historical and Projected Sea Levels around the Coastline of the Philippines



RCP = Representative Concentration Pathway, SLR = sea level rise.

Note: (a) shows the historical sea-level change from tide gauge observations and future projects including uncertainty. (b) and (c) show global mean sea-level change projections under RCP4.6 and RCP 8.6 with contributions from a range of ice melt scenarios.

Source: Government of the Philippines, Department of Science and Technology, Philippine Atmospheric, Geophysical, and Astronomical Services Administration (PAGASA). 2018. *Observed Climate Trends and Projected Climate Change in the Philippines*. Quezon City: PAGASA.

by the end of the century under RCP4.5 and 500–1,000 mm under RCP8.5. Projected increases in sea level will worsen storm surges and coastal flooding hazards relative to current levels (Figure 3.1).

One global study indicates that coastal elevations derived from the improved global

elevation model CoastalDEM⁴⁶ are significantly lower than previous ones from the widely used Shuttle Radar Topography Mission global digital elevation model. Consequently, translating projected sea level change into potential flood extents and estimating the possible land area and population impacted may result in much larger estimates than previous estimates.

Climate Change Impacts on Urban Centers in the Philippines

To better understand the scale and distribution of the potential impacts of climate change on the urban poor in the Philippines, it is useful to overlay information about climate change such as temperature change on information related to the distribution of the urban population at regional and city scales. Such information will show that population density is not evenly distributed across the regions but concentrated in urban areas, such as Manila and other HUCs.

A mean temperature increase of 1.2°C is projected to impact the very large population of Manila in the medium term (2046–2064). Map overlays could be easily produced for the projected distribution and duration of extreme heat to estimate the potential location and number of people who could experience health or work productivity impacts across the country. Heat stress can have potentially deadly consequences in countries of high humidity, including the Philippines. However, data on this are not readily available for all urban areas.

As noted earlier, the potential compound impact of sea level rise and storm surges on low-lying coastal cities such as Manila would be significant; a more recent mapping of the spatial extent of the impact of storm surges on

the Manila coastline shows potential flooding inundation to elevations of 4–6 meters over very large areas and subsequent probabilities of damage to buildings and infrastructure (endnote 44). The share of coastal cities is estimated at 60%, which includes all 14 cities in Eastern Visayas, Zamboanga Peninsula, and MIMAROPA, and most cities in Ilocos Region (7 of 9), Bicol Region (5 of 7), Central Visayas (15 of 16), Northern Mindanao (7 of 9), and Caraga (5 of 6), which also have coastal boundaries. PHILVOLCS claims 100 or 68% of all cities are exposed to tsunamis at varying degrees.

In addition, about 75% of the land area belonging to cities in the Philippines are prone to rain-induced landslides, and 23% are flood-prone. Based on September 2021 data, 107 of the 132 cities with data have high to very high exposure to rain-induced landslides.⁴⁷ Ninety cities have very high exposure: 76 CCs, 11 HUCs, and all 3 ICCs. While almost all cities are prone to floods, about a quarter of the combined land area of cities is susceptible to inundation (8,150 square kilometers), and 44% of this land area is highly to very highly susceptible.

Climate and Disaster Risk and Urban Poverty

Climate and disaster risk assessments in the Philippines provide insights on the exposure of areas to hazards, taking poverty incidence into consideration. A recent analysis shows that 21 of the top 25 cities with high poverty incidence (29%–55%) have very high exposure to either floods or rain-induced landslides, putting the urban poor populations in a more vulnerable situation (Table 3.1). These cities include 19 CCs and the two coastal cities of Tacloban and Butuan, both HUCs that are located in regions hit by super typhoon Haiyan in 2013 and super typhoon Rai in 2021. Exposure to hazards can exacerbate poverty and multiple deprivations by disrupting or impeding livelihoods; damaging required infrastructure and basic services; putting people's health at risk; and not providing adequate and timely social protection, among others.

Poverty and informality contribute both indirectly and directly to vulnerability. While not all people working in the informal economy or living in informal settlements are poor, there is a high degree of overlap. The main indirect contribution is in the lower levels of resilience and adaptive capacity, as summarized in Table 3.2. Though many low-income urban residents have strong awareness of local hazards and have devised approaches to cope with them, they still lack the necessary resources and information to effectively manage shocks and stresses, the impacts of which are compounded by preexisting deficiencies in health, shelter, neighborhood infrastructure, and livelihoods. Table 3.2 identifies some of the main categories in which these risks can be observed.⁴⁸

Table 3.1: Top 25 Cities with Highest Poverty Incidence and Multiple Exposure to Select Natural Hazards

City	Poverty Incidence, 2015 (%)	Flood	Rain-Induced Landslide
Marawi	54.64	Moderate	Very high
Guihulngan	54.04	Moderate	Very high
Bayawan	49.76	Low	Moderate
Bais	39.73	Moderate	Moderate
Bislig	38.1	Very high	Very high
Lamitan	37.55	Moderate	Very high
Malaybalay	36.46	Moderate	Very high

continued on next page

Table 3.1, continued.

City	Poverty Incidence, 2015 (%)	Flood	Rain-Induced Landslide
Dapitan	36.14	Moderate	Very high
Iriga	35.8	Very high	Very high
Tacloban	35.47	High	Very high
Canlaon	34.95	Low	Low
Tabaco	33	Very high	Very high
Butuan	32.4	Very high	Low
Cabadbaran	32.25	Very high	Low
Koronadal	31.6	Very high	Very high
Tangub	31.42	High	Very high
Toledo	31.37	High	Very high
Baybay	30.77	Moderate	Very high
Valencia	30.04	Very high	Very high
Gingoog	29.64	Moderate	Very high
Tandag	29.62	Moderate	Low
Bayugan	29.36	High	Moderate
Maasin	29.36	High	Very high
El Salvador	28.52	High	Very high

Source: ADB. 2022. *Advancing Inclusive and Resilient Urban Development Targeted at the Urban Poor: Urbanization Trends, Hazard Exposure and Sectoral Realities: A Macro View of Philippine Cities*. Consultant's report. Manila (TA 9513-REG).

Table 3.2: Climate Change Impacts Associated with Urban Poverty

Projected Climate Impacts	Implications for the Urban Poor
Higher maximum temperatures, more hot days, and heat waves	<ul style="list-style-type: none"> • Density of low-income and informal settlements contributes to higher indoor temperatures • Outdoor workers face health risks from higher temperatures • Some groups are particularly vulnerable: very young, older persons, those with preexisting conditions, etc.
More intense precipitation events (including from irregular high-intensity rainfall) and riverine floods	<ul style="list-style-type: none"> • Many urban poor neighborhoods on sites at risk of flooding • Lack of infrastructure compounds risk • Poor-quality housing less able to withstand flooding • Homes and assets not covered by insurance • Waterborne diseases, leptospirosis, dengue, influenza
Wind storms with higher wind speeds	<ul style="list-style-type: none"> • Low-income neighborhoods often in highly exposed coastal locations • Non-engineered housing more susceptible to damage despite many effective local practices
Reduced water availability and quality, including as a result of irregular rainfall and drought	<ul style="list-style-type: none"> • Increased costs for drinking water, particularly for low-income households relying on private water vendors • Contamination of water supplies, including from inadequately treated wastewater
Sea level rise and storm surges	<ul style="list-style-type: none"> • Low-income neighborhoods often in highly exposed coastal locations

Source: D. Satterthwaite et al. 2018. *Responding to Climate Change in Cities and in Their Informal Settlements and Economies*. Paper prepared for the International Scientific Conference on Cities and Climate Change. Edmonton, Canada. March.

Conclusion

The Philippines is exposed to a wide range of natural hazards that have significant impacts on the urban poor. There is a strong likelihood of higher temperatures, rising sea levels, and more intense extreme weather events that can result in flooding and landslides—all of which are likely to have particularly serious consequences

on low-income residents in the country's towns and cities. While shocks (i.e., disasters) can slide a family into poverty, it is the daily “stresses” such as lack of livelihood, poor health, and inadequate or lack of social protection, which weaken the overall resilience of the urban poor.

Building Resilience of the Urban Poor: Central Propositions





This chapter presents a set of underlying principles and propositions that frame opportunities to address these risks and build resilience. It provides a vision of building the resilience of the urban poor and identifies the key intervention areas and enabling conditions that are necessary to achieve this.

Urban Poverty and Climate and Disaster Risk

Defining climate and disaster risk. The urban poor face a wide range of climate and disaster risk and have a broad set of resilience mechanisms, drawn from their environments and their own resources. This report adopts the most recent definition of risk used by the IPCC:⁴⁹

The potential for adverse consequences where something of value is at stake and where the occurrence and degree of an outcome is uncertain. In the context of the assessment of climate impacts, the term risk is often used to refer to the potential for adverse consequences of a climate-related hazard, or of adaptation or mitigation responses to such a hazard, on lives, livelihoods, health and well-being, ecosystems and species, economic, social and cultural assets, services (including ecosystem services), and infrastructure. Risk results from the interaction of *vulnerability (of the affected system)*, its *exposure* over time (to the hazard), as well as the (climate-related) *hazard* and the likelihood of its occurrence.

As the Philippines also faces a large number of geophysical hazards, including earthquakes and volcanoes, the definition of risk used in this report incorporates both climate and geophysical hazards.

Risk faced by the urban poor as a function of vulnerability, exposure, and hazard.

For the urban poor, the three elements of risk—vulnerability, exposure, and hazard—interact in particular ways. The *vulnerability* of the urban poor is largely shaped by the multiple deprivations of poverty, including limited financial resources to protect against shocks and stresses; limited ability to protect their livelihoods, which is most

essential for survival in cities; the absence of access to safe housing; the inadequate provision of basic services (including risk-reducing infrastructure); and governance and accountability failures that result in exclusion and increased vulnerability. Vulnerability is frequently exacerbated by the precarious nature of the informal livelihoods (or poorly paid formal livelihoods) on which the urban poor rely. At the same time, this group is highly *exposed* to a range of threats, largely as a result of the unaffordability or inaccessibility of safe land for housing, and a consequent need to inhabit marginal areas of towns and cities. This is often particularly true for recent migrants. The *hazards* that the urban poor encounter are shaped by these locational issues, including coastal and riverine flooding, the effects of storms and typhoons, droughts, and heat waves. Many of these hazards are expected to worsen as a result of climate change. The effects of these hazards are exacerbated by patterns of exposure and vulnerability. For example, higher temperatures will disproportionately affect people exposed to these (through poor-quality and uninsulated housing) or vulnerable to their effects (through vector-borne diseases that spread rapidly in poor-quality living conditions). While not the focus of this report, it is important to note that the urban poor are also particularly vulnerable to the indirect impacts of climate change and disasters through the disruption of critical urban systems. Even risks that are not related to the climate can impact the urban poor and erode their adaptive capacity, thereby further increasing their vulnerability to climate risk. With limited financial resources to seek alternatives or to store necessities, disruption to city services such as water, energy, transport, information technology, and health care will affect the poor more severely. It is therefore important to position resilience of the urban poor within the broader context of urban resilience at the scale of the city.

Vision: Resilience of the Urban Poor

Defining resilience. Resilience is the ability to withstand the risk and consequences that arise from exposure to shocks and stresses, including the ability to absorb that risk or consequence with limited negative impacts and to “build back better” from exposure to risk—for example, by improving livelihoods, environments, or well-being. Although resilience commonly refers simply to the ability of a system or structure to cope with a disturbance of some type and return to its basic ways of functioning, this report builds on the more ambitious framing of resilience proposed by the IPCC Special Report on Extreme Events.⁵⁰

The ability of a system and its component parts to anticipate, absorb, accommodate, or recover from the effects of a hazardous event in a timely and efficient manner, including through ensuring the preservation, restoration, or improvement of its essential basic structures and functions.⁵¹

For the urban poor, the urgent provision of basic services, infrastructure, diversified livelihoods, and employment is particularly important given their existing deficiencies in shelter, infrastructure, livelihoods, and well-being, as well as the need to enhance their adaptive capacity.

Vision of resilience of the urban poor. This vision encompasses all low-income residents in urban areas, including (but not limited to) differences in gender, age, and migration status—a central principle of the “leave no one behind” agenda of the Sustainable Development Goals. It envisages that despite their low incomes, the urban poor

residents will be better protected from climate- and disaster-related shocks and stresses, that they will be more prepared to face the shocks and stresses that they do experience, and that disasters and climate change will not negatively affect their well-being nor reduce their opportunities to improve their livelihoods and living conditions. This incorporates many of the elements of climate justice: a concept that recognizes not only the need for the outcomes of climate change responses to meet the priorities of all people but also the importance of people’s involvement in decisions that shape these responses. In practical terms, this includes a vision for healthy individuals, resilient households, resilient and adaptive infrastructure, and dignified and secure livelihoods that contribute to vibrant, diverse, and resilient cities—and avoids the negative outcomes that could result from a failure to act (Box 4.1).

Resilience as a pathway toward transformation.

For this report, resilience is a pathway toward a transformation in the opportunities available to low-income urban residents that enables them to build their capabilities to withstand shocks, stresses, and uncertainty—and to progress out of poverty. This is closely associated with the idea of “transformative adaptation” (Figure 4.1), which highlights the limits of responding only to near-term risks, improving existing infrastructure, and adding to business-as-usual planning. In contrast, a more transformative approach, which is necessary to address the systemic and structural dimensions of vulnerability and exposure, will engage with underlying inequalities, take a people-centric approach, and require behavior and lifestyle changes.

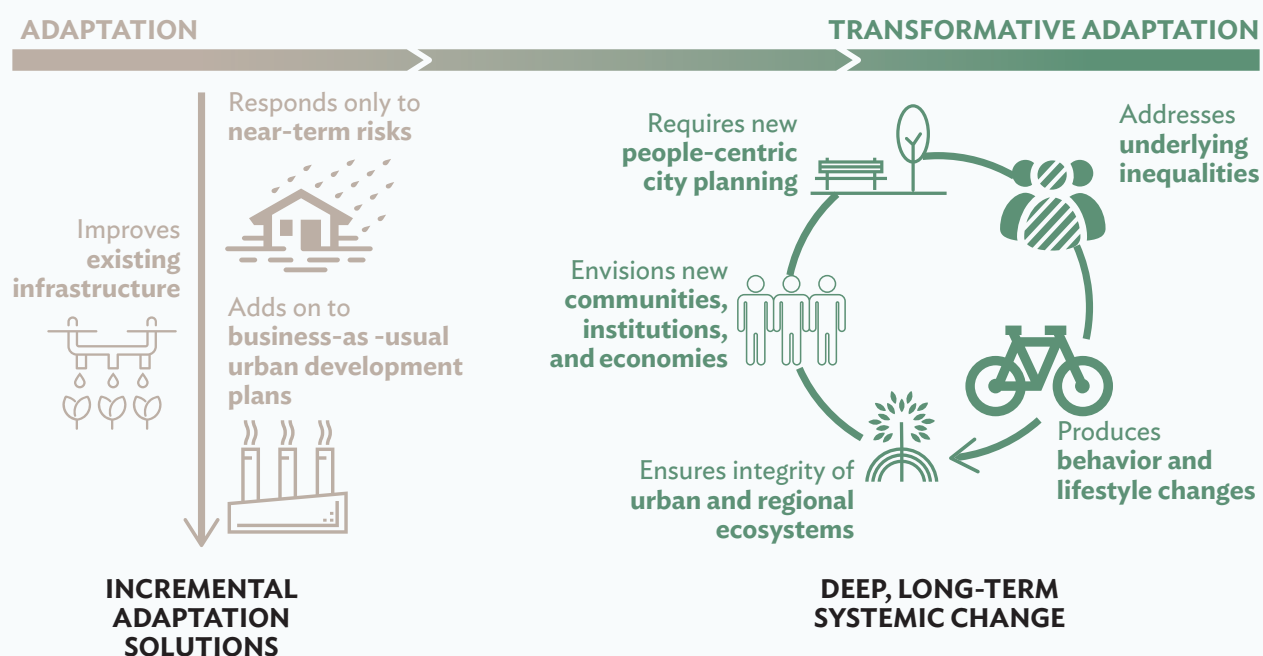
Box 4.1: The Future We Do Not Want

What could happen without a focused effort on building the resilience of the urban poor in the Philippines? In the best circumstances, pro-poor economic growth could reduce the number of urban poor, and increase their ability to respond to shocks and stresses. Without a focus on resilience, many of them will continue to live in locations that are exposed to natural hazards, including higher temperatures, more intense rainfall, and sea level rise—which are expected to worsen as a result of climate change. Many of the gains from economic growth could be eroded by the need to respond to shocks, and the health and well-being of urban residents will continue to be limited by stresses and uncertainty.

In the worst circumstances, the rapid growth of towns and cities will be associated with a higher number of residents living in poor-quality housing in locations that are exposed to a range of natural hazards. These residents will be economically and politically marginalized, and unable to cope with the shocks and stresses that they face. Even if local government units and national agencies are able to prevent widespread loss of life due to disasters triggered by natural hazards, a repeated cycle of disasters will continue to damage well-being, and will prevent people and cities from reaching their full potential.

Source: Asian Development Bank.

Figure 4.1: Transformative Adaptation Associated with Systemic Change



Source: E. Chu et al. 2019. *Unlocking the Potential for Transformative Climate Adaptation in Cities*. Background paper prepared for the Global Commission on Adaptation. Washington, DC and Rotterdam.

Principles for Building Resilience

Urban agents, urban systems, and urban institutions for building resilience. The most widely recognized definitions of urban resilience, particularly those that focus on low-income and marginalized groups, consider multiple dimensions. One particularly appropriate framework—not because it was derived from extensive analysis and planning in Southeast Asian cities—was proposed by the Asian Cities Climate Change Resilience Network, which recognizes the key role of urban agents, urban systems, and urban institutions in contributing to resilience.⁵²

This report broadens the focus on resilient *agents* to consider the factors that can build the resilience of individuals, households, and communities, particularly by developing their capacities to manage shocks and stresses. As will be explained, strengthened systems for adaptive social protection play a critical role here. Also at this scale, the health impacts of climate change could become more severe, so improvements in public health provision will be necessary to build resilience. The quality of housing is a further important element. The *systems* that support this operate at both neighborhood and city scales—networked infrastructure that is designed to cope with current and future threats is an essential component of reducing risk. However, conventional infrastructure solutions need to sit alongside nature-based approaches. Community-driven development, with a focus on priorities and interventions led by community residents, is particularly critical in this regard. These changes can only be implemented and sustained through *institutions* with responsibilities to address risk in urban areas. Capable, accountable, and responsive urban governance is critical to ensuring that decisions are made and implemented at the most appropriate scale, with accountability both to funders and to intended beneficiaries.

Principles for building resilience of the urban poor. As described earlier, this report frames building the resilience of the urban poor as a multifaceted process, operating at a range of scales and involving a range of policy areas. This is based on achieving a vision of resilience that incorporates resilient households, health and well-being for all, resilient and adaptive infrastructure, dignified and secure livelihoods, and vibrant and diverse cities—a set of priorities informed by the literature while drawing on consultations with communities and other stakeholders.

The framework indicates a range of policy areas: social protection, health, resilient housing and shelter, planning and urban development, community-driven development, and livelihoods, along with various enabling factors (capable, accountable, and responsive governance; urban and climate data; and climate and urban finance) (Figure 1.2). The framework applies the following key principles, which were derived through expert review of the literature and widespread consultation.

Building resilience of the urban poor requires interventions at different scales. Towns and cities rely on complex infrastructural, social, and political networks if they are to thrive; activities and interventions at any scale rely on complementary activities and interventions at other scales. Different scales of intervention will therefore strengthen various dimensions of resilience. This report focuses on the household, community, city, and national scales as key arenas for action to build resilience. For example, small-scale sanitation systems within urban neighborhoods require connections to citywide sewerage networks if their full benefits are to be realized. As described below, capable, accountable, and responsive governance is a central element of this, with decisions being made at the lowest appropriate scale according to the principle of

subsidiarity. This enables detailed local contextual knowledge to inform decisions and strengthens the commitment of stakeholders in implementing the decisions that have been made.

Multiple key policy areas need to identify interdependencies and work together.

In keeping with the systems approach, interdependencies need to be recognized between different policy areas. For example, the quality of housing is critical to addressing public health needs; and cash transfer programs that only target households with poor-quality housing materials as eligibility criteria can disincentivize people from improving their dwellings.

Complementarities need to be sought between hard infrastructure and nature-based approaches to adaptation.

Nature-based solutions can complement “hard infrastructure” to support the resilience of the urban poor by reducing air temperature, managing storm water and flooding, improving urban water supplies, protecting urban coastlines, and reducing wind erosion.⁵³ Many of these are particularly important in peri-urban and coastal areas where low-income settlements may be concentrated. Importantly, these approaches can also generate co-benefits around livelihoods, reduced pollution, and recreational opportunities for low-income groups.

Capable, accountable, and responsive governance is critical for coordinating urban resilience, particularly to meet the needs of the poor.

Coordination between scales, which is a critical role for government institutions, is vital for building resilience, as is the capacity to learn, respond to new and emerging threats, and enable equitable provision of services that meet the needs of all urban residents. Decentralized and responsive governance, with qualified, capable, and resourced local institutions, is critical. This includes maximizing existing processes for the recognition, participation, and representation of the urban poor in local development processes and involvement

of organized community groups in the design of solutions, including through community-driven development. This will ensure that poor urban communities can demand transparency and that interventions address their needs.

Actions need to be informed by high-quality climate, disaster, and urban information.

Building resilience requires making decisions based on the best available evidence. Even where this evidence has been generated, it may not be readily available to decision-makers at the right scale. More significantly, different types of evidence (e.g., about hazardous sites and locations of low-income neighborhoods) may not be readily combined or be accessible. Developments in technology mean that evidence can be generated remotely, but community-gathered data (e.g., on housing quality and local infrastructure provision) remain an important resource for understanding the needs and priorities of low-income groups in cities. The ability to interpret evidence is also significant: policy makers need to understand the uncertainty in projections of future climates.

Improved resilience of the urban poor will require new forms of financing and better alignment of existing finance.

While this may include dedicated “climate finance,” the interrelationships between housing, community infrastructure, social protection, and urban development will probably require blending of funds from different sources to contribute to broader resilience. A stronger demand for the existing supply of climate finance to be channeled to initiatives that support the resilience of the urban poor can still be improved.

Building resilience of the urban poor creates additional opportunities.

While the approach taken by this report highlights the necessary areas in which interventions are necessary to build resilience, efforts with a focus on building resilience can generate co-benefits and opportunities. One key opportunity is to ensure

that climate policies, programs, financing, and activities—which are increasing in number and complexity—recognize the particular needs of the urban poor. Another opportunity is the ability to move beyond disaster response and the highly successful zero-casualty approach, to think about the broader potential that higher levels of

resilience can create for the urban poor to improve their health and well-being. Actions that focus on making housing, neighborhoods, and livelihoods more resilient to disasters and climate change can also yield short-term benefits to health, well-being, and productivity.

Conclusion

This report highlights the opportunities that exist for building the resilience of the urban poor in the Philippines—and the wider possibilities that are created through a focus on resilience. Various policy areas can contribute to the resilience of the urban poor and can benefit by taking this priority into account. For example, social protection schemes can contribute significantly to resilience by building the capacity of vulnerable households to cope with shocks and stresses. However, if they do not take risk and resilience into account, they will fail to meet the needs of some of the most vulnerable

individuals and households. Recognizing this, new forms of partnerships will also be required. These will need to be within government (including across different national government agencies and between local governments and national government agencies); between government and nongovernment or civil society organizations that have deep experience and abilities for working with the urban poor; and between government and the private sector, which provides many of the goods and services that low-income urban residents require.

Supporting Resilience of the Urban Poor: Provision and Opportunities





The living conditions of the urban poor in many settlements elevates the risk from most climate change impacts, such as higher (and increasing) maximum temperatures and heat waves, more intense precipitation events and riverine floods, windstorms with higher wind speeds, changes in water availability, sea level rise, and storm surges. Climate change is, therefore, very often a “threat multiplier”—exacerbating existing challenges facing the urban poor, often because they are more exposed to these threats. It also acts to keep people in poverty, or push people who are “near poor” into actual poverty. When poor people experience disasters, the consequences of these for their lives and well-being can be significant; even if the absolute losses are relatively small, these can have substantial consequences.⁵⁴

A range of programs and activities already exist in the Philippines that provide some of the services and activities to support the resilience of the urban poor. These cover social protection, livelihoods, health, housing and shelter, community-driven development, and planning and urban development. Other areas also contribute but are outside the scope of this study. Indeed, the interconnected nature of urban systems and urban economies means that almost all policy areas have some bearing on the well-being, livelihoods, and resilience of low-income groups in cities. This chapter describes the existing provision in key areas (what is in place?) that build the resilience of the urban poor, including gaps and challenges, and identifies opportunities (what can be done?) for further enhancement.



Social Protection





Social protection has the potential to both help reduce exposure to shocks and stresses and mitigate their impacts at a household level to reduce current and future vulnerability and contribute to climate change adaptation (Figure 5.1). The poorest households are often the most vulnerable (e.g., living in the most flood-prone districts of metropolitan areas) and are typically the beneficiaries of social protection programs. Households receiving regular, predictable, and timely social transfers can absorb their exposure to shocks, for example, through increased household savings and better housing in less exposed locations. Public works programs can build community assets that protect against climate shocks if climate and disaster risk considerations are factored in—for example, afforestation can prevent floods and landslides. Social protection can also be linked to other activities that enable sustainable livelihoods, increased economic assets, strengthened early warning systems,

as well as access to microfinance and disaster risk finance. This section describes the three components of the existing social protection system (enabling environment, programs, and delivery systems) and describes the gaps and challenges through five dimensions of key adaptation features (coverage, adequacy, comprehensiveness, capacity and/or coordination, and preparedness) for opportunities to build resilience through social protection in the Philippines.

What Is in Place?

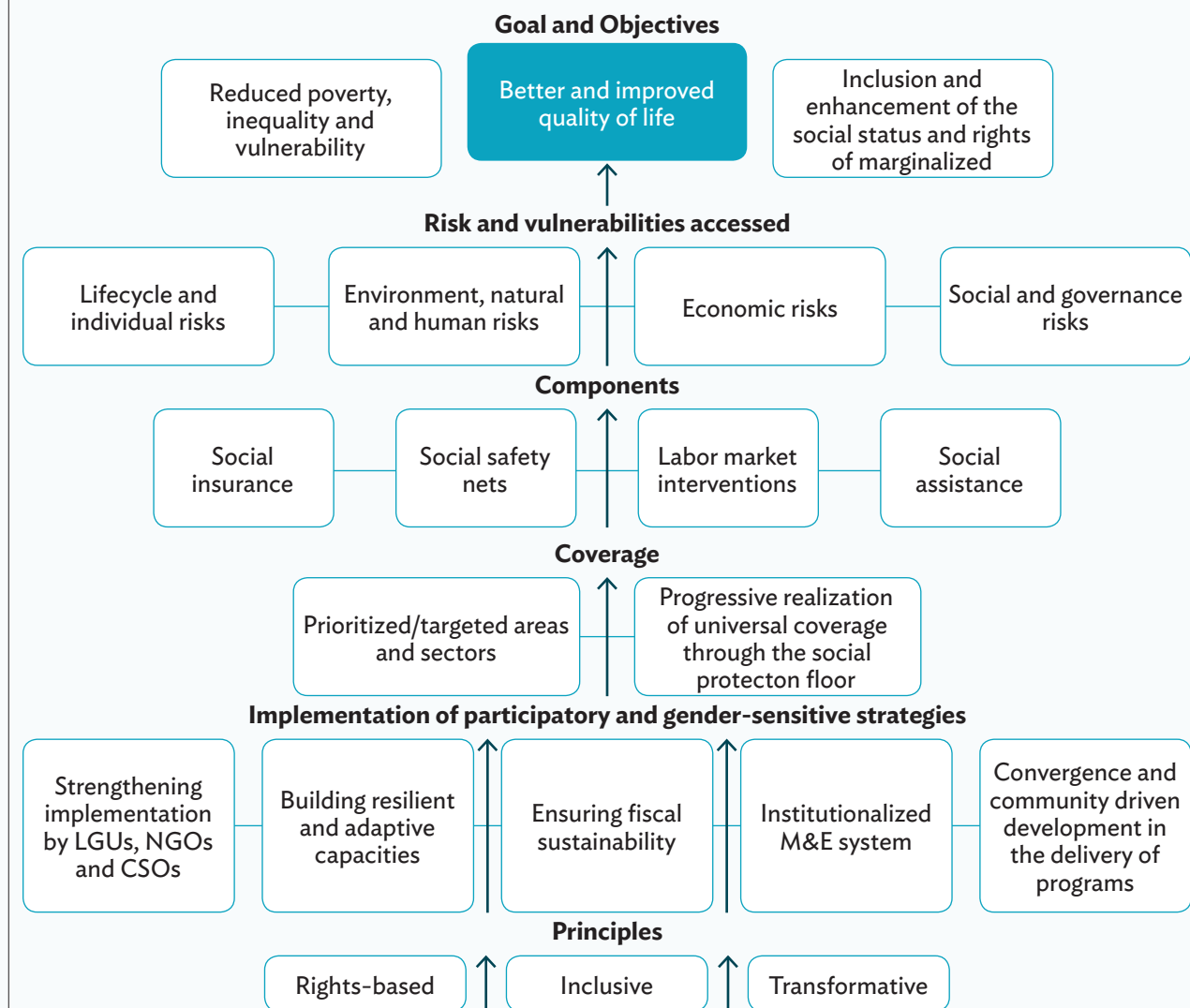
The social protection system in the Philippines has four pillars. The national definition of social protection is: “policies and programs that seek to reduce poverty and vulnerability to risks and enhance the social status and rights of the marginalized by promoting and protecting livelihood and employment, protecting against hazards and

Figure 5.1: The Contribution of Social Protection to Climate Change Adaptation

Social protection functions		Contributions to adaptation
Protection		Enhances <i>absorptive capacity</i> , enabling short-term coping strategies to buffer shocks
Prevention		Enhances <i>absorptive capacity</i> , facilitating longer-term but incremental adjustments for dealing with shocks
Promotion		
Transformation		Enhances <i>absorptive capacity</i> , to effect structural change that reduces entrenched social inequalities

Source: J.D. Tenzing. 2020. Integrating Social Protection and Climate Change Adaptation: A Review. *Wiley Interdisciplinary Reviews: Climate Change*. John Wiley & Sons. Vol. 11(2), March.

Figure 5.2: Four Main Components of the Social Protection System of the Philippines



CSO = civil society organization, LGU = local government unit, M&E = monitoring and evaluation, NGO = nongovernment organization.

Source: Government of the Philippines, National Economic and Development Authority Social Development Committee, Sub-Committee on Social Protection. 2020. *Social Protection Plan 2020–2022*. Manila.

sudden loss of income, and improving people's capacity to manage risks."⁵⁵ This definition is operationalized through four core program responses (see also Figure 5.2, which presents the proposed revised Social Protection Operational Framework):⁵⁶

- *Social welfare* includes social assistance to the poorest and marginalized groups (e.g., cash or in-kind transfers with preventive and development objectives) and social services such as community support and referral services.

- *Social safety nets* include noncontributory programs that are viewed as urgent responses that provide relief in the event of economic shocks or disasters on specific vulnerable groups, including emergency assistance, price subsidies, food programs, employment programs, retraining programs, and emergency loans.
- *Social insurance* includes schemes that are financed through contributions from members, such as pensions and unemployment benefits or insurance.
- *Labor market interventions* include skills development training, labor and trade policies, and agricultural support.

The policy foundations for the country’s social protection system are robust and provide a good basis for advancing adaptive approaches.

Social protection is governed by a collection of sector- and program-specific laws, administrative orders, and Cabinet Committee decisions.⁵⁷ The Social Protection Operational Framework and Strategy was formulated in 2009 and provides guidance to national government agencies, local government units (LGUs), and other stakeholders in creating a coherent approach to social protection programs and services. In 2019, the Social Protection Operational Framework was amended to include reference to climate change and disaster risk, as well as building resilient and adaptive capacities. The Social Protection Plan 2020–2022 outlines the goal for all Filipinos to be able to access a menu of social protection programs responding to various risks that they will confront in their lifetime.

The strategic framework for social protection is also consistent with national policies. The Philippine Development Plan (PDP) 2017–2022 outlines the role of social protection in building “the socioeconomic

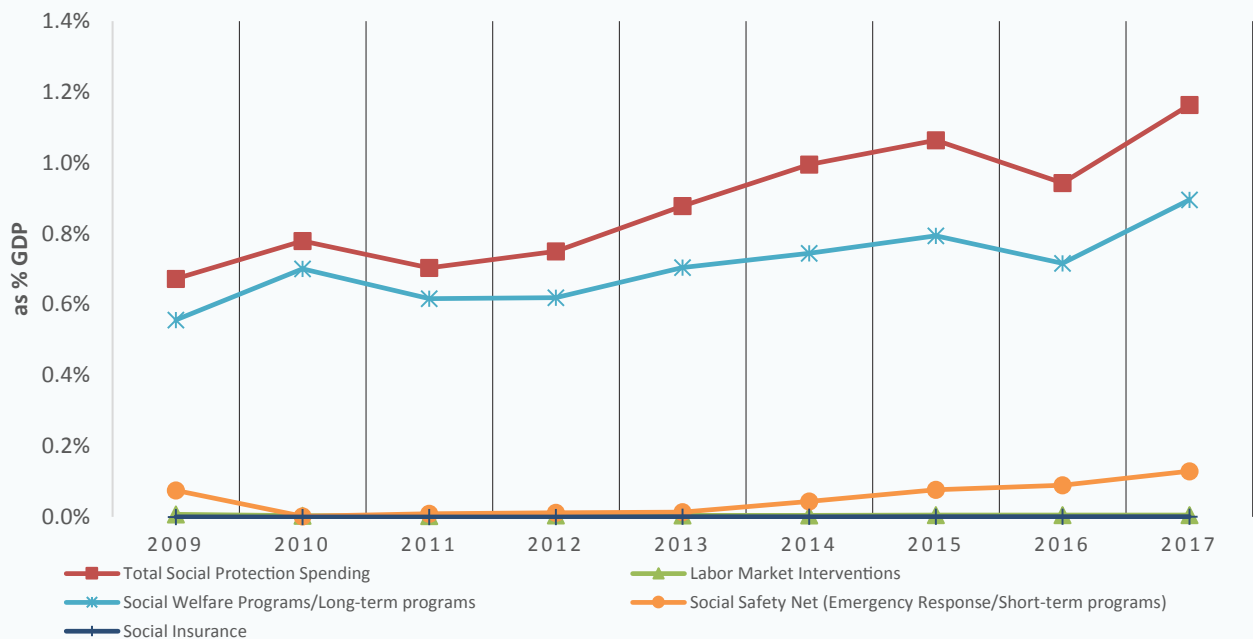
resilience of the poor and those who recently graduated from poverty,” and envisages that less exposure to risks and increased adaptive capacities will reduce individual and household vulnerability.⁵⁸ The PDP proposes an expansion of social protection coverage with the aim of enhancing equity, social cohesion, nation building, conflict management, disaster risk reduction and management, and human capital formation (endnote 57). As the COVID-19 pandemic has highlighted the significance of social protection programs and the need to enhance distribution systems, the Updated PDP 2017–2022 recognizes the need to focus on proactively reducing Filipinos’ exposure to risks and increasing their capacities to manage shocks, such as setting up registries for vulnerable sectors, expanding coverage of the Social Security System, and instituting employment insurance schemes (endnote 58).

Conceptual engagement on adaptive social protection is well advanced, including through incorporation into policy frameworks.

Adaptive and shock-responsive social protection has been incorporated into the revised Social Protection Operational Framework and Strategy, and reference to the concept has also been made in the Social Protection Plan 2020–2022. In June 2021, the National Disaster Risk Reduction and Management Council (NDRRMC) approved the adoption of the Philippine Roadmap on Adaptive Shock Responsive Social Protection (ASRSP) System, which was developed by the Food and Agriculture Organization of the United Nations in consultation with national agencies. This road map will serve as reference for strengthening social protection mechanisms and anticipatory actions. It shall be cascaded to local governments to sustain the programs.

The government had increased its financial contribution to social protection before the COVID-19 pandemic, although expenditure

**Figure 5.3: National Government Social Protection Expenditures, 2009–2017
(% of gross domestic product)**



GDP = gross domestic product.

Source: C.J. Diokno-Sicat and M.A.P. Mariano. 2018. *A Public Expenditure Review of Social Protection Programs in the Philippines*. Discussion Paper Series No. 2018-31. Quezon City, Philippines: Philippine Institute for Development Studies.

on social assistance and social welfare remains comparatively low. Government expenditure on social protection averaged 0.9% of gross domestic product between 2009 and 2017, representing approximately 5.9% of national government expenditure. While the social welfare component increased steadily (Figure 5.3), the average of 0.7% nonetheless remains around half of lower middle-income countries in Asia (1.5% of gross domestic product). Social welfare absorbed approximately 4.7% of the national budget and 73% of all government expenditure on social protection. Social insurance is predominantly financed by member contributions, but still represented an average of 0.8% of the national budget, while labor market interventions received the smallest budgetary allocation.⁵⁹

The governance and institutional framework for social protection is relatively well established. The national policy and strategy are guided by the Sub-Committee on Social Protection, which sits under the National Economic and Development Authority (NEDA) Board Social Development Committee of Cabinet and is chaired by DSWD and vice-chaired by NEDA. The Sub-Committee on Social Protection seeks to achieve greater synergy and program impact and is responsible for coordinating government agencies, recommending appropriate policies and programs, and advising the President and the NEDA Board on social development matters.⁶⁰ The urban dimension is well represented in this body, with membership including the Department of the Interior and Local

Government (DILG), the Department of Human Settlements and Urban Development (DHSUD), and Leagues of Municipalities, Cities and Provinces. The responsibility for implementation of individual social protection programs is divided among various agencies, departments, and LGUs.

Operational manuals have been developed and implemented with urban considerations in mind. In 2012, DSWD led the formulation of the Social Protection Handbook and the Social Protection Vulnerability and Adaptation Manual. The handbook serves as the primary reference in implementing social protection interventions from the national to local level, while the manual serves as the tool for assessing risks and vulnerabilities at the local level. In 2015, DSWD and DILG issued a joint memorandum, enjoining all provinces, cities, and municipalities to use the handbook in local planning and program implementation.

The main social assistance initiative is the Pantawid Pamilyang Pilipino Program (4Ps). It is implemented by DSWD and provides conditional cash transfers with the aim of improving health, nutrition, and education outcomes.⁶¹ The program covers about 24% of the population (23.7 million people), equivalent to more than 4 million household beneficiaries across all provinces, cities, and municipalities in the country (endnote 57). In 2019 and 2020, the 4Ps program assisted 1,042,558 and 1,066,044 household beneficiaries from cities (endnote 21). The primary beneficiary group is poor households with children aged 0–18 years and/or with pregnant women, although eligibility also extends to homeless street families, and indigenous people in geographically isolated and disadvantaged areas. The urban poor are an integral part of the 4Ps beneficiaries. The 4Ps uses proxy indicators for poverty collected from households to estimate poverty rates and decide on eligibility. The maximum duration of the program is

7 years, and payments are subject to households complying with health and education conditions, an Oath of Commitment, and a mutually agreed-upon household intervention plan, as well as attending monthly Family Development Sessions (FDS) that include information on family disaster preparedness.

There are several other smaller social assistance programs that provide support to poor households. Although not specific for the urban poor, these initiatives are also implemented by DSWD. They include supplementary and school feeding, and the provision of a social pension of ₱500 per month to senior citizens aged 65 years and over who are identified as poor. The total number of beneficiaries in 2015 was around 940,000 and represented about 20% of citizens in that age bracket. DSWD also implements the Risk Resiliency Program (RRP), which includes cash-for-work projects and activities for climate change adaptation and mitigation and disaster risk reduction (CCAM-DRR). The program was started in 2015 and provides 10 days of employment to poor beneficiaries for projects and activities such as cleanup drives, clearing of waterways, canal de-clogging, tree planting, community gardening, and recycling. Participants undergo training on climate change and environmental protection. The program is operational in 11 regions, 3 urban centers, and 16 major river basins.

Unlike many other countries, disaster response in the Philippines is closely coordinated with social protection. DSWD, the agency responsible for the 4Ps and chair of the Sub-Committee on Social Protection under the NEDA Social Development Committee, is also primarily responsible for disaster relief and recovery. DSWD has implemented a number of emergency response programs in recent years, and the 4Ps also functions as a source of emergency assistance. Beneficiaries

include victims of disasters due to natural and human-made hazards who have been rendered homeless and have no means of livelihood. Furthermore, the 4Ps was scaled up vertically following Typhoon Yolanda (higher transfers to existing beneficiaries), and its conditionalities were waived temporarily to help the beneficiaries deal with the impact of the typhoon.

The 4Ps also provides households with nonfinancial support to help prepare them for a shock. The topic of family disaster preparedness is incorporated into monthly FDS, with beneficiaries provided with printed material to serve as their disaster preparedness plan.⁶² It contains information such as emergency contacts and hotlines, a checklist of items in a disaster supply kit to place in an “emergency *balde*” (bucket), and pointers on how to prepare for each type of disaster (e.g., typhoon, flooding, landslide, storm surge). FDS also assist beneficiaries to identify early warning systems and evacuation routes in their community, assign responsibilities to family members, and decide on locations to meet in the event of a disaster.

Social insurance is mandatory for wage employees and subsidized for the poor. There are mandatory national contributory programs for both formal sector employees (Social Security System) and government employees (Government Social Insurance System). These schemes include disability, temporary work stoppage, and life insurance. The national health insurance scheme, PhilHealth, is compulsory for all wage employees, and includes hospitalization, outpatient services, and medicines. Health insurance is subsidized by the government for poor households (including all 4Ps beneficiaries) with the objective of achieving universal coverage (endnote 57). Although coverage is at 94% (as of 2018),⁶³

utilization is low and out-of-pocket costs remain high.

The Philippines is recognized internationally for its approach to social protection information management.

The National Household Targeting System for Poverty Reduction or *Listahanan* is an information management system that employs geographic targeting, household assessment, and validation in order to provide national government agencies, development partners, and other social protection actors with information on who and where the poor and near poor are.⁶⁴ Estimated family income generated through a proxy means test is compared to the poverty threshold in each province to determine if the family is poor or non-poor. Different coefficients are used to distinguish between urban and rural areas. This information is then used to identify and select potential beneficiaries for various poverty alleviation and social protection programs. In late 2020, the Philippine Statistics Authority also launched the Philippine Identification System (PhilSys), which prioritized the registration of at least 5 million heads of low-income households. Possessing a national identification will allow low-income household heads to open bank accounts for financial assistance or benefits from the government to be transferred digitally, especially in times of disaster or crisis.

***Listahanan* has strong relevance to adaptive social protection in urban areas.** A large number of national and international agencies draw on *Listahanan* to target emergency responses. Poor urban households are also included in the database, which is updated about every 4 years. Over 15 million households were assessed in 2015 (about 75% of the population), at least a third of the population were identified as poor, and over a fifth of all poor households were in urban areas. A third

round of *Listahanan* began its rollout in late 2019, but its completion was hampered by the COVID-19 pandemic. Beyond *Listahanan*, the Philippines is improving the strength and coherence of other delivery mechanisms. The 4Ps payment mechanism is gradually moving toward electronic modalities such as cash cards (about 6.6% of cash grants are distributed over the counter, as of February 2021), which also make it easier for the system to respond in the event of a disaster and households are displaced. Furthermore, DSWD intends to combine the information management systems from all programs it runs to establish an integrated system for social protection (endnote 57).


Challenges and Gaps

Social protection coverage for urban households in the Philippines is comparatively better than many other countries, although some of the vulnerable are likely missing out. Access to social protection schemes significantly enhances the capacity of urban families to be resilient in the face of shocks. Nationally, about three quarters of the poor live in rural areas and one quarter in urban areas. These are roughly similar proportions to the coverage of the 4Ps—for example, in 2012, 73% of beneficiaries were agricultural households. However, social assistance coverage is driven by targeting based on income poverty—and not vulnerability and multidimensional poverty considerations. If such considerations were taken into account, the eligibility for social protection in urban areas may be somewhat higher. For instance, urban multidimensional poverty in the Philippines is 16.3%, even though monetary poverty was much lower at 10.6%.⁶⁵ In 2015, 40.4% of urban residents were vulnerable to income poverty. Urban residents living in informal settlements are particularly likely to suffer from deprivations such as increased vulnerability to disasters

caused by natural hazards, and inadequate access to infrastructure and services.⁶⁶

COVID-19 has highlighted that informal workers, many of whom live in urban areas, are highly vulnerable to shocks. The “missing middle,” including many of the 75% of Filipino workers who are informally employed⁶⁷ and live on vulnerable incomes, are those who do not benefit from any form of social protection, except perhaps from health insurance. While coverage of the poor is generally strong in the Philippines, many informal workers living in urban areas may be excluded from social protection—and therefore have less capacity to prepare for or withstand shocks. There is a need to identify those newly poor due to COVID-19, including those who have lost jobs, got sick, or lost a member of the family who was a breadwinner or contributed to family expenses. The pandemic has demonstrated that urban residents are likely to require immediate support to withstand this type of covariate shock. Such support may need to include immediate provision of cash transfers or food supplies to poor or vulnerable households, including households who may be pushed into poverty through inability to work. Interventions are needed that address informal livelihoods and protect low-paid insecure workers, both to keep them in (safe) work and to fund health care when needed for vulnerable groups, childcare support, and food distribution.⁶⁸

The generosity of social assistance may be inadequate to address the needs of urban households, thus limiting their capacity to prepare for and withstand shocks. The dimension of adequacy considers the extent to which needs can be met, and the generosity of transfer levels is an important consideration in this regard. Compared with other countries, the Philippines ranks extremely low regarding the proportion of social assistance relative to consumption



Typhoon Ulysses-affected residents of San Mateo, Rizal, with the food support they received under the *Bayan Bayanihan* program.

needs. Social assistance represents just 10% of the consumption of the poorest quintile in the country, a level of generosity which will significantly hamper the potential impact on poverty of beneficiaries (endnote 57). That said, the 4Ps is estimated to have a poverty reduction impact of 1.4 percentage points,⁶⁹ although modeling suggests the impacts of food or cash for work are negligible (endnote 57).

Transfer values are not adjusted to reflect the cost of living in urban areas, nor indexed on inflation. Social assistance programs such as the 4Ps provide fixed levels of support for beneficiaries irrespective of location and needs. Yet, the cost of living is generally higher for urban households, driven by factors such as basic services, housing, and food. International evidence on urban social protection illustrates the importance of adapting social assistance to urban settings. This includes specifically assessing the costs and constraints faced by poor urban households, the role of human capital in strengthening urban resilience, and the tailoring of support and eligibility accordingly.⁷⁰ The benefit level for the social pension is not indexed, and the lack of adjustments between 2011 and 2016 led to a 15% decline in its real value (endnote 67).

Vulnerable households in urban areas face multifaceted constraints, some of which the social protection system helps to address. The human development dimensions of the 4Ps help to tackle the various needs of beneficiary households, including health, education, and nutrition. The FDS also provide an important and valuable source of information across a diverse array of issues, including children's rights, prevention of abuse, violence and exploitation, gender equity, and family planning. Climate considerations have also been integrated, with the 4Ps National Program Management Office, in partnership with the Disaster Response Management Bureau, having developed a FDS module on climate change and environmental protection. However, it is unclear whether there is an urban dimension to the FDS, focusing, for instance, on urban-specific climate risks and urban structural inequalities, such as gender norms, social rules, class, and uneven power relations—all of which intersect and contribute to the multidimensional vulnerability of the urban poor, including those who have migrated from rural areas.

Efforts are needed to improve coordination for urban issues. Local governments are important for social protection in at least

two ways: as a direct implementer of national and local social protection programs and as a coordinator of services across different sectors. Hence, convergence of social protection and resilience-building initiatives for the urban poor is more efficiently and effectively done at the LGU level to improve administrative sustainability of service delivery and optimize development outcomes. Current efforts to strengthen convergence at the local level are being hindered at each of the planning, implementation, monitoring, and evaluation processes for social protection programs. At the national level, despite a relatively well-established coordination structure, social protection programs still operate in silos, and the sector remains characterized by fragmentation and potential inefficiencies, including duplication of beneficiaries.

Challenges in terms of capacity and operational tools also exist. Understanding of social protection remains limited, with LGUs largely relying on national government programs and national agencies viewing social protection as primarily the concern of DSWD rather than a whole-of-government agenda. In addition, the Social Protection Handbook and the Social Protection and Vulnerability Assessment Manual, which were specifically formulated to mainstream social protection as a key strategy for inclusive development and to strengthen mechanisms for coordination at the different levels of governance, have not been updated recently.

While the coverage of *Listahanan* is impressive, it is not necessarily well equipped to identify those most affected by a shock. With the increase in intensity and frequency of disaster-related shocks, social protection programs have been used to provide a quick response through vertical and/or horizontal expansion to reach urban poor households. This is a global trend, and the 4Ps response to Typhoon Yolanda

is often cited as one of the first examples of vertical expansion, to which a range of institutional organizational and operational factors contributed.⁷¹ While programs such as the 4Ps can use *Listahanan* to develop a beneficiary list for an emergency response, there are constraints in terms of the frequency of updating, validating, and verifying its data. As *Listahanan* is only updated about every 4 years, it will likely not fully reflect the latest list of poor households in the immediate aftermath of a shock and therefore is not ideally prepared for expansions. Indeed, the social amelioration program for COVID-19 was hindered by use of outdated household data from 2015. Rapid onset disasters can lead to sudden changes in the welfare situation of households, which will not be reflected in *Listahanan*. Furthermore, the ways in which climate shocks and stresses affect the urban poor are not always direct. For example, they might present as food price increases (because of drought in rural areas) rather than the loss of a dwelling or job. The combination of various factors makes it complex for the social protection system to identify and reach those urban households most affected by sudden onset shocks.

Enhanced efforts are needed to incorporate climate and disaster issues in the targeting of social protection. A challenge facing policy makers is no longer only how to target social protection in urban contexts, but also how to target social protection in urban areas *in the context of disaster and climate risks*. Climate impacts may compromise human development goals, as the urban poor are disproportionately exposed to various shocks and stresses—including those triggered by natural hazards and climate change—and the effects of which result in loss or disruption of livelihoods, and loss of income.⁷² In many cases, these effects may require the urban poor to adopt negative coping strategies, including reducing consumption levels, incurring high levels of indebtedness, and making

investment choices regarding education, health, and livelihoods that may impact their long-term well-being and further affect their poverty level.⁷³ While *Listahanan* can help programs to identify urban poor households, the current targeting mechanism may give insufficient attention to identifying urban households vulnerable to climate and/or disaster risks. Current approaches will not include those households slightly above the poverty line that remain highly vulnerable and may slip into transitory poverty after each disaster. The data in the Community-Based Monitoring System (CBMS) already include climate and disaster risk variables, making the system a potentially useful source of information for programs and projects that cater to the urban poor.

The financing structures for disaster response are unclear and merit further attention. A thorough approach to contingency financing, an important ingredient of an effective approach to adaptive social protection, is currently lacking. Ensuring the availability of contingency funding for social assistance programs such as the 4Ps is crucial to enable the social protection system to respond accordingly and to allow expansion of transfer levels or caseloads during an emergency. Currently, the 4Ps does not have additional funds available to accommodate any expansions.

What Can Be Done?

Integrate “routine” social protection and preparedness actions to facilitate adaptive and shock-responsive social protection to strengthen urban resilience in the face of disaster and climate risks. Improvements to routine social protection can support urban poor households in reducing risk, such as reducing vulnerability, limiting exposure, and strengthening adaptive capacity (ex ante). Meanwhile, preparing the social protection system to deliver measures in response to urban

shocks can protect household well-being and support urban poor households in effective post-disaster response and recovery (ex post). Despite the complexities of coordination across sectors, linking urban beneficiaries with climate services and programs for livelihoods, skill building, financial inclusion, and social empowerment (especially of women) can help to strengthen livelihoods of poor and vulnerable households in the face of climate risk and increase their capacity to cope with shocks to build resilience by contributing to the accumulation of assets through livelihoods, which can be used in difficult times.⁷⁴

Tie social protection to disaster response and risk reduction efforts in areas where exposure to natural hazards is very high and poverty incidence is relatively high.

Cities with multiple exposure and relatively high poverty incidence can be targeted for disaster risk reduction-related cash-for-work projects under DSWD’s RRP. These can be utilized to provide temporary employment to poor beneficiaries and, at the same time, contribute to building long-term community resilience if labor is mobilized to build resilience-enhancing infrastructure. These projects may also be directed at employing low-cost, long-lasting nature-based solutions such as mangrove planting, reforestation, clean-up drives, clearing of waterways, canal de-clogging, community gardening, and recycling.

In a number of cities, these interventions may potentially achieve maximum benefits—namely the 15 cities with high exposure to floods, 33 to rain-induced landslides, and 6 to liquefaction, all of which have reported 21%–40% poverty incidence. The top 25 cities with the highest poverty incidence and multiple exposure to selected natural hazards found in Table 3.1 will also benefit from these interventions.

Explicitly incorporate climate considerations into urban social protection

initiatives and vice versa. Social protection programs can provide opportunities to strengthen urban resilience with a design that explicitly focuses on climate and disaster risk considerations for the urban poor and vulnerable. This involves considering the extent to which social protection can help urban residents *adapt* to climate shocks (e.g., strengthen their capacity to withstand extreme shocks without external financial assistance) and *mitigate* the risks in the face of changing climates and weather patterns (e.g., improve the capacity of urban beneficiaries to provide food and nutrition for their families).⁷⁵ The RRP CCAM-DRR initiative of DSWD is a step toward this direction. After years of implementation, a review and enhancement of the program have become imperative.

Expand urban coverage of routine social protection that recognizes the “missing middle” and multidimensional urban poverty to build resilience to shocks. Poverty can also be fluid, and many urban households hover around the poverty line and may be at high risk of falling into poverty in the face of community- or household-level shocks.⁷⁶ Vulnerability involves and entails not only present but also future well-being. Given the complex dynamics of poverty and vulnerability in urban areas, targeting for routine social protection coverage should also recognize those most vulnerable to shocks beyond the poverty line—with an emphasis on assessing the needs of informal workers, migrants, women, girls, people with disabilities, and other vulnerable groups (endnote 74).

Design transfer levels that are of adequate duration and account for high living costs, individual and household needs, and inflation. Strengthening the capacity of poor urban households to resist, absorb, adapt to, and recover from the impacts of climate- and disaster-related shocks without suffering

major setbacks will require adequate transfer levels. With urban areas particularly susceptible to food and fuel price changes, beneficiary households will remain poor or vulnerable if the level of transfers received is inadequate. It is also crucial to ensure transfers are designed to meet individual and household needs (e.g., household size and structure, age, gender, disability). Moreover, the effectiveness of social assistance measures will be impeded if the real value of transfers decreases due to inflationary pressures and no adjustments are made to restore purchasing power.

Strengthen and prepare the social assistance delivery systems to be capable of responding to shocks. The Philippines has made strong progress in enhancing its operational and payment systems to deliver social transfers to beneficiaries in a regular and predictable manner, and these efforts should be maintained and strengthened. It is crucial to pay attention to “future-proofing” the operational systems and processes that underpin social protection to ensure they can cope with a large and rapid influx of new beneficiaries, data, or money in the event of a shock. For instance, payment systems such as cash cards (including infrastructure such as ATMs) need to be able to operate in the midst or aftermath of a wide-scale shock. Contingency arrangements need to be in place in case documentation required for registration and enrolment is not readily available to rapidly displaced households.

Enhance *Listahanan* by incorporating disaster risk assessments, harmonization with other data sources, and more use of information and communication technology (ICT). Successful adaptive social protection is underpinned by accurate, relevant, and timely data, including with regard to early warning systems and emerging needs. Advancing resilience will require not only using proxy-income poverty but also integrating

poverty and vulnerability data with disaster risk assessments, while being mindful of current and future hazard exposure and risks. *Listahanan* data can start by georeferencing at the household level and overlaying hazard information to understand the degree of climate and disaster risks that the households are facing. There is also an opportunity to harmonize *Listahanan* with household data from LGU surveys such as the CBMS and Climate and Exposure Database, which are georeferenced, as well as other LGU-initiated household surveys. The approach taken by the CBMS to include climate and disaster risk variables may provide useful lessons for *Listahanan*. In addition, efforts to keep *Listahanan* updated can be supported by enhanced ICT for social protection, which aims to use real-time updating of the project's database management systems to improve beneficiary targeting and monitoring schemes, performance of administrative tasks, and delivery of cash transfers. The Updated Philippine Development Plan highlights fast-tracking the implementation of the PhilSys (National Identification System) and synchronizing the *Listahanan* with PhilSys to improve the delivery of responsive social protection services. Concerned agencies, such as PSA and DSWD, will explore linking the Philippine Identification Card (PhilID) to a digital payment system that will allow more efficient transfer of government assistance in times of crisis, pandemics, or disasters. The benefits of doing this was particularly felt during the COVID-19 pandemic when the timely provision of cash assistance to poor families in areas subject to lockdowns was particularly needed.

Capacitate local governments to design and deliver urban social protection programs.

It is crucial to understand the challenges and factors hindering convergence efforts at the local level and identify the skills gap to monitor and evaluate the implementation of urban social protection initiatives. Capacity strengthening

for the design and delivery of urban social protection programs should also engage local actors to help with setting the priorities and design of urban programs; participating in communications; contributing to advocacy and accountability efforts; and supporting processes related to targeting, identification, and payments.⁷⁷ Further, considering recent developments in adaptive and shock-responsive social protection, the passage of the CBMS law, and ongoing enhancements in the local development planning and budgeting process, the time is right to review and update the Social Protection Handbook and the Social Protection and Vulnerability Assessment Manual, which will be an important reference material to mainstream adaptive social protection in the local development planning process.

Develop a supportive enabling environment, including protocols, across social protection, climate change, and disaster risk management policies and plans.

Coordination between social protection, climate change adaptation, and disaster risk reduction and management systems is critical. Also crucial is establishing a clear structure that outlines the leadership of this agenda and a framework to ensure effective and efficient coordination between different agencies that handle social protection (DSWD), disaster risk reduction and management (National Disaster Risk Reduction and Management Council, or NDRRMC), and climate change adaptation (Climate Change Commission, or CCC). For example, effective inter-agency coordination is needed to agree on the design and implementation of emergency assistance and shock-responsive social assistance. The road map should lead to a continuum that sequences social assistance and disaster response instruments under a single overall planning, assessment, and implementation process. Preparedness efforts need to be developed in terms of triggers, protocols, and targeting, having due consideration to

future vulnerabilities, including climate and disaster risks. For instance, there needs to be procedural clarity on the appropriate triggers for vertical or horizontal expansion.

Enhance financing structures for adaptive social protection. For social protection programs to respond to shocks, access to finance is critical to support expansion of caseloads and/or transfer levels in a post-disaster situation. Financing allocations and channels should be preprepared so that funds can flow effectively when a shock happens and reach beneficiaries quickly. Arrangements for financing mechanisms for anticipatory action can be made. This means having pre-agreed funding sources in place at all levels of government which are of adequate size and are available to be disbursed through streamlined processes to meet the uncertain impacts of climate and disaster risks. The mix of instruments might include contingency budgets, multiyear national and local disaster reserves, contingent credit, and risk transfer instruments such as insurance. It may also be necessary to develop dedicated sources of finance for strengthened investment (including domestic revenue generation), while ensuring that current

financing is maintained in the face of intensified competition for limited funds. To build the case for contingency financing, evidence on the cost-effectiveness of post-disaster expenditure in the Philippines may be useful in advocating the creation of fiscal space.

Direct urban social protection measures in the Philippines to capitalize on the growing momentum to “build forward sustainably” in the wake of COVID-19.

By viewing social protection as an important adaptation strategy, the opportunity for accessing climate finance for such investment will also potentially increase. Urban social protection should be specifically incorporated into the forward agenda of the Cabinet Cluster for Climate Change Adaptation, Mitigation, and Disaster Risk Reduction (CCAM-DRR), which is taking the lead in the effective integration of policies and programs on climate risk management, disaster risk reduction, and sustainable development. The CCAM-DRR road map is aimed at achieving climate- and disaster-resilient communities supporting equitable and sustainable development, with a crucial role for urban social protection.



Livelihoods

Livelihood is a critical component of resilience as it determines an individual or household’s options on housing, education, health, and access to critical services that affect their well-being. The ability of urban residents to generate their own income plays a significant role in ensuring that their basic needs are being met and in accumulating assets that can be used in difficult times.

Insecurity and informality are primary features of the livelihoods of the urban poor, whether they are employed or self-employed. The urban poor are engaged in a variety and sometimes multiple livelihood activities that generate low and unstable income. For those who are employed, the informal nature of their livelihoods translates to lack of any form of income protection or

associated social benefits. Informal settlements also lack the basic infrastructure—clean water, legal power, adequate sanitation and sewerage, and access to roads with proper drainage—that enable micro-businesses to thrive as well as protect them from climate-induced hazards.

Climate-related shocks and stresses have a significant impact on the livelihoods and income of the urban poor. Extreme weather events, particularly torrential rainfall, have been found to adversely affect both agricultural and nonagricultural income in the Philippines. The effects of rainfall shocks on entrepreneurial incomes are also evident and are fairly robust on services and industrial incomes.⁷⁸ Although cities with a significant segment of their labor force dependent on agriculture, forestry, and fisheries are relatively few in the Philippines, these populations suffer the most from climate-induced disasters and manifest the highest poverty incidence. Climate change intensifies slow- and rapid-onset hazards that disrupt livelihood activities and the supply chains on which urban poor informal employment or micro-businesses rely. As such, the urban poor often suffer reduced income, forcing many of them to take on additional or temporary jobs (where available), reduce food consumption, and take out loans from multiple sources.⁷⁹ In addition, the need for the urban poor to focus on daily subsistence issues, coupled with their often low levels of educational attainment, means that preparing for climate change is not a priority. The disproportionate impact of climate shocks on wages and entrepreneurial income of the urban poor points to the need to focus on livelihoods as a critical issue for building inclusive and resilient cities.

What Is in Place?

The Department of Labor and Employment (DOLE) is the primary policy-making, programming, coordinating, and

administrative entity on labor and employment. It assumes the primary responsibilities of promoting gainful employment opportunities and optimizing the development and utilization of the country's workforce resources; advancing workers' welfare by providing for just and humane working conditions and terms of employment; and maintaining industrial stability by promoting harmonious, equitable, and stable employment relations that assure equal protection for the rights of all concerned parties.

The Public Employment Service Office (PESO) is the local arm for job placement and employment facilitation. LGUs operate and maintain the PESO, though in some areas, an accredited NGO, CBO, or a state university or college takes on the responsibility. The PESO monitors labor market information (e.g., available and projected jobs of local establishments, enterprises, and recruitment agencies) and shares it with educational institutions (for employment coaching and career guidance of students), local job seekers, and entrepreneurs.

The DOLE Integrated Livelihood and Emergency Employment Program (DILEEP) promotes livelihoods and entrepreneurship among poor and vulnerable sectors, and provides emergency employment and assistance to communities affected by disaster. The DOLE Integrated Livelihood Program or *Kabuhayan Program* is the first major component of DILEEP, which provides grant assistance for capacity building on livelihood and entrepreneurial ventures for vulnerable and marginalized workers, either for individual or group livelihood projects. The *Kabuhayan Restoration* subcomponent provides working capital for the reestablishment of lost or damaged livelihoods due to disaster events or calamities. The Emergency Employment Program or *Tulong Panghanapbuhay sa Ating Disadvantaged/Displaced Workers* (TUPAD),

the second major component of DILEEP, is a community-based (municipality or barangay) package of assistance that provides self-employed workers, including farmers and fishers who have lost their livelihoods due to disasters events or calamities, with emergency employment.

Following the enactment of the Green Jobs Act in 2016 and the Implementing Rules and Regulations in 2017, DOLE has also been responsible for developing a green jobs database and formulation of a “Green Jobs Human Resource Development Plan.”

DOLE sits as an advisory board member of the Climate Change Commission and, together with other agencies, supports the implementation of the Green Jobs Act, which affirms the key role of labor as a primary socioeconomic force for sustainable development and the need for workers to be skilled enough to adapt to and contribute to the country’s transition to a green economy. A significant area of emphasis of the act is to promote a green economy to pursue a just transition to a net-zero economy where job security is ensured, decent jobs are created, and resilient livelihoods and communities are maintained, contributing to poverty reduction and social justice. DOLE implements the law in cooperation with other government agencies such as DENR, DILG, DTI, and NEDA.

In response to COVID-19, DOLE implemented the TUPAD #Barangay Ko, Bahay Ko (#BKBK) Program to help cushion the impact of the pandemic, especially among informal sector workers in urban poor communities. Under the program, beneficiaries were engaged in disinfecting and sanitizing their respective houses or dwellings and immediate vicinities for 4 hours a day for a maximum period of 10 days, while observing physical distancing and other minimum health standards. Beneficiaries were paid the prevailing minimum wage in their respective regions.

DOLE also implements sector-based capacity-building programs. JobStart Philippines is an employment facilitation program that targets at-risk youth as its beneficiaries. These are young adults aged 18–24 years who are not in education, employment, or training, and belong to lower-income or marginalized households. In addition, the Government Internship Program aims to provide opportunities and engage beneficiaries, including those hit by natural hazards and human-induced calamities, to serve the general public in government agencies and entities, projects, and programs at national and local levels.

DSWD implements the Sustainable Livelihood Program (SLP) to complement the interventions of the 4Ps. The SLP is a capacity-building program that aims to improve the socioeconomic well-being of identified poor, vulnerable, and marginalized households and communities by providing access to economic opportunities and resources. The program participants (beneficiaries) are assisted by helping them establish and manage a small enterprise through its Microenterprise Development (MD) track and by facilitating their employment in local jobs through its Employment Facilitation (EF) track. It offers various modalities under each track such as the Seed Capital Fund (SCF), Skills Training (ST), Cash for Building Livelihood Assets (CBLA), and Employment Assistance Fund (EAF). The SCF modality provides program participants start-up or expansion capital for the purchase of raw materials, tools, or assets needed for establishing a microenterprise. The ST modality helps the program participants acquire technical and vocational knowledge and skills needed for managing a business or securing employment. The CBLA modality implements labor-intensive projects executed by the program participants to build, rebuild, and/or protect natural and physical assets necessary

for more profitable, sustaining, and resilient microenterprises. The EAF modality is a subsidy used to acquire employment requirements such as legal documents, medical exams, licenses, uniforms, and tools, as well as meals, lodging, and transportation for the first 15 days of guaranteed employment.

From 2015 to 2019, SLP served a total of 1,232,927 households under the MD track and 404,511 households under the EF track.⁸⁰ Partial data of calendar years 2015–2019 show that 14.20% or 175,028 households under the MD track and 4.57% or 18,497 households under the EF track are located in highly urbanized areas and urban barangays. From these served households, 10.9% or 19,095 households were engaged in closed or nonoperational microenterprise projects, while 20.8% or 4,049 households attributed the closure of their microenterprise to disaster and climate change. Further, 5.20% or 962 participants were already unemployed.

The Technical Education and Skills Development Authority (TESDA) is the primary government agency for technical and vocational education and training. It formulates plans and policies for the technical and vocational education and training sector, implements research and studies, and disseminates relevant data and information to inform government decision-making bodies. The Technical Education and Skills Development Authority (TESDA) has a proactive job-matching process between domestic and international jobs by finding and training the right workers. It provides direct school-, center-, community-, and enterprise-based training. Community-based training is undertaken in coordination with LGUs and other stakeholders, such as DSWD. The adoption of the National Technical Education and Skills Development Plan 2018–2022 aims to “mobilize and encourage the full participation of industries,

the labor sector, government units and relevant educational institutions in the development of the Philippines’ human capital resources.”⁸¹ As skills development is a key component for the urban poor to access work, TESDA’s programs have the potential to contribute to building the resilience of this group.

The Department of Trade and Industry (DTI) implements programs and services to develop resilient micro, small, and medium-sized enterprises (MSMEs) and generate more jobs for the poor. DTI, which also supervises TESDA, is the primary government agency for coordinating, promoting, facilitating, and regulating the country’s trade, industry, and investment activities. It implements a wide range of interventions and strategies to promote entrepreneurship and protect MSMEs from the impacts of covariate shocks. DTI established more than 1,100 Negosyo Centers nationwide, where MSMEs can access training programs and services for document processing, product development, and market access. Through the Small and Medium Enterprises Roving Academy, the Kapatid Mentor ME program, Negosyo Serbisyo sa Barangay program, and DTI-Pangkabuhayan sa Pagbangon at Ginhawa (DTI-PPG), the government department provides interested individuals with the know-how and how-to of entrepreneurship: from setting up a business, basic rules of spotting market opportunities, product positioning and differentiation, product development, market development, basic business finance and plan preparation, and development of a system for continuous innovation.

Through the Pondo sa Pagbabago at Pag-asenso (P3) being administered by the Small Business Corporation (SB Corp), DTI assists MSMEs to grow their businesses through low-interest loans. With advanced financial technology, SB Corp plans to set up credit delivery partners within

a 1-hour commute from the microenterprise communities, as well as directly release loans to the debit cards issued to the borrowers. SB Corp clients may also perform business transactions or pay monetary obligations to SB Corp via the internet.

DTI provides MSMEs access to machines and equipment to ensure quality production under the Shared Services Facility (SSF) program.

Under the SSF initiative, DTI also started establishing Fabrication Laboratories (FabLab) to help grassroots communities, by allowing MSMEs to make prototype-scale models of their products with the help of advanced technology. By the end of 2019, DTI has established 27 FabLabs nationwide, 23 of which are in select state universities and colleges, and regional campuses of the Philippine Science High School System. DTI also helps MSMEs promote their products and expand their market through provincial and national trade fairs, “One Town, One Product” shows, *Go Lokal!* retail store concepts in major malls, and internationally recognized exhibitions. In 2018, DTI and the Department of Science and Technology (DOST) partnered to promote Filipino innovation, or “Filipinovation,” for entrepreneurs. Through this, One Town, One Product and *Go Lokal!* entrepreneurs were merged with hubs of DOST’s oneSTore.PH, which is the first government e-commerce platform (business-to-customer and business-to-business) dedicated to marketing high-quality Filipino products of MSMEs.

DTI has integrated climate resilience in its MSME interventions through Green Economic Development.

In recent years, DTI has been conducting learning and sensitization as well as business advisory and MSME matching events with green business development services, green technology suppliers, and green financing companies. Greening refers to the use of processes,

business practices, and technologies to improve efficiency in the use of power, water, and resources; reduce adverse impacts on the environment; improve solid waste and wastewater management; reduce water and air pollution; reduce climate-related risks; and produce green products and services.

Challenges and Gaps

Livelihoods in the informal economy are highly vulnerable to the impacts of disasters and climate change, as well as of COVID-19.

The urban poor, particularly those living in informal settlements, are likely to have their livelihoods, work, and source of income also located in low-lying areas or other risk prone areas.⁸² Informal workers are frequently engaged in activities that are already hazardous to health (as discussed in section on public health, p. 66), involving strenuous labor with limited provision of occupational health and safety. They are also subject to uncertainty of work and income, low earnings, and susceptibility to exploitation and lack of social protection. Informal workers may include laborers and unskilled workers who comprise 25.6% of the employed population in 2020 and receive the lowest income among the major occupational groups (endnote 23). In 67% of cities in the country, these workers account for 21% to 40% of the labor force, indicating the size of the population vulnerable to work disruptions caused by disaster events. Meanwhile, the self-employed are faced with the challenge of having very limited access to financing, especially formal bank credit, and a high fixed-cost of credit.⁸³ This can make informal livelihoods precarious in the face of shocks and stresses. However, the inherent flexibility and resourcefulness of workers in the informal economy also equip them well to take advantage of new opportunities that may also arise as a result of disruptions.⁸⁴

The urban poor working in the formal economy, particularly in low-skilled jobs,

can also be affected by disasters and climate change. A World Bank study on livelihoods for the ISFs suggests that most urban poor view wage employment as more secure and therefore preferable, while engaging in a microenterprise is perceived as being risky and as an option taken only “out of necessity” (endnote 37). With low levels of formal education and without the required skills and experience, however, the urban poor cannot participate in a competitive labor market that demands an educated and skilled workforce (e.g., business process outsourcing). Employment prospects in the manufacturing sector are inadequate; as of 2018, this subsector of the industry sector employs only about 8% of the total labor force.⁸⁵ Extreme weather events cause damage to business assets and infrastructure, forcing companies to move to safer locations, sometimes out of the cities (i.e., economic zones), resulting in worker displacement.⁸⁶ This forces the urban poor to settle for casual or contractual employment (e.g., grocery cashiers, contractual factory workers) and to undertake more insecure and low-paid activities in the informal sector (e.g., public utility vehicle drivers, manual construction workers, petty retail traders) or even illegal activities.

Although the Green Jobs Act emphasized decent work and human capital as integral elements of a just transition to a green economy, much of its implementation has focused on industries, enterprises, and the larger formal sector. Further detailed in the National Green Jobs Human Resource Development Plan 2019–2022, the only worker-specific progress can be attributed to the greening of 33 out of 246 training regulations.⁸⁷ Support for a just transition has also been limited to government, workers, and employees’ organizations, which leaves out the informal urban poor workers. While some urban poor communities participating in social and livelihood programs also benefit from

TESDA training, initiatives are not yet mainstreamed to explicitly benefit informal urban poor workers who are often not part of trade and labor unions, in programs that promote green jobs and decent work for a just transition.

MSMEs are vulnerable to the impacts of disasters and climate change. Although in many cases MSMEs—in which the urban poor may also be employed—can be flexible and responsive, and are therefore well placed to cope with changing physical and economic conditions, they can also be susceptible to harm from disasters and climate change. A recent survey indicated that 71% of SMEs in the Philippines had experienced hazards that affected their business operations, causing their operations to cease. These hazards also cause broader disruptions such as⁸⁸ This is significant for the urban poor: not only those who work currently in MSMEs, but more generally because of the potential for this sector to generate jobs and alleviate poverty.

Urban poor women are unable to pursue the same opportunities in the job market as men because of cultural and social barriers. Women’s vulnerability to climate change stems from a number of factors: social, economic, and cultural. Women’s labor force participation is lower than men’s because of inadequate employment and decent work opportunities, domestic labor and care constraints, and social norms.⁸⁹ They are expected to do the bulk of unpaid domestic work, including child-rearing and domestic chores, keeping them from the job market. The lack of childcare facilities in the workplace also hinders their opportunity to pursue higher-paying jobs.

Where urban poor women are able to work, this is often informal, precarious, and low paid in nature. According to the Center for Trade Union and Human Rights, an NGO that has been monitoring the socioeconomic effects

of climate change on urban poor women and women workers:

“Increasing global temperature has a direct effect on job availability for urban poor women in Manila. The women rely primarily on factory work, local markets, domestic work, or other miscellaneous jobs like street sweeping or laundry. [As casual workers], the women only get paid when they work, [thus the higher incidence] of typhoons and heavy rainfall prevents the women from getting to work. When factories close temporarily due to bad weather it is women who are called off first and called back last because men usually take the jobs of fixing the factories after storms. Rising temperatures also make jobs like street sweeping or selling goods in the local market unbearable, cutting off another source of income for urban poor women.”⁹⁰

The scale of climate change impacts on the livelihoods of the country’s urban poor has not been studied as extensively as on those making a living in the agriculture sector. Frequent storms and flooding disrupt transportation systems and damage wastewater systems and business structures, and extreme heat (intensified by the urban heat island effect) makes manual work insufferable and depletes freshwater supply. The urban poor have less capacity to cope with financial hardships following the erosion of assets and loss of sources of livelihoods from climate-related

events. It is not uncommon for the urban poor to resort to informal moneylenders who can immediately issue small loans but at high interest rates. In addition, urban redevelopment and disaster mitigation relocation policies, which often include displacement and off-city resettlement, can pose significant adverse livelihood impacts by moving people away from the locations where they earn incomes.

Workers in the agriculture, forestry, and fishing sector are among the most susceptible to the impacts of disasters and climate change, considering the dependence of their livelihood on weather and climate, yet their presence in urban areas is rarely recognized.

Since the Philippines has many coastal cities, urban poor workers engaged in fishing constitute a significant and particularly vulnerable segment of the country’s urban poor population. The urban fisherfolk are doubly vulnerable because their source of livelihood is subject to climate risk and their need to be near the sea puts them and their homes at risk of climate-induced disasters, as well as of violating zoning laws, which prohibit settlements in coastal areas.

Existing programs to strengthen livelihoods of the urban poor have significant limitations.

Many of the programs made available to ISFs by the government, NGOs, and development partners have focused on enhancing livelihood skills toward self-employment and supporting small-scale informal microenterprises through microfinance. In a separate study, the World Bank noted the failure of such interventions to achieve optimal results because of the lack of sound market analysis to determine how the supply of services and products matches the demands and needs of the local economy (endnote 32). Many of these small-scale businesses have low value vis-à-vis the market and not many ISFs participating in programs



A worker unloads tuna from fishing vessels at the General Santos City Fish Port Complex in South Cotabato.

supporting self-employment have the needed management skills and personal characteristics to sustain them.

The pandemic highlighted new vulnerabilities for individuals who are unable to work from home as well as MSMEs that cannot sustain operations due to community lockdowns and restrictions.

It is not feasible for all workers to have jobs that can be done at or close to their home. A portion of the population who lost their jobs due to the pandemic tried e-commerce and digital marketing of food products, apparel, and other household needs. The coping mechanisms and innovative strategies developed in response to the economic crisis brought about by

COVID-19 require further study and support to be sustained in the long term.

What Can Be Done?

Check livelihood support programs, and ensure appropriate disaster and climate change information is widely available and utilized. Analysis is needed on the potential impacts of climate change on livelihoods of the urban poor, including direct and indirect impacts. This analysis must inform livelihood program design so that ways to minimize the impacts of disasters on the livelihood activities included in programs can be innovated and promoted throughout. The result of this analysis also needs to be made widely available and

accessible to the people who undertake the various at-risk livelihood activities so that they can prepare in advance and make informed decisions about how to resolve their livelihood challenges. The range of climate-related health hazards to which the urban poor are exposed in their homes and workplaces must also be considered (as described in section on public health, p. 66) and communicated to those at risk. There is a need for better awareness of the dangers of heat, as well as mitigation options, such as increased green spaces through tree planting, provision of public water fountains, and shade.

Ensure programs to support livelihoods take account of appropriate market analysis.

Government and NGO programs for livelihood and employment support can contribute more effectively to the resilience of low-income urban residents if they incorporate comprehensive market analysis and appropriate systems for value addition of products and services of the urban poor. This will permit the government to gauge the types of jobs possibly becoming redundant and provide insight into rising sources of employment. This is crucial for building the resilience of poor households in a cash-based urban economy. Existing programs can be maximized by ensuring they are informed by a market analysis that recognizes a wide range of livelihood categories and interventions, given that urban livelihoods, especially in poor areas, are diversified. Linked to this is a need to ensure closer collaboration with the private sector to cut bureaucratic red tape and reduce some key constraints to employment generation. It is also important to take into account how priorities differ across urban contexts. A recent report indicated that: “Basic Services and Income Generation... either come in as a close second in communities where land tenure insecurity is high, while they take on top priority status where land tenure security issues are minimal. For small and medium-sized cities, Income Generation and

Basic Services would dominate except where a few clusters of informal settlers are immediately subject to eviction.”⁹¹

Integrate livelihood interventions, particularly from the informal economy, into the broader urban economic system.

If the livelihoods of the poor are recognized as part of the urban economic system, they are more likely to be supported by systems that enable them to cope with shocks and stresses. At the same time, these need to include measures in relation to occupational health and safety among urban poor workers, social protection services, and safeguards against child labor. COVID-19 has significant implications for this, for example in relation to the risk of child labor.⁹² This integration will require establishing a common livelihood framework to guide different government agencies in providing livelihood interventions. These interventions should also take particular account of the role of women in the informal economy and focus on creating ways to protect those livelihood activities from the risks associated with climate change and disasters.

Labor-intensive community-based employment projects can help to diversify livelihoods for the urban poor.

Long-term climate change adaptation strategies and plans of cities may offer opportunities for employment, especially for those participating in the SLP (e.g., the RRP as discussed in section on social protection, p. 44). Community endeavors that focus on the environment more broadly can also eventually be transformed into livelihood-supporting activities. Urban agriculture and farming programs may provide the urban poor with food and a source of potential income and employment while ensuring food security and nutrition. The growing demand for sustainable production and consumption, including in relation to low-carbon urban development (e.g., the use of more environment-friendly building materials),

can also create livelihood opportunities for the urban poor and generate climate change mitigation co-benefits.

Increase capacity of MSMEs and their urban poor workers to prepare for and recover from disasters and climate-related shocks.

As MSMEs employ a large number of the urban poor, the negative impacts on this sector of the economy will adversely affect the livelihoods of this group. Many of the needs of MSMEs will overlap with broader needs for community and urban resilience (e.g., ensuring rapid restoration of basic services that enable employees to return to work and facilitate the operation of business equipment). Provision also needs to be made for low-income workers who may be affected by disruption to MSMEs. This could be through microinsurance held by individuals or by a broader system covering this sector of the economy as a whole. The Magna Carta for Micro, Small and Medium Enterprises Development (RA 9501), the national policy for MSME development, refers to resilience in its vision, aiming for “more globally competitive MSMEs that are regionally integrated, resilient, sustainable, and innovative thereby performing as key drivers of inclusive Philippine economic growth.” However, resilience also needs to be further incorporated into the national laws and institutions that are targeted for broader MSME development, as these are better placed to address business continuity issues

(endnote 88). Investing in infrastructure (especially key transport hubs), building the capacity of MSMEs to undertake disaster preparedness planning, working across supply chains to reduce risk, and putting price stabilization policies in place could help ensure resilience of the sector and the livelihoods it provides for the urban poor. Support to the MSMEs may also be in the form of disaster risk insurance to sustain business operations.

Maximize livelihood opportunities for the urban poor through the Green Jobs program and Decent Work agenda of the government.

The enactment of the Green Jobs Act in 2016 provides opportunities for the urban poor to access decent jobs and contribute to the resilience against climate change. It specifically emphasizes pursuit of “a just transition for all, job security for workers affected by the transition process which drives economic prosperity, decent job creation, sustainable and resilient livelihoods and communities, poverty reduction and social justice, anchored on social dialogue and tripartism at all levels.”⁹³ With current government efforts more focused on green jobs through industries, firms, and enterprises, the cooperation of the private sector as a primary employer can have a crucial role in providing green jobs and decent work for the urban poor.



Public Health

Climate change could introduce additional shocks and stresses on the health of low-income urban residents. The urban poor, particularly those living in slums and other

low-income neighborhoods, already face a range of health risks from both communicable and noncommunicable diseases (NCDs). The consequences of ill-health for the

urban poor are often significant: as well as the direct effects of illness, the knock-on effects of inability to work can cause people (and households) to fall deeper into poverty, which in turn can further worsen health.⁹⁴

Climate change is expected to both worsen existing urban (and slum) health issues and create new ones. There will be increased health risks from lost work capacity and reduced labor productivity in vulnerable populations; and increased risks from foodborne and waterborne diseases during the 21st century.⁹⁵ Heat waves are associated with increased levels of illness and death, with the urban heat island effect exacerbating such conditions in large cities.⁹⁶ Recent evidence shows that chronic kidney disease, associated with prolonged exposure to high temperatures and dehydration, is also associated with climate change and heat. There are also links between higher temperatures and poor air quality, which is more frequently experienced in urban areas, with respiratory illnesses associated with ozone and particulates expected to rise.⁹⁷

Living in low-quality housing in crowded settlements with limited open space and engaging in physically active outdoor occupations (e.g., public transport drivers, construction workers, ambulant vendors) make the urban poor in the Philippines highly susceptible to negative health impacts from extreme temperatures in already heat-stressed cities. Extreme heat and heat waves affect the risk of mortality among young and male populations, regardless of income status, in four major cities in the country.⁹⁸ Another study on Manila showed how sustained high temperatures elevate the risk of dying among key populations, such as older persons and women.⁹⁹

One pathway by which climate change could impact on health is water.¹⁰⁰ Sea level rise may

exacerbate the degradation of the quality of groundwater, which urban poor communities, especially in coastal areas, use for drinking, household activities, and livelihoods. Studies suggest that excessive extraction of groundwater in shallow aquifers in coastal cities such as Cebu City and Cavite City has been the main driver of salinization.¹⁰¹ However, with the Philippines experiencing sea level rise as high as 14.7 ± 4.4 millimeters per year—considered a significant level as against the average levels due to regional variations—increased salinization of fresh water puts the health of coastal populations at jeopardy.¹⁰² High salt intake is a major risk factor for increased blood pressure or hypertension. The availability of adequate and clean water is also likely to be affected by climate change. This, in turn, increases the risk of diseases such as diarrhea, cholera, and parasitic diseases, and deters hand hygiene to prevent transmission of viruses such as the one that causes COVID-19. The reduced amount of rainfall experienced in the second half of 2019 brought severe water shortages in Metro Manila, which forced water utility companies to resort to scheduled water interruptions. Urban poor households, which have little capacity to store water and sometimes rely on community taps to source water, have been severely affected.

Extreme weather events (e.g., drought, floods) may also have significant health impacts on the urban poor. With greater rainfall, combined with warmer temperatures, waterborne and communicable diseases such as dengue fever and leptospirosis become more likely. In the Philippines, there is a clear correlation between the incidence of dengue fever and rainfall.¹⁰³ Floods from rainfall often occur in urban poor communities, many of which have poor drainage or are located along rivers and tributaries.

What Is in Place?

The Universal Health Care Act is the foundation for health care for all Filipino citizens.

In a country where more than half of the total health spending comes from a household's out-of-pocket payments, accessing health care is daunting for the urban poor.¹⁰⁴

To address the need for inclusiveness, quality, and continuity of health care, the Universal Health Care (UHC) Act (Republic Act No. 11223) was signed into law in February 2019. It automatically enrolls all Filipino citizens in the National Health Insurance Program administered by the Philippine Health Insurance Corporation (PhilHealth). Along with reforms in the health-care delivery system, such as improved medical facilities and maintenance of adequate health-care professionals, the program grants citizens, especially those who cannot afford such services, access to preventive, curative, rehabilitative, and palliative care. This is intended to reduce out-of-pocket medical expenses, which remain the main source of health spending among Filipinos. The UHC Act makes citizens in both urban and rural areas eligible for “no balance billing” or free hospitalization, which covers basic accommodation in a public or private hospital for any disease covered by PhilHealth, among other entitlements. This policy enables the vulnerable members of the program such as the poor and older persons to pay no more in excess of their PhilHealth coverage when confined in government hospitals. Republic Act No. 10645, which amended the Expanded Senior Citizens' Act of 2010, qualified all senior citizens, whether indigent or not, to receive at least a minimum package of health insurance benefits. As of 2019, 55% of cities have at least 61% of their population covered by PhilHealth. Of the cities in the first to third income class category, 80% have PhilHealth coverage of at least 81%. In lower income classes, however, three cities recorded more than 80% coverage. In terms of poverty incidence, cities that are

relatively less poor (< 20% poverty incidence) generally recorded higher coverage (at least 81%), except for two cities that have less than 40% coverage. Among the 107 component cities, 14 have the lowest PhilHealth penetration rate (below 40%)—13 of which are coastal cities and therefore likely exposed to climate risk.

Health is identified as a priority in key national climate change documents.

The National Framework Strategy on Climate Change 2010–2022 prioritizes the following strategies to establish a “climate responsive health sector”: (i) assessing the vulnerability of the health sector to climate change; (ii) improving climate awareness and increasing responsiveness of public health systems and service delivery mechanisms to climate change; (iii) establishing mechanisms to identify, monitor, and control diseases brought about by climate change; and (iv) improve surveillance and emergency response to communicable diseases, especially climate-sensitive, waterborne, and vector-borne diseases.¹⁰⁵ On the issue of food security, the strategic priority conveyed in the National Climate Change Action Plan 2011–2028 aims to “ensure availability, stability, accessibility, and affordability of safe and healthy food amidst climate change.”¹⁰⁶ Interventions, however, are directed at the rural sector. The plan also includes the development of a public health surveillance system for climate change-sensitive diseases, to be implemented at the community level by the Department of Health (DOH) and other agencies (DSWD, DILG, and the LGUs). Existing systems include the Philippine Integrated Disease Surveillance and Response, the Event-based Surveillance and Response, and the Surveillance in Post Extreme Emergencies and Disasters.¹⁰⁷

The COVID-19 pandemic has highlighted many of the health issues facing the urban poor, and has strengthened political and public opinion on the need to address

these. One consequence of the pandemic has been a greater recognition of the need to strengthen the overall health-care system of the Philippines. This includes a stronger justification to provide and improve basic services, especially with respect to water and sanitation, in the areas where the urban poor live. It also emphasizes the need to provide access to open spaces and to broaden opportunities for mobility—issues that also particularly affect the urban poor. The mobilization of *Kadiwa* rolling stores to provide relatively low-cost food items seems to have been effective in reconnecting food producers with consumers, with possible implications for disaster response and longer-term resilience.

Climate change has also been identified as a priority for the health sector.

In 2012, DOH adopted a National Policy on Climate Change Adaptation for the Health Sector, which “encourages mainstreaming of climate change activities into ongoing DOH programs and will increase the capacity of other health programs and local government units to manage climate change impacts.”¹⁰⁸ Recognizing the potential health impacts of climate change to population groups residing in areas exposed to climate risk, DOH developed the National Climate Change Adaptation in Health Strategic Plan 2014–2016 “to direct the country’s efforts toward comprehensive climate change adaptation in the health sector.” The report recognizes the particular impacts of climate change on health in urban areas, and focused on 20 high-risk provinces, including Metro Manila, based on projected rainfall change, temperature increase, typhoon risk, and El Niño-related drought.¹⁰⁹ Although not explicitly addressing the health impacts of climate change on the urban poor, many of the impacts identified (e.g., risks of flooding and landslides, distress migration, disruption to livelihoods) clearly affect this group. The 2017–2022 National Unified Health Research Agenda, which was developed under the Philippine National Health Research System

anchored by the Philippine Council for Health Research and Development, identifies health resilience as a priority thematic area with climate change research as a component.

Although not explicitly designed as responses to current and potential health impacts of climate change to the urban poor, existing DOH programs that target those vulnerable to diseases exacerbated by climate-related disasters include the following: Dengue Prevention and Control Program, Emerging and Re-emerging Infectious Disease Program, Expanded Program on Immunization or EPI, Food and Waterborne Diseases Prevention and Control Program, Malaria Control Program, Measles Elimination Campaign (*Ligtas Tigdas*), and National Tuberculosis Control Program.

The 5K Strategy “*Kaligtasang Pangkalusugan sa Kalamidad sa Kamay ng Komunidad*” is also aimed at building health resilience in the face of disasters at the household and community levels. In this strategy, LGUs are encouraged to build their own capabilities to be resilient by equipping families with basic information and necessary skills to prevent deaths, diseases, injuries, disabilities, and health system damage and losses occurring from emergency and disaster situations.

There have been efforts to strengthen urban health systems and address occupational health, including for informal sector workers.

In 2011, DOH sought to improve health outcomes and reduce health inequities in cities through the Urban Health System Development Program. One component of the program, called “Reaching Every Depressed Barangay (RED)” or “Reaching the Urban Poor (RUP),” aims to improve access to health services by “the urban poor, vulnerable groups and hidden slums,” using the World Health Organization (WHO) Urban Health Equity Assessment and Response Tool, known as HEART. Another



Women carrying children fall in line outside the Batasan Hills Super Health Center in Quezon City for their regular vaccination program (15 December 2020).

strategy is called Environmentally Sustainable and Healthy Urban Transport (ESHUT). The Urban Health System Development Program also identified social determinants of health in urban areas such as level of education, access to water and sanitation, housing, employment, and food production. The DOH Occupational Health Program targets the informal sector workers, specifically those in the transport sector, to promote healthy and safe working conditions and reduce the incidence of work-related diseases and injuries due to poor working environments. With the enactment in August 2018 of Republic Act No. 11058 or The Occupational Safety and Health Standards, which includes a section on Joint and Solidarity Liability (Section 22), workers in the informal

economy who are part of the supply chain of small, medium-sized, and large enterprises are covered by mandatory occupational safety and health measures. This law protects the health and safety of both formal and informal economy workers, including the urban poor.

ESHUT looks into means of improving the health of the urban population through policy, design, and practice of an urban transport system. This includes reducing air and noise pollution, limiting greenhouse gas emissions from motor vehicles, and designating bicycle lanes. In addition to ESHUT, there are already policies and strategies on transportation laid out in the National Transport Policy and its Implementing Rules and Regulations, which

promote health in urban areas through the following strategies: (i) accelerating green, low-carbon or electric-powered, resilient, and people-oriented transport systems that are inclusive and prioritize public health and well-being; and (ii) prioritizing people mobility over vehicle by including nonmotorized or active transportation (such as walking and cycling) in the design and implementation of transportation projects.

The Enhanced Partnership Against Hunger and Poverty (EPAHP) is a recently introduced national initiative to combat hunger and malnutrition.

The goal of the EPAHP Convergence Program framework is to help mitigate hunger, ensure food and nutrition security, and reduce poverty in urban and rural communities, including poor and vulnerable communities. The program is intended to contribute to the national government's efforts in addressing hunger and poverty through the convergence and synergy of essential services.¹¹⁰ It aims to link the food requirements of government feeding programs run by various agencies to service providers or suppliers who belong to poor CBOs.¹¹¹ In addition, Republic Act No. 11148 or the *Kalusugan at Nutrisyon ng Mag-Nanay Act*¹¹² aims to provide sustained proper nutrition and health interventions for children from the first day of the mother's pregnancy to their first 2 years (covering the first 1,000 days), a period that science recognizes as a critical period in child development.¹¹³ Poor nutrition is an underlying cause of vulnerability of the urban poor because of its impacts on health and productivity of households. Disasters and climate events that significantly impact agricultural production can further disrupt food supplies to urban areas or increase food prices and make healthy food less affordable for the urban poor.

The 4Ps provides the urban poor some access to essential health services. The design features of the program allow

enrolled families in both urban and rural areas access to basic health services, thereby helping reduce health inequalities. Health-related conditionalities for receiving cash grants include ensuring that children get regular health checkups and vaccinations and have their growth monitored. Pregnant women must receive prenatal care, give birth in a health facility attended to by health professional workers, and receive postpartum and postnatal care for themselves and their newborns. Parents or guardians are required to participate in monthly community-based Family Development Sessions (FDS) to learn about positive child discipline, disaster preparedness, and women's rights.¹¹⁴ There are also local health offices that are taking advantage of the FDS by conducting lectures on proper nutrition, family planning, and tuberculosis prevention and control. Qualified households receive a ₱750 health and nutrition grant per month for a maximum of 1 year. All beneficiaries of the 4Ps are automatically covered by PhilHealth's Sponsored Program, which covers diseases triggered or worsened by climate change. Under the 4Ps, DSWD facilitates the process of enhancing health practices and behavior among the urban poor through modules on food and nutrition, and sanitation. Pockets of small projects to improve water and sanitation services for the urban poor, including the 4Ps families, are also being implemented.

Challenges and Gaps

While there is solid evidence that the health of the urban poor is and will be shaped by climate change, evidence on the specific details of this in the Philippines needs to be strengthened. The IPCC's conclusions concerning the links between health and climate are particularly relevant for the urban poor: "The most effective vulnerability reduction measures for health in the near term are programs that implement and improve basic public health measures such as provision

of clean water and sanitation, secure essential health care including vaccination and child health services, increase capacity for disaster preparedness and response, and alleviate poverty” (endnote 95). However, empirical evidence about the links between extreme weather and health problems among the urban poor in the Philippines is not readily accessible, a situation compounded by the highly mobile nature of this group. Although the National Demographic and Health Survey disaggregates between urban and rural areas and by wealth quintiles, the data published in the final report do not provide insight into disparities in terms of health indicators between the urban poor and urban non-poor,¹¹⁵ and important information about the geographic location of the poor is also missing. Additional indicators on causes of morbidity and mortality are available (e.g., from DOH and from the PSA civil registry), but these are not used to better understand the linkages between health, disasters, and climate change. Advocacy seems to be wanting for the adoption of an integrative and multidisciplinary research agenda on climate change and health. There is a need to design an equity tool on urban poverty that considers industrial, commercial, and social determinants of health. While the current Urban Health Equity Assessment and Response Tool compares the performance of the rich and poor barangays, a tool that measures the inequity within barangays still needs to be developed.

Many of the urban poor in the Philippines continue to struggle with diseases associated with inadequate water and sanitation, and with infectious diseases associated with poor-quality living conditions. Climate change is likely to increase the prevalence of these diseases. While significant progress has been made in addressing water and sanitation provision (e.g., through the National Sewerage and Septage Management Program, meeting these needs for the urban poor is increasingly

critical in the context of climate change and the COVID-19 pandemic. It is estimated that about 3.3 million households or about 14.7 million Filipinos may not be able to comply with the recommended handwashing practices as a means to prevent COVID-19 infection, due either to the absence of a place for handwashing in the dwelling unit, or the lack of water and soap.¹¹⁶ In areas where these situations do not apply, handwashing can be discouraged by frequent water service interruptions, such as what happened in key service areas of Metro Manila from mid-March to April 2020.¹¹⁷ With disparities in access to safe water and sanitation, diarrhea is among the top five causes of morbidity among children in urban poor communities, and consistently in the top 10 leading causes of morbidity in the country.¹¹⁸ Evidence shows that diarrheal cases are sensitive to temperature variation, with higher temperature associated with relatively higher incidence.¹¹⁹ Diarrhea can aggravate or cause malnutrition. Another sanitation-related public health concern affecting children in urban and rural poor communities alike is soil-transmitted helminth infections, which are transmitted by eggs present in human feces contaminating the soil in areas where sanitation is poor.¹²⁰ These infections often result in subtle morbidities, such as anemia, impaired physical and cognitive development, and poor school performance.¹²¹

The burden from NCDs is also heavy among the urban poor, considering the underlying determinants, chronic nature, and debilitating complications.¹²² The urban poor’s vulnerability to NCDs can be attributed to a higher level of exposure to various risks, such as fast food advertising coupled with lack of access to dietary counseling, availability of unhealthy pre-cooked and unhealthy food sold in the streets, alcohol, tobacco, occupational hazards, stress, and injury. There is evidence that children who grow up

in lower socioeconomic backgrounds have a higher propensity to be afflicted with heart disease later in life.¹²³ The urban poor also lack access to open or green spaces and facilities where they can exercise and engage in wellness activities. Increased temperatures and extreme heat events also accelerate the development of harmful air pollutants that can impact the cardiovascular and respiratory systems of exposed urban residents. With aggravating factors such as poor-quality housing, lack of ventilation, and existing cardiovascular or respiratory conditions, extreme heat can lead to morbidity and mortality.¹²⁴ In addition, the COVID-19 pandemic and other major calamities can contribute to a range of mental disorders and can also trigger negative coping mechanisms.¹²⁵ Such disorders can reduce one's economic and social participation and weaken family resilience. The urban poor have less access to health services, which leaves their physical and mental vulnerabilities undiagnosed.

Particular support is needed to address the occupational safety and health (OSH) needs of the urban poor. Many work in conditions where they are exposed to climate-related threats (e.g., physical laborers working in high temperatures), and necessary protective measures need to be legislated and put into place. Enforcement of OSH standards is virtually nonexistent in the informal sector in urban areas and weak for those in formal but casual work, many of whom are poor and who are likely to be affected by climate change. While government initiatives have achieved specific OSH goals in the Philippines, success has been greater in large-scale industrial establishments, while small and medium-scale enterprises suffer from limited resources to invest in this area, and the informal sector is the most deprived in terms of access to OSH measures.¹²⁶ Many of the urban poor are engaged in income-generating activities in the informal sector (e.g., jeepney and tricycle drivers, street vendors) in which they are

unprotected from high temperatures, high humidity, and noise that can lead to both work-related illnesses and accidents. Without benefits that formal workers enjoy, such as social security and health insurance, many of the work-related illnesses and injuries suffered by casual laborers are not reported and therefore do not receive proper medical attention and compensation. These workers' disposable income is so low that maintaining their health is not prioritized; together with education, health expenses account for only 3.3% of the urban poor's total expenditure, compared to 7.9% among the non-poor, although this is partly because the poor avail of free health and education (endnote 37).

Urban food security, particularly affordability, is a critical element of nutrition and health. A recent study established baseline data on food and nutrition insecurities and vulnerability to climate hazards useful for designing emergency programs in affected barangays.¹²⁷ Through satellite imaging and social media data, the study was able to map the most vulnerable LGUs in Metro Manila by barangays through concentrations of informal settlements. The study also found that the food in markets and stores remains largely inaccessible due to poverty, economic conditions, and lack of livelihoods. Although family and friends help, it is insufficient for full access to available food. Food security for the urban poor is an outcome of all aspects of food production, storage, distribution, and consumption—all of which will be affected by climate change and especially by the growing frequency and severity of extreme weather events. Low and irregular incomes are the root cause of urban food insecurity; if these are affected by disasters and climate-related hazards, the urban poor are at heightened risk of malnutrition.¹²⁸ The availability of affordable nutritious food in the workplace will not only decrease the incidence of lifestyle-related diseases (e.g., hypertension, diabetes) but also

increase worker productivity. Social Weather Station survey results released on 27 September 2020 showed that families who experienced involuntary hunger or hunger due to lack of food reached a record 30.7%, equal to 7.6 million households. The hunger rate in Metro Manila rose to 28.2%, or an estimated 941,000 families, from 16.3% in July 2020, surpassing the previous record of 27.0% in December 2009.¹²⁹

Responding to COVID-19. While this is perhaps the most immediate policy area for responding to a disease outbreak, the COVID-19 pandemic demonstrates the potential of airborne viruses to create major harm in low-income settlements (where waterborne diseases have often been the most significant cause of illness and premature death).

What Can Be Done?

Pursue a coordinated and integrated effort among service agencies in responding to health-related climate impacts. While a range of initiatives exist to address specific diseases affecting the urban poor, building resilience will require a more holistic approach. The issues of better evidence on health and disease, water and sanitation, OSH, and food and nutrition are all interrelated in low-income urban neighborhoods. Collaboration among agencies is explicit in government plans and strategies on climate change, thus providing opportunities for the public sector to prevent, rather than react to, an increase in health impacts of climate change. Proper coordination of water supply and sanitation initiatives and programs to respond to both climate change and health issues is crucial. NEDA is leading initiatives to pursue the creation of an apex body that will oversee and coordinate policy and program implementation in this sector. Another positive example in this space is

DOH's membership in the National Disaster Risk Reduction and Management Council. As the Asian Development Bank notes, "A climate change adaptation strategy that focuses on preventing the projected health impacts of climate change is likely to be more effective in the short, medium, and long terms (with regard to both impacts and costs) than a strategy that is reactive" (endnote 103). Moreover, outcomes of the DOH Urban Health System Development Program can be studied to identify areas for improving health service delivery, especially in low-income urban communities where climate risk increases the burden of diseases and illnesses among the poor. Insights from the implementation of the program can inform other program areas (e.g., social protection and infrastructure planning) that influence the interaction of the social determinants of health.

Such a coordinated effort could include responses to the key issues raised above:

- Identifying key present and emerging health risks facing the urban poor, through integrated disease surveillance and response.
- Integrating these data with climate projections to generate likely future trends.
- Based on this evidence, identifying priority interventions that will respond to future health risks of the urban poor, particularly focusing on vulnerable groups (infants and young children, older persons, outdoor workers, and those with existing illness, disabilities, and comorbidities) and on links with OSH (particularly for informal sector workers).
- Ensuring that all physical infrastructure required to support the health of the urban poor is sufficiently resilient to climate and disaster shocks.

Updated national policies and guidelines on climate change adaptation and health must be widely disseminated to LGUs responsible for health service delivery. Adequate and clear advisories can help LGUs adopt the national policies and guidelines, which should also be packaged to be popular, easily understandable, and customized to local situations. Climate change adaptation and health initiatives can be incorporated into local investment plans for health since the latter translate national health goals into concrete actions with budgetary requirements at the local level.¹³⁰

Build on existing programs to support awareness of and access to health services.

An integrated approach to building the resilience of the urban poor in response to climate change can be supported through expanding existing programs to target the groups likely to be most affected by climate change-related health issues. With accessing health services as one of the conditions for the cash grant received by beneficiaries, the 4Ps has improved the health-seeking behavior among the poor.¹³¹ The same can be explored for those whose health conditions are exacerbated by climate change (e.g., older household members monitoring their blood pressure, adult workers with tuberculosis or respiratory diseases visiting the health center regularly). The FDS can also be venues for DOH, both at national and local levels, to disseminate information about its services for those with climate-sensitive diseases. The health effects of climate change can be included in the planned or ongoing updates of FDS modules, recognizing the differences between urban and rural areas. Indeed, there is already active participation of the 4Ps Parent Leaders and Assistant Parent Leaders in disseminating factual information, mitigating risks brought about by the occurrence of disasters, and promoting environmental protection. Immunization activities for children must also be coupled with giving health information for parents

to appreciate the value of safe water and sanitation to child survival, and protecting children from indoor air pollution, including secondhand smoke. The full implementation of the UHC Law, which is predominantly curative in scope, can also be phased and used as an incentive for urban poor households to organize themselves into clusters (*puroks*) for community-based health programs aimed at preventing disease and fostering resilience. The operationalization of the UHC Law and the subsequent establishment of health-care provider networks will contribute to these higher levels of awareness and access to health services.

Strengthen existing integrated disease surveillance and response system.

This is an important means of addressing the evidence gaps on the health needs of the urban poor and how these are linked with climate change. While DOH does monitor disasters, it does not include a fuller analysis of climate change impacts on health, particularly for the urban poor. Among the prospects identified by CCC to ensure health resilience to climate change is the development of an integrated disease surveillance and response system, which has climate information with early warning for climate-sensitive health risks as a key consideration.¹³² Some systems do exist, such as the Philippine Integrated Disease Surveillance and Response, and these could be strengthened rather than to create a new system. The system can be designed to capture data on climate-related diseases, housing characteristics, environment, ethnolinguistic attributes and sociocultural practices, and climatic parameters from select urban poor communities in different regions of the country. Its effectiveness in urban poor communities can be assessed to surface good practices and evidence-based lessons for improving the delivery of services aimed at addressing health risks due to climate change. The system must be supported with mechanisms for periodic

sharing of data, knowledge, and experiences among national and local health stakeholders. Particularly in light of COVID-19, there is also an explicit need to develop a national pandemic contingency plan or equivalent.

Provide new programs that deliver direct support for urban outdoor workers to address key OSH issues.

Outdoor workers are susceptible to heat stress, which can lead to short-term illness and longer-term disease. Many of these workers operate in the informal sector or are paid on a daily basis, so an inability to work also has a significant effect on livelihoods. Direct support for street vendors, street sweepers, and other outdoor workers can include assessing and improving, as necessary, the availability of drinking water (e.g., through public water fountains) and through the provision of accessible toilets (a particularly important issue for women) and handwashing facilities. In the formal sector, employers can be mandated to provide appropriate support (e.g., requiring breaks if the temperature exceeds a certain level, providing water and appropriate protective clothing).

Build responses that strengthen food security for the urban poor.

Adequate nutrition for the urban poor depends on the availability of affordable and healthy food. As climate change is likely to affect both the production (and price) of food, and potentially the quality of this food (e.g., through higher temperatures increasing spoilage), strengthening urban food systems is an important element of building the resilience of the urban poor.¹³³ This might include further developing work among EPAHP partners for anti-hunger interventions for food security in urban poor communities. While urban dwellers are not the direct beneficiaries of the Department of Agrarian Reform, it can work with its primary beneficiaries (agrarian reform beneficiaries, or ARBs) who produce basic commodities such as rice, vegetables, and meat

for urban dwellers. The Department of Agrarian Reform can serve as the linkage between the producer-ARBs and the organizations that will buy the commodities. It may also include ensuring that the potential of EPAHP to address hunger and malnutrition explicitly takes into account these issues among the urban poor.

Ensure COVID-19 responses address food security.

The pandemic has not only exacerbated poverty but also raised challenges in ensuring food security, especially among the urban poor. The imposition of community quarantine measures disrupted food supply chains and displaced informal sector workers, which has further affected their ability to meet their basic needs. While the government implemented strategic interventions to address the impact of the pandemic on food supply chains, it is essential that the urban poor be continuously provided with the necessary support measures to ensure their resilience amid the threats of food insecurity. This might include implementing urban farming initiatives at the local level, especially in view of the “Plant, Plant, Plant Program” of the Department of Agriculture. Similarly, LGUs can be involved in the promotion of urban agriculture to help facilitate continuous practice among communities. An urban agriculture strategy may be integrated and mainstreamed in local development and policy planning (i.e., in comprehensive land use plans and local climate change action plans) to ensure that appropriate funding and support is provided by the city or municipal council. Other policy measures that may be considered include organizing multisectoral teams to sustain urban agriculture initiatives, implementing capacity-building initiatives targeted toward enhancing community knowledge on urban farming technologies, and identifying possible financing schemes to sustain the efforts of LGUs and their partner organizations to promote urban agriculture.¹³⁴ The promotion of urban agriculture can also help to provide

communities with healthier food choices, as the imposition of lockdowns had led to poor families relying on unhealthy or nutritionally inadequate food packages. LGUs that harnessed their existing urban agriculture programs and

initiatives in responding to the impact of COVID-19 include Quezon City, Santa Rosa City in Laguna, and the Science City of Muñoz in Nueva Ecija.



Housing and Shelter

The urban poor in the Philippines often live in inadequate housing, which can be a significant driver of risk. This can be the case in both formal and informal settlements, although there are particular threats facing households in different settings (Table 5.1). Many settlements housing the urban poor are on land sites at high risk from flooding and landslides; most housing structures in these communities are of poor quality and lack basic services.¹³⁵ The result is that most low-income and informal settlements concentrate high levels of risk from infectious and parasitic diseases, accidental fires, extreme weather, and pollution. Access to affordable, adequate quality shelter is a significant challenge for the urban poor. Expenditure on

housing in urban settings (even in poor-quality housing) is often a substantial proportion of earnings, while inadequate housing exposes the urban poor to a range of climate- and disaster-related shocks and stresses: both because of the quality of structures and their location in hazard-prone areas.

There is a substantial unmet housing need in the Philippines. A review of housing demand for 2016–2030 by the Subdivision and Housing Developers Association of the Philippines, indicated that 1,134,986 households would be unable to afford housing; 1,369,181 would require socialized housing, and 2,509,718 would require economic housing.¹³⁶

Table 5.1: Shelter Provision and Risk

Type of Housing	Specific Risks	Shared Risks
Low-quality housing in formal settlements	Damage from extreme weather events, including floods and typhoons	Public health risks: illness due to poor-quality shelter, and inadequate ventilation and sanitation Damage to homes from climate-related and other disasters (due to low quality of shelter) Risk of injury and death from poor-quality housing and limited neighborhood infrastructure
Housing in informal settlements	Particularly severe challenges from lack of infrastructure Risks accentuated through location on marginal land (e.g., riverbanks, near coast)	
Government resettlement sites (previously informal settlers)	Disrupted livelihoods and socioeconomic services	

Source: Asian Development Bank.

Ensuring the urban poor have access to adequate and resilient housing will require multiple coordinated actions. It will require new policies and frameworks to shape the overall housing sector, new standards and regulations to ensure that structures are affordable and resilient, new financing mechanisms to expand access to lower-income groups, and new subsidies to facilitate expanded involvement of the private sector in housing supply. The analysis below speaks to several of these areas, but a detailed study on building resilience in the housing sector for the urban poor would require more engagement with them. These actions will need to take place both immediately in response to the COVID-19 pandemic, but also in the longer term to support the development of new urban growth areas and managing congestion in Metro Manila and other highly urbanized areas.

What Is in Place?

A number of government programs and services strengthen the resilience of slum dwellers and informal settlers occupying private and public lands by providing them secure tenure and better housing. While many informal settler families (ISFs) are not income-poor, their living conditions expose them to many risks, including the loss of housing and sources of livelihood when they are subjected to eviction due to climate hazards, infrastructure projects, or court orders. There are also those who are owners or who rent dwellings with legal tenure, including recipients of government-provided housing (e.g., old tenement housing, Community Mortgage Program [CMP], resettlement, former government lands subjected to presidential land proclamations).

The government created the National Urban Development and Housing Framework. This framework calls for the implementation of an integrated housing strategy that requires the collaboration of

shelter, economic, and social welfare agencies beyond their current or traditional mandates and promotes the development of climate-resilient, affordable housing. This is to be achieved by adopting appropriate housing standards or building codes, technologies, and innovations that incorporate conditions for resilience and resource efficiency.

The Department of Human Settlements and Urban Development (DHSUD) is the primary national government agency charged with managing housing, human settlements, and urban development.

Established in February 2019, DHSUD is expected to have a significant role in building the resilience of the urban poor. Its creation is premised on a paradigm shift from housing production to management of housing, human settlements and urban development. The new department is mandated with formulating policies and undertaking programs and projects anchored on the Philippines' New Urban Agenda and National Urban Development and Housing Framework.¹³⁷ Building the resilience of the urban poor by integrating disaster risk reduction and climate change in land use and urban planning, urban environment, and infrastructure improvements serves as its major strategies.¹³⁸ DHSUD is now a member of the NEDA Board and its National Land Use Committee, CCC, and NDRRMC, giving it access to mechanisms for improved coordination and integration of its housing programs with institutionalized resilience-building programs of the national government.

Building safe, resilient, and sustainable communities is a government priority.

The Updated Philippine Development Plan (PDP) 2017–2022 chapter on “Building Safe, Resilient, and Sustainable Communities” focuses on human settlements development in line with the new urban agenda of developing integrated neighborhoods and sustainable

communities, and the urgency to address the increasing need for adequate housing in well-planned communities given the experiences during the height of COVID-19 pandemic. To achieve this goal, strategies will include (i) integrating health goals in the design of human settlements, (ii) accelerating housing production that incorporates hazards and health standards, and (iii) adopting alternative housing solutions for low-income markets (endnote 58).

Local governments formulate shelter plans. The former Housing and Urban Development Coordinating Council (HUDCC) enabled LGUs in climate and disaster risk reduction-informed local shelter planning by providing training for the formulation of local shelter plans and piloting their preparation in select cities. This role is being continued by the newly established DHSUD, which consolidated the functions of the former HUDCC and the Housing and Land Use Regulatory Board, enabling better policy and program coordination, reform advocacy, and implementation, especially at the Cabinet level. For their part, LGUs prepare local shelter plans, convene local shelter boards, and implement housing and relocation projects in safe sites for ISFs and disaster-affected poor families. Development agencies (e.g., UN-Habitat and the United Nations Development Programme) and local and international NGOs (e.g., *Gawad Kalinga*, Habitat for Humanity) have also been assisting LGUs in the provision of resilient housing for ISFs or disaster-affected urban poor families.

Local governments provide resettlement programs. A number of local governments have programs that provide secure tenure and housing to ISFs: Quezon City, Pasig City, Valenzuela City, Muntinlupa City, and Cagayan de Oro, among others. Government resettlement programs, including those implemented for post-disaster rehabilitation such as in

Cagayan de Oro (post-Washi) and Tacloban (post-Haiyan), have generally favored off-city resettlement because of land suitability and cost. Local governments outside Metro Manila, such as Cagayan de Oro, Davao City, and Iloilo City, have demonstrated a capacity to provide in-city resettlement for ISFs living in danger areas. Access to affordable and idle land has been a key factor, supported by the commitment of the LGUs. Cagayan de Oro, for instance, has devoted resources particularly for land banking purposes to meet the housing requirements of the informal settlers identified in its 2013 local shelter plan. Between 2016 and 2018, the city acquired 80 hectares of land within the city to be devoted to the relocation of ISFs. Local governments in Metro Manila such as Valenzuela City were faced with issues of lack of affordable land, as housing provision was based on alternative and innovative in-city urban development, and not on the function of tenure and homeownership. Valenzuela City's Disiplina Village stands out in terms of providing safe and livable settlements for the urban poor. The city maximized partnerships with the National Housing Authority (NHA) for the construction of buildings for 3,186 families and enjoined the private sector for community facilities such as a transport terminal, public market, schools, and parks and playgrounds.¹³⁹ One of the clusters under the Manila Bay Rehabilitation Program is the Social Preparation and Resettlement or the Key Result Area 3, which aims to relocate all ISFs residing along easement areas in rivers, waterways, *esteros*, lake, and bay coastlines within the Manila Bay Region. New settlements will be provided for the families occupying danger zones in accordance with various laws.

The national government's Oplan Lumikas para Iwas Kalamidad at Sakit (Oplan LIKAS) resettles ISFs from danger areas. At the local government or city level, LGUs are partners of national government agencies in implementing housing projects. Established in 2011, *Oplan LIKAS* operated in coordination with LGUs with the aim of relocating 120,000 ISFs from danger areas along

waterways in Metro Manila. Aside from a 2008 Supreme Court mandamus, the establishment of *Oplan LIKAS* is rooted in the advocacy of civil society organizations (CSOs), including urban poor groups, to increase the funding for social housing and in-city relocation.¹⁴⁰ After the massive floods experienced in Metro Manila during Typhoon Ketsana (known locally as Ondoy), DILG implemented *Oplan LIKAS* in coordination with LGUs for the resettlement of ISFs living along waterways in Metro Manila and housing was provided by NHA to approximately 60,000 ISFs in various in-city and off-city resettlement sites.

The Social Housing Finance Corporation (SHFC) provides collective housing finance at the community level. This financing is for urban poor households organized into community associations for land acquisition and housing construction or improvement through its CMP. The majority of its assisted CMP projects are on-site and all are in-city. More recently, SHFC has been working closely with LGUs to systematize the targeting of communities assisted by its programs, taking advantage of the fact that LGU local shelter plans and local climate change action plans identify the ISFs and communities most vulnerable to climate impacts. In its high density housing projects that were implemented in conjunction with *Oplan LIKAS*, the agency developed innovative tenure arrangements such as making use of usufruct contracts on the land to bring down the total housing cost per beneficiary.

NHA provides government-subsidized housing at the household level. As one of the agencies under DHSUD, NHA is responsible for a range of actions at both the household and community levels, including providing housing units to qualified poor households affected by government infrastructure projects or disasters, or relocated from danger areas; creating a standard for resilient housing and evacuation centers; and ensuring the provision of community facilities and access to utilities, and social and economic opportunities. It closely coordinates with other

government agencies such as the Department of Public Works and Highways and LGUs in performing these mandates. It has an accreditation program on innovative housing design and technology for resilient housing. Aside from constructing housing units for relocated ISFs, NHA also facilitates the formation of community organizations in its in-city and off-city projects. The Community Initiative Approach to resettlement enables families to join site inspections so they can see the location and progress of their potential housing units. Moreover, this approach recognizes civil society closely assisting communities and their involvement in housing programs as partners in each step of the resettlement process. NHA provides training in disaster risk reduction (e.g., identifying hazard-prone areas, setting up early warning systems), environmental protection (e.g., solid waste management), organizational development (e.g., strategic planning, leadership, orientation on the Magna Carta for Homeowners and Homeowners' Associations), and estate management. These interventions aim to strengthen the people's organizational capacities to pursue resilience-building initiatives, while community-level groups also have the potential to share hazard warnings and other relevant information.

Other programs targeted at the community and household levels include the Presidential Proclamation of Public Lands (alienable and disposable lands), which made available government-owned lands to ISFs by regularizing the tenure of occupants of these lands.

CSOs support the urban poor in accessing housing and shelter. Various organizations are active in assisting ISF communities in developing alternative housing solutions such as on-site or in-city housing instead of distant resettlement through people's planning and/or savings and community-managed funds for improved and secure housing. Moreover, NGO networks and people's organizations have integrated community-based disaster risk reduction and

management, including response and relief mechanisms in their capacity-building programs in ISF communities. They also help ISFs to access government housing and housing finance programs. Microfinance institutions offer housing loans to ISFs for housing construction and improvement and for small businesses.

Challenges and Gaps

During the past decade, many highly destructive typhoons have hit large numbers of the urban poor in coastal and highly urbanized cities. The need for resilient housing in safe locations has become even more pressing for the urban poor, as well as local governments and specialized state agencies tasked with providing subsidized shelter assistance to poor and vulnerable families. Some elements that government programs providing resilient housing have been able to address to some degree include access to affordable land, safe location linked to infrastructure and services (e.g., education and health facilities), and access to housing finance. However, the interventions need to be scaled up to meet existing and future needs of ISFs who are among the most vulnerable segment of the urban poor. This also includes meeting the needs of the homeless population—both immediate health and shelter needs, and longer-term provision of appropriate housing.

New institutional setup presents both challenges and opportunities for implementing initiatives toward building resilience of the urban poor. DHSUD, the newly created department, will need to manage the integration of the housing provision, urban development, and regulatory functions into a seamless system. The Housing and Land Use Regulatory Board (HLURB) used to handle land use plans for all local government units, representing the foundation of urban development as well as housing. HUDCC and the shelter agencies had mostly focused on the provision of social housing. The new

DHSUD faces a huge housing need, estimated at 6.5 million units for all income groups, which is anchored on LGUs' climate risk-informed land use plans. By elevating land use planning to a department, the government provides a firmer anchor for building resilient urban areas, together with the recently revised Green Building Code. The combined focus on both housing and urban development creates significant potential for treating these related issues—both of which are critical for the urban poor—in an integrated way.

Despite the large number of ISFs, granular, comprehensive data on their housing needs are absent. Eviction poses a threat to livelihoods and access to services for poor and near-poor ISFs living in danger areas, privately owned lands, and government infrastructure project sites. This threat is considered to be far more serious than the risk from disasters triggered by natural hazards. The government's pursuit of growth-inducing strategies such as the "Build, Build, Build" Program is expected to result in the resettlement of large numbers of ISFs. Although resettlement is provided in the case of infrastructure-induced displacement, resettlement sites are usually off-city with limited opportunities for jobs and livelihoods, thus increasing the vulnerability of already poor households. While the numbers are telling and there is sufficient literature characterizing the urban poor, gathering comprehensive data in one office to pinpoint, quantify, and segment the various needs of the urban poor toward resilience building encounters limitations. There is a dearth of consolidated information with regard to particular housing and socioeconomic conditions, which can better help the government design, track, and monitor targeted programs. More specific and granular housing indicators such as size and floor area, inventory of rental units, rates, cost of transportation (including modalities), access, and housing quality may be obtained through DSWD's *Listahanan*, but these may not necessarily be translated and consolidated with the key shelter agencies.¹⁴¹ Further, indicators



Members of a people's organization who had availed of a multi-story housing in Pasig City through a people's planning process with the assistance of National Housing Authority (photo by Community Organizers Multiversity).

are not obtained and analyzed at the local level, such as the Socio-Sectoral Analysis of LGUs for their comprehensive land use plans and the CBMS. A dedicated and detailed housing survey can include a mapping of the urban poor and their housing characteristics and needs. Similarly, where data exist for “danger areas” (as is the case for the SHFC housing program for ISFs in Metro Manila), they do not specifically identify which project beneficiaries are currently living in waterways. Data may also be conflicting, as is the case with the varying numbers from NHA and DENR pertaining to ISFs affected by the Supreme Court mandamus to clear the Manila Bay area.

Availability of land is lacking. In highly urbanized cities (HUCs), national and local government capacity to deliver on-site or in-city housing solutions is limited by the scarcity of government-owned land or affordable land to be purchased from private owners. Addressing these land constraints will require multiple policy reforms.¹⁴² In Metro Manila, NHA is constrained by its need to rely on local governments to provide land that can be used for its in-city low-rise housing projects. NGOs, corporate foundations (e.g., SM Cares), and development organizations

(e.g., United Nations Development Programme, UN-Habitat) have been able to provide in-city housing assistance to disaster-affected families in non-HUCs, but these are of very limited scale. The challenge is to release land for use as in-city housing sites and to provide subsidies to make them affordable to poor households. Otherwise, the available alternatives are distant off-city resettlement projects, which render the relocated families economically vulnerable due to the loss of livelihood and access to needed services. In addition, although land is available outside Metro Manila, most local government units are opposed to using their locality as relocation sites due to the additional public expenditure on social services.¹⁴³ Land banking or keeping an inventory of land will be helpful in addressing this concern.

Affordability is critical to providing resilient housing for the urban poor. The urban poor will only be able to afford resilient housing in safe locations if prices are lowered, income increased (see section on livelihoods, p. 56), or subsidies provided. Without significant increases in household income, government subsidies will be required if most of the low-income groups are to benefit from current housing programs.

These subsidies can take the form of targeted financing (non-regressive), land that is reasonably priced and accessible to places of employment, provision of transportation and other service infrastructure, affordable rental housing programs, and voucher-type direct subsidies for those who qualify under homeownership, rental, or other program modes. Above all, these must be handled in a transparent and accountable manner.¹⁴⁴ SHFC expressed the need for assistance in designing a subsidy scheme for the poorest households.

Enforcement of development control regulations is also lacking. Another challenge is to enforce regulations designed to reduce risks and provide resilient housing to the urban poor (e.g., no-build zones, site suitability criteria, compliance with environmental compliance certificate prescriptions) due to political expediency, as well as weak regulatory and monitoring capacity. This issue has become particularly critical in the case of off-city resettlement sites, which have recently experienced heavy flooding caused by typhoons, later found to be due to the sites' location in catchment basins. Beneficiaries of government housing projects also have little capacity to undertake repair and maintenance of their housing units. However, these regulations must themselves take into account the affordability issues identified earlier to ensure that an appropriate level of quality is maintained at a cost that can be afforded by the urban poor. What is required are responsive building codes, which balance resilience standards with cost and affordability and standards that would also respond to heat stress—and not only to strong winds, flooding, or earthquakes.

Providing secure tenure relies heavily on homeownership as an approach. The government's heavy reliance on providing homeownership to address the urban poor's access to affordable housing and vulnerability to climate-related hazards has given rise to challenges of scale and sustainability.

High costs of in-city land, lack of available land, and transaction costs are among the concerns when implementing in-city resettlement. At the same time, this reflects strong demand for land and homeownership by the urban poor as their own preferred response to achieving decent housing. As a result, flagship programs such as *Oplan LIKAS* have resorted to off-city resettlement accounting for about 75% of resettlement vis-à-vis in-city or near-city resettlement due to the lack of available land and rising land prices in urban areas.¹⁴⁵ Off-city resettlement programs yielded unsatisfactory outcomes in terms of quality of life of many resettled ISFs through increased costs of transportation to work, school, and health facilities. Some families reported leaving relocation sites to work in the cities during weekdays or returning to cities altogether to rent informal dwellings, turning resettlement sites into ghost towns or bedroom sites. This is consistent with the findings of an impact assessment of the National Shelter Program, which estimated that about 31% of randomly selected off-city relocated households were temporarily out of their closed units and visiting the houses during weekends.¹⁴⁶ Apart from homeownership, other modalities of providing secure tenure are needed.

The urban poor face increased exposure to COVID-19 and climate-induced and economic shocks and stresses. The “Stay Home” pandemic response immensely affected the urban poor due to lack of adequate and safe housing and exposed their deprivations. Physical distancing inside densely packed dwellings became impractical and infeasible. Lockdown measures meant prohibitions and arrests for those going outside, which prevented the urban poor from seeking refuge from their makeshift, dilapidated, uncomfortable dwellings with lack of ventilation, sanitation, and food. Huge urban areas such as Metro Manila and Cebu City recorded COVID-19 clusters and community transmission in the slum areas. Amid the pandemic, calamities from natural and human-made hazards devastated urban poor areas. Shortages of housing units and temporary

shelters have become a problem as many facilities are also being used as quarantine and isolation facilities for COVID-19 patients. Loss of income and jobs have made it difficult for the urban poor to meet housing payments and obligations, leading to displacement from their dwellings. Informal arrangements and undocumented housing and rental arrangements make the urban poor more vulnerable to displacement. The issue was compounded by demolitions conducted even during the pandemic. Grappling with disaster preparedness from these complex disasters is likely to drain local governments' capacities and resources amid the COVID-19 pandemic, and the national government should also be prepared to provide support to these communities.

Housing considerations need to be incorporated in the response to COVID-19.

Congested housing, with people constantly in close physical contact, makes it impossible to maintain adequate physical distancing to reduce the spread of disease. The COVID-19 pandemic has emphasized the importance of decent quality housing and urban development services such as water and sanitation in building the resilience of the urban poor, as well as better planning of the size and location of settlements.

What Can Be Done?

Use the institutional framework to support housing for the urban poor as the basis for building resilience. Perhaps most importantly, a range of interventions can also support the new institutional setup with DHSUD to undertake climate risk-informed planning and policy making. DHSUD can be supported with capacity-building interventions to provide more analytical, evidence-based rigor into its planning and policies, which can then be cascaded to the LGUs through planning manuals and training programs. The DHSUD needs support in its housing and urban development mandates, especially since they are broader than just assisting ISFs and cover entire settlements—both urban

and rural. As indicated in the law and DHSUD's implementing rules and regulations, areas of support can include priorities such as the New Urban Agenda, implementation of National Urban Development and Housing Framework, and the National Informal Settlements Upgrading Strategy (NISUS).

Integrate resilient housing into existing policy frameworks and programs.

The National Resettlement Policy Framework is an important policy lever and entry point for systematically integrating resilience-building components and approaches into existing resettlement processes. DHSUD may require policy and program design support to translate this policy instrument into actual standards, processes, and enforcement mechanisms to make existing resettlement processes inclusive and to explicitly address the needs of the urban poor facing climate risk. This mainstreaming could be supported through the crafting of a national resilient housing framework for the urban poor. Aside from setting standards for resilient and affordable housing, this framework could support policies toward the harmonization of procedures and requirements of existing resettlement and social housing programs, such as those provided by NHA and SHFC, with the people's planning process. This allows for a more holistic approach for building the resilience of urban poor families who are subjected to eviction or resettlement due to climate risk or infrastructure projects by addressing livelihood, health, gender, and climate issues in an integrated fashion. However, existing housing programs and policies often cannot accommodate the community organizing process involved in the people's planning approach due to time and cost reasons. There is thus an opportunity for technical assistance to be provided to housing agencies as well as NGOs and community organizations in harmonizing people's planning processes with the procedures and policies of housing programs directed at the urban poor, as well as integrating climate information and vulnerability assessments into these.

Include health standards, social protection, financial inclusion, and livelihood in the national framework for resilient housing and settlements.

Resilient housing should not be just structural and limited to housing provision post-disaster or recovery but a disaster prevention and mitigation strategy. With the COVID-19 pandemic, it is timely to jump-start discussions of resilient housing to be pursued as part of resilience-building approaches among urban poor communities related to quality of life, social protection, livelihood and health, hygiene, and sanitation. Government data on a community vulnerability assessment tool that was rolled out by the Inter-Agency Task Force on Emerging Infectious Diseases can be a starting point for looking at the physical and demographic characteristics of urban poor settlements. Since the government identified priority social protection programs in its COVID-19 Forward Planning Report, it is necessary to explore the inclusion of an urban poor registry or database in the system. The EPAHP Convergence Program approach may be adopted to implement this action plan, which involves all agencies included in providing the needs of a community (housing, basic utilities, livelihood, health, education, peace and order, transportation, etc.). Relevant agencies should explore options to increase access to banks, credit, and aid delivery mechanisms among target urban poor families for social protection and housing programs. The framework could also explore partnership with DTI for sustainable livelihood programs.

Support the needs of ISFs by operationalizing the NISUS, particularly at the LGU level.

Aiming for scale, the NISUS envisions integrating ISF housing into citywide development processes that include climate change adaptation and disaster risk reduction and management, with each city preparing a strategic plan that identifies infrastructure requirements and urban renewal areas, including upgrading of informal settlements. It thus focuses on strengthening local governments' leadership and coordinating roles in

the delivery of housing services. It also proposes expanding housing microfinance and community finance, institutionalizing income-based targeted subsidies, and improving staff and organizational capacity at local and national levels. With its enhanced powers and mandate, DHSUD will be able to exercise a leading role in operationalizing the NISUS through programs and projects to be implemented by housing agencies in coordination with local governments. DHSUD's strengthened mandate also gives it the power to implement the NISUS strategies for improved sector governance, among them, improving the capacity of LGUs as the lead agencies for urban renewal and ISF housing; setting up, operationalizing, and building capacity for appropriate data collection, mapping, knowledge management, and monitoring systems; and building the capacity of people's or community-based organizations and homeowners' associations to engage in ISF housing. This support can also be provided through legislative protection for ISFs in times of disasters—the Presidential Commission for the Urban Poor (PCUP) has proposed a moratorium on impending eviction and demolition activities during times of national crisis. It will require a centralized database system with regard to maintaining and monitoring the latest and updated number of ISFs.¹⁴⁷ Pursuing uniform data on the number and location of ISFs could drive efficient formulation and implementation of strategies to address the issues that this group faces.

Ensure that resettlement programs meet the needs of the urban poor, including increasing their resilience.

A stronger national government commitment and institutional capacity to improve the process and effectiveness of resettlement programs as embodied in the National Resettlement Policy Framework could be supported. For example, higher priority given to in-city resettlement would require investments in areas such as land banking or land acquisition by LGUs, and increased budgetary support for social housing programs that support community-driven development processes

such as CMP, among others. DHSUD can be supported to address the resettlement needs of urban poor families that face climate risk as a priority. Depending on the location of resettlement sites, the access of the urban poor to livelihood and basic services could improve (in-city) or deteriorate (off-city), resulting in increased or reduced resilience to disasters. As mentioned, government resettlement programs, including those implemented for post-disaster rehabilitation, have generally favored off-city resettlement because of cost and land suitability. While this may reduce certain risks, it must not come at the expense of social support mechanisms (through family and community connections) or livelihood opportunities. Due diligence must also be exerted in ensuring that the location of planned resettlement sites comply with safety and environmental regulations. Housing and community infrastructure standards would need to reflect the higher technical requirements of resilient buildings. With the COVID-19 pandemic, DHSUD can be supported to revisit and review resettlement standards to integrate public health and disaster risk reduction. Technical expertise can be sourced from NGOs and the academe as well as professional organizations and planning groups.

Reference international examples for insights on how resilient housing can be developed for the urban poor. City governments have improved access to better and more resilient housing by increasing the supply and reducing the cost of the key components, including land and permits, building, materials, connection to infrastructure (water, sanitation, drainage, and electricity), and services. National governments have developed policies or programs to reduce the cost of land with legal tenure, encourage firms to build cheaper “formal” housing, and encourage banks to develop affordable loan programs. For most informal settlements, the cheapest and most effective way to build resilience to climate change impacts is to support residents and their community organizations to work with local governments to implement “upgrading” programs.

This has become commonplace in some regions; in much of Latin America, upgrading is regarded as a conventional part of local government policy.¹⁴⁸ Comprehensive community-led upgrading, for example led by organizations including CODI (in Thailand) and SDI affiliates (in a range of countries), can form a strong basis for assessing current risks and anticipating future risks.¹⁴⁹ Upgrading while retaining high levels of density is also significant in ensuring residents are able to access livelihoods and social networks. Examples of plans that do this are present in Karachi, Pakistan, where street-level activities and local amenities, as well as multistory housing, are supported.¹⁵⁰ Low-cost housing can also be designed in ways that specifically take local climate hazards into account. For example, projects in Viet Nam have designed and built houses that are more resilient to storms; projects in Pakistan have adapted structures to manage high levels of heat; and houses in India have been made more flood resilient.¹⁵¹

Offer affordable ways for urban poor families to ensure their homes and neighborhoods are more resilient to disasters and climate change.

Targeted interventions for urban poor households could be in the following areas: (i) climate-proofing their housing to make sure it can withstand various climate hazards such as typhoons, storms, floods, and heat; (ii) improving or providing support basic infrastructure for water supply and sanitation, drainage, roads, and solid waste management; (iii) providing livelihoods to ensure they are not exposed to climate change impacts at work or risk falling into poverty due to a climate-related shock or stressor; (iv) reducing their exposure to health-related risks; and (v) increasing their general awareness of the risks posed by climate change to their environment, food supply, and livelihoods so they can plan ahead (e.g., with savings, insurance, health measures). NHA’s innovative housing design and technology includes standards for resettlement housing designed to withstand certain wind speeds during typhoons. Given increasing demand for in-city housing and scarcity of land, the NHA Housing

Technology and Technical Research Department also expressed the need for a new building code for low-rise resilient housing, for which technical assistance and ongoing funds for maintenance could be provided.

Apply community upgrading, which is necessary to prevent impending threats of other diseases spreading among urban poor areas and, more importantly, to mitigate climate and disaster risk.

There are a number of possible ways to introduce change and incentives to upgrade settlements. First, community upgrading will be easier with urban poor families in formal settlements. The government could start revisiting previously awarded resettlement areas, especially in-city areas. Examples of such settlements are the National Government Center Housing Project, project sites of CMP, High-Density Programs by LGUs and SHFC, and in-city NHA housing. Support should be solicited from homeowners' associations in these areas to enforce community standards in terms of setbacks, easements, ventilation, sanitation, and solid waste management. Home improvement programs for prospective owners who would like to climate-proof their housing to withstand climate hazards or for upgrading to low-income rental facilities can be provided with seed funding or low-interest loans. In this way, communities have additional sources of livelihood and income. This modality can be explored to develop these areas according to their highest and best use. The government does not have to bear the investments needed for community upgrading but will play a critical role in enforcement and planning. Second, for informal settlements in public land, DHSUD can develop mixed-use and mixed-income housing through public-private partnerships. Such developments can help resolve increasing in-city land prices for socialized housing, and also expand opportunities for jobs and other services for the urban poor.

Explore alternative and innovative housing finance modalities such as microfinance

for building resilience. A range of different housing finance options exist internationally (see Table 5.2). A promising alternative and innovative housing finance modality that DHSUD could look at is housing microfinance, which has grown steadily in the country. NGOs serve as the leading microfinance institutions and have also been instrumental in resilience building by way of building capacity and hand-holding for many communities. Access to these types of financing can better help the poor in making their houses more climate resilient and can also help the government prevent the seemingly vicious cycle of relief assistance for damaged houses after every disaster. Considerable progress has been made in developing microfinance products in the Philippines and demonstrating their viability. Building on this experience, opportunities exist for expanding their reach particularly to households and communities that are vulnerable to climate risk. This can be done by addressing policy and market barriers to scaling up. Among these are insufficient knowledge and institutional capacity of microfinance institutions that want to engage in housing microfinance, lack of capital, increased transaction costs from shifting from group to individual lending, need for providing housing support services to clients, limited paying capacity of target clients, limited available residential land, and the protracted and costly process of obtaining certificates of land ownership. Some strategies for scaling up green and inclusive housing microfinance in the Philippines include expanding access of ISFs to housing microfinance products and services, developing public-private partnership arrangements to accelerate the delivery of these services to ISFs, and strengthening sector capacity for green and inclusive housing microfinance policy reforms and program planning and implementation.¹⁵² Appropriate international experiences can be incorporated and adapted to suit the Philippines context.

Target direct subsidies for the most vulnerable.

To address the heavy reliance on providing homeownership to address the urban poor's

Table 5.2: Financing Models to Support Resilient Housing

Characteristics	Traditional Mortgages	Microenterprise Loans	Housing Microfinance
Purpose	Purchase home	Entrepreneurship	Home improvement incremental housing
Target borrower	Middle- to high-income salaried	Low-income self-employed	Low-income self-employed
Impact for borrower	Asset building (productive only when linked to livelihood)	Income generation	Asset building (productive only when linked to livelihood out of home)
Loan term	Long term (> 5 years)	3–12 months	6–36 months
Loan amount	Large amount	Small amount	Small to medium amount
Collateral	Land and structure	Income from business venture	Guarantor
Interest rate	Less than microenterprise and housing microfinance	Equal to higher than housing microcredit	Equal or lower than microenterprise
Scale	Global, large scale	Regional, limited scale	Regional, very limited

Source: Habitat for Humanity International. 2015. *Handbook of Housing Microfinance Product Development*.

access to affordable housing and vulnerability to climate-related hazards, the government should shift toward alternative modalities of housing provision apart from resettlement and subsidized housing loans at below-market prices. One of the strategies of the Updated PDP 2017–2022 in building safe, resilient, and sustainable communities is to implement alternative and innovative solutions for low-income and vulnerable sectors, such as developing direct housing subsidies through housing vouchers, public rental housing, housing microfinance models, and Islamic financing schemes. On-budget subsidies or voucher-type direct subsidies for qualified low-income ISFs can be provided to enable housing choice. Given the new normal arising from the COVID-19 pandemic, direct subsidies can help ISFs and urban poor families to move and choose to transfer to better

neighborhoods, allowing them to comply with physical distancing, reside in areas nearer their jobs to minimize long commutes, and access basic services such as water and sanitation. Given budget considerations of the government, rental subsidies can serve as interim, transitional term-based solutions to build the urban poor's capacity to absorb shocks and stresses from the pandemic and from disasters triggered by natural hazards. Direct targeted subsidies can also be formulated for homeownership-based programs such as a housing down payment to help transition to a formal and secure housing. Another option is to explore direct targeted subsidies for the well-being of urban poor families, which they can use for sustainable livelihood needs and basic needs such as food, shelter, education, and health.



Community-Driven Development

Community-driven development (CDD) has the potential to provide immediate and transformative solutions to reduce the vulnerability of the urban poor to climate change. CDD is an approach that gives community groups control over planning decisions and investment resources for local development. The multidimensional nature of urban poverty in the Philippines points to the need for providing access to basic services, community infrastructure, housing, livelihood, finance, training and capacity building, and other opportunities that urban poor communities critically need to uplift their plight and reduce their vulnerability to the adverse impacts of climate change. A key element of CDD is the provision of resources, usually in block grants, directly to communities for social preparation, community planning, community-managed implementation of development projects, formation of a CBO, and community-based monitoring.¹⁵³ It has proven to be an effective strategy in reducing disaster risk as well as restoring basic services and rebuilding communities after a disaster.¹⁵⁴ Although CDD in the Philippines has predominantly been focused on rural areas, replicating the best practices and applying 2 decades' worth of lessons is believed to contribute to inclusive and resilient development in urban areas. Well-documented impacts of CDD also include the generation of jobs or additional sources of income for community members, women's empowerment, and improved social cohesion.

What Is in Place?

The Kapit-Bisig Laban sa Kahirapan-Comprehensive and Integrated Delivery of Social Services (KALAHI-CIDSS) – National Community-Driven Development Program is the

flagship CDD program of the government. DSWD started the implementation of the program in 2003.¹⁵⁵ In 2013, the program used CDD as a mechanism for post-disaster rehabilitation in municipalities hit by Typhoon Haiyan (known locally as Yolanda) by allowing communities to plan, design, implement, and monitor subprojects that they consider priority. At the end of December 2019, NCDDP had covered 17,949 barangays in 885 municipalities, reaching approximately 7.7 million beneficiaries. The program includes, among others, features that support resilience-building for communities. House Bill No. 4407, known as the Community Driven Development Institutionalization Bill, was filed to provide an enabling policy, national strategy, and mechanism for empowering poor and marginalized communities in the local development process.¹⁵⁶

KALAHI-CIDSS integrated the use of hazard maps and risk assessment data in community planning. The program adopted participatory geographic information system, or PGIS, in its social preparation process and introduced the use of hazard maps in participatory situational analysis and development planning exercises. KALAHI-CIDSS also adopted the use of community risk assessment tools to help communities understand the potential impact of natural hazards and climate change to local development and people's lives. It has been working on mainstreaming and systematically integrating climate and disaster resilience during social preparation of beneficiary communities. While these design enhancements have already been adopted, implementation was limited to a small portion of covered municipalities. KALAHI-CIDSS's strength lies in its inclusive nature whereby participation of the poor and marginalized sectors leads


to better understanding of complex risk issues as well as formulation of optimal risk reduction strategies.¹⁵⁷

Community infrastructure projects funded through CDD follow climate-resilient design standards. Subprojects include basic access to infrastructure, basic social services, environmental protection and conservation, and economic support and service facilities. Construction is guided by infrastructure design standards of the government and involves labor supply from communities, which augments incomes of residents, including women. Subprojects are subject to due diligence to ensure they are not located in unsafe or danger zones.

Community subprojects included environmental subprojects related to resilience building. KALAH-CIDSS has an open menu of subprojects, which allowed the

prioritization and financing of small-scale risk mitigation infrastructure facilities such as flood and river controls, slope protection works, erosion control, and seawalls. As of December 2019, these 4,856 environmental protection and conservation subprojects comprised 10% of community subprojects funded through KALAH-CIDSS and directly benefited 1.21 million households.

The Urban CDD Pilot of KALAH-CIDSS offered lessons for developing an urban CDD approach to build disaster and climate resilience. In 2013, through a grant from Japan Social Development Fund-Livelihood Opportunities for Vulnerable Communities, DSWD piloted CDD to help urban communities cope with economic shocks caused by the global financial crisis. The pilot was implemented in Barangay Ligdong III in Rosario, Cavite, a peri-urban municipality, and in a few barangays in the cities of Malabon and Manila.¹⁵⁸



An ADB-funded sea wall in Barangay Katipunan, Pilar, Surigao Del Norte, was built through the KALAH-CIDSS National Community-Driven Development Project and serves as a dock for small boats and protects the barangay from flooding.

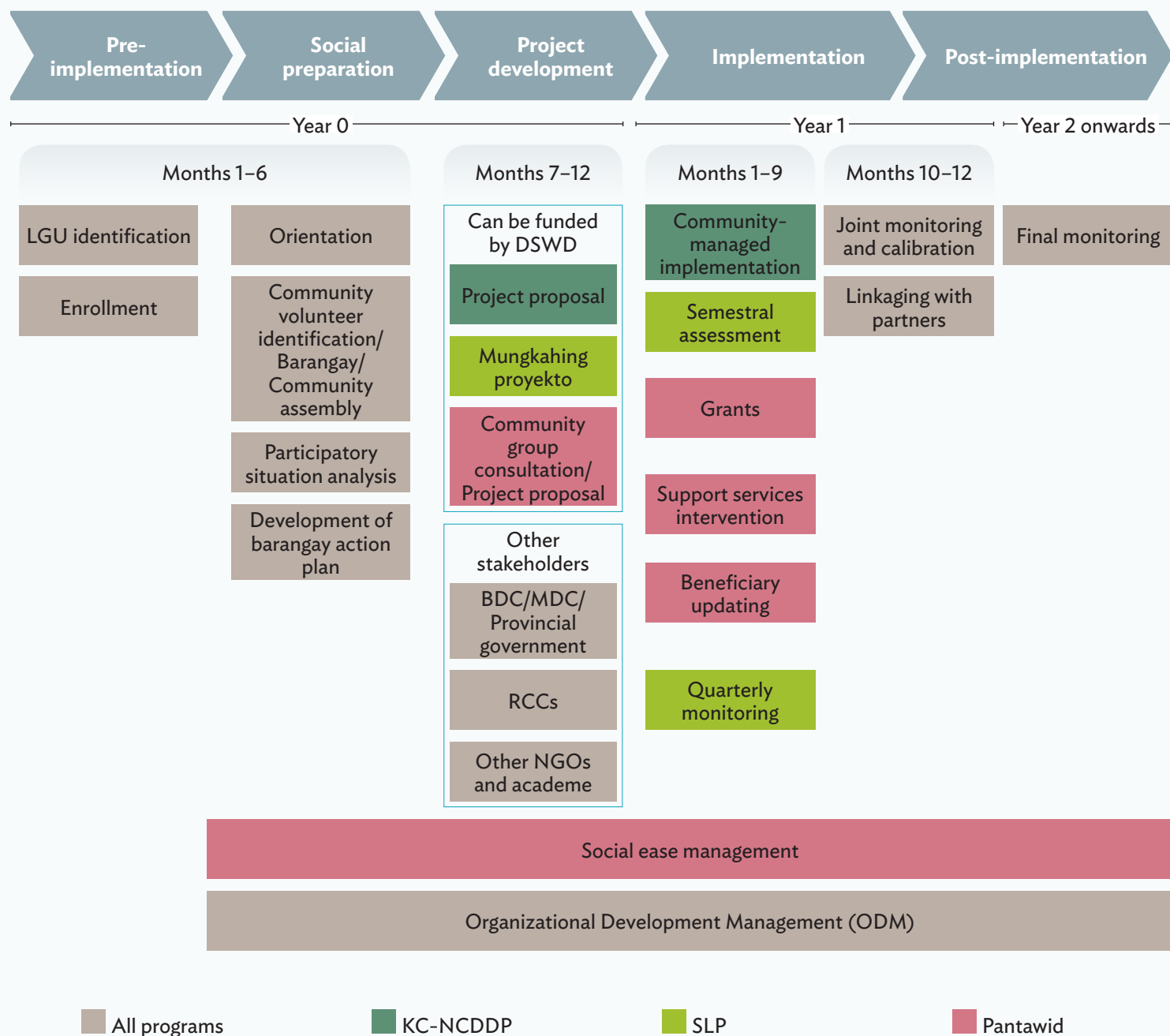
Barangay Ligtong III implemented dredging and desilting of a creek and construction of a line canal as its subproject, which generated employment for community members through cash-for-work activities.¹⁵⁹ The pilot also supported business development most suited to help the target community cope with the localized and various effects of the global financial crisis. However, the pilot demonstrated challenges in implementing CDD in an urban setting, especially in highly urbanized cities, including lack of willingness of residents to devote time to community meetings and activities essential for organizing the community and ensuring inclusiveness and people's participation in decision-making processes. The pilot offered lessons for developing an urban CDD as a means to build disaster and climate resilience.

CDD can also be useful component of big-ticket projects that minimize hazards and mitigate effects of climate change in highly urbanized cities. While community infrastructure is important to address the needs of communities, cities face hazards or risks particularly impacting the urban poor, which can be adequately addressed by large-scale infrastructure projects. Consultation and engagement with the private sector can ensure that large infrastructure initiatives employ CDD elements. These projects require resettlement that provides opportunities for secure tenure to informal settlers living in danger zones or project-affected areas. An example is the Metro Manila flood management project that crosses territorial boundaries between cities and involves community-driven resettlement of affected families. It is designed in ways that enable communities to participate in designing and implementing resettlement, and to be empowered to work with local government and key shelter agencies on building their preferred community, including ensuring their livelihood.¹⁶⁰

Attempts are being made to institutionalize CDD. In an effort to institutionalize CDD,

four authors filed a CDD bill in Congress (i.e., House Bill Nos. 4407, 4470, 4764, and 5250) from 2019 to 2020. These have now been consolidated by the Poverty Alleviation Committee into a substitute bill, which is now being processed for approval prior to transmittal to the Appropriations Committee and panel deliberation. DSWD, LGUs, community volunteers, and beneficiaries' programs continuously advocate the passing of the CDD institutionalization act.

DSWD harmonized CDD processes of its major social protection programs. The Harmonized CDD Process is an internal convergence strategy,¹⁶¹ which seeks to harmonize the program activities and tools of the three core social protection programs—SLP (see section on livelihoods, p. 56), 4Ps, and KALAHI-CIDSS—to improve the efficiency and impact on human development and poverty reduction. It integrates the principles of community organizing and CDD in the design and implementation of the three programs. The new strategy aims to synchronize the activities of these programs at the city and/or municipality level to avoid duplication and overlaps, capacitate the organizations formed to participate in the local governance process and ensure the sustainability of projects, and mobilize the community to be a support system to the SLP and 4Ps beneficiaries. In March 2020, DSWD issued a memorandum setting the guidelines for the implementation of the Harmonized CDD Process (Figure 5.4). A noteworthy feature of the strategy is the synchronization at the preparatory phase, the project implementation phase, and up to the phasing-out stage so that different program outputs and recommendations are shared and incorporated in the barangay and municipal development and investment plans. Part of the agreement is the harmonization of the Social Analysis Tool to be facilitated by the City/Municipality Action Team. The Harmonized CDD Process was initially implemented in June 2020 in five municipalities covered by the three programs.¹⁶²

Figure 5.4: Harmonized Community-Driven Development Process

BDC = barangay development council, DSWD = Department of Social Welfare and Development, KC-NCDDP = Kapit-Bisig Laban sa Kahirapan-Comprehensive and Integrated Delivery of Social Services – National Community-Driven Development Program, MDC = municipal development council, NGO = nongovernment organization, SLP = Sustainable Livelihood Program.

Source: Government of the Philippines, Department of Social Welfare and Development. 2020. *Guidelines on the Implementation of Harmonized Community-Driven Development (CDD) Process in Specialized/Promotive Programs*. Memorandum Circular No. 2 Series of 2020.

The Community-Based Monitoring System is a useful tool for participatory poverty and vulnerability assessment.

As part of its poverty reduction strategy, the government passed a law in 2019 on the establishment of the CBMS, an “organized technology-based system of collecting, processing and validating necessary disaggregated data that may be used for planning, program implementation and impact monitoring” at the city and municipal levels, which involves the participation of communities while empowering them in the process.¹⁶³ It provides data for formulating and implementing specific and responsive poverty alleviation interventions targeted to sector and community needs. The CBMS merges the methodologies for data collection activities of all national government agencies, geo-tagging, and the CBMS implemented by LGUs. Some cities in Metro Manila had installed the CBMS even before the passage of the CBMS Act. The CBMS data, which include climate and disaster risk variables,¹⁶⁴ can be used to support the participatory situational analysis phase in an urban CDD project in which community members work together to assess their community situation. In addition, the CBMS was also used by some LGUs for contact tracing for COVID-19 and implementing the government’s social amelioration program’s cash assistance to poor populations affected by the pandemic. The integration of social protection indicators in the CBMS and rollout to LGUs is a commitment by PSA and DILG under the draft Social Protection Plan 2020–2022.

Community-based science and technology interventions contribute to resilience building.

The Department of Science and Technology’s Community Empowerment through Science and Technology uses a community-based approach and covers both rural and urban areas, including Metro Manila. The program targets the poorest of the poor communities and provides science and technology interventions focused on five entry points: (i) health and nutrition, (ii) environmental protection and conservation,

(iii) human resource development, (iv) livelihood and economic development, and (v) disaster risk reduction management and climate change adaptation. Interventions include the distribution or deployment of traps for dengue prevention, and establishment of a municipal-based weather forecasting system and early warning system through the installation of light detection and ranging, and automated rain gauge.¹⁶⁵

CSOs implement community savings programs to cushion the adverse impact of disasters and climate change on the poor.

The networks of grassroots community organizations such as the Homeless People’s Federation of the Philippines has a history of supporting community organizing through an initial savings group process, often with women community leaders at the helm, who use their community savings to address collective infrastructure needs (including funding small-scale infrastructure such as drainage), leveraging financial support from other sources such as the Asian Coalition for Community Action or the CMP.¹⁶⁶ NGOs provide technical services such as architecture or disaster risk mapping, which can ensure that actions are closely targeted at local needs and implemented in the most cost-effective way. Community savings can also be pooled for other purposes as decided collectively by members, for example creating a separate disaster insurance fund for those whose houses are damaged in the event of a disaster, as a community insurance scheme.

The government maintains a database of urban poor CBOs.

The Presidential Commission for the Urban Poor, serving as a direct link between the urban poor and government, maintains a comprehensive database of accredited urban poor organizations that can be tapped for urban-based CDD programs. The accreditation is being undertaken by PCUP as part of partnership building with the urban poor organizations for the purpose of ensuring representation of the urban poor in policy, plan, and program formulation and facilitating service delivery. At present, PCUP’s

database is limited to its accredited urban poor organizations, but this is being expanded to include individual members of each urban poor organization. The commission also encourages the urban poor to organize themselves for community action and group representation in local development processes.¹⁶⁷ PCUP's presence in 84 resettlement sites within and outside Metro Manila by virtue of its mandate also has the potential to elicit data and information about the needs of the urban poor with regard to resilience.

Challenges and Gaps

CDD is based on “the principles of transparency, participation, accountability, and enhanced local capacity.”¹⁶⁸ It encourages a participatory bottom-up approach to engaging with international organizations and governments.¹⁶⁹ Often, these CDD principles are facilitated by NGOs or CBOs in urban areas. However, evidence demonstrates that implementing urban CDD in the Philippines presents a range of challenges and opportunities that need to be carefully considered.

Limited collective action in urban areas. Urban communities are large with a greater number of settlements, and therefore many communities remain unorganized and without any capacity for collective action in urban areas. Often, validation of beneficiaries is problematic where there are no means to objectively verify incomes and some residents only temporarily live in the community. The pilot program discussed earlier demonstrated the challenges of lack of community participation, especially in highly urbanized cities. This limited approach to collective action also results in private sector actors (including those leading large infrastructure projects) being less likely to adopt approaches that involve local communities and employ participatory approaches.

CDD can only be implemented for areas with security of tenure or with interim alternative arrangement on the use of land occupied by

the urban poor. Some lessons for CDD to build the resilience of the urban poor can be drawn from existing activities. First, the land tenure status of communities needs to be clarified, as this will affect the way in which CDD can be implemented and the priority issues to be addressed. For example, a community without formal tenure facing an immediate threat of eviction may not be suited for a CDD project that seeks to implement infrastructure upgrading, but could benefit from CDD to address livelihoods, which could strengthen community cohesion to address the eviction threat.¹⁷⁰ Communities with formalization of tenure in process, either through Presidential Land Proclamation or through a resettlement process, can benefit from collective funding (e.g., housing projects through SHFC), thus creating an opportunity to implement the CDD approach. CDD can also be used to address housing or community infrastructure needs, for example, in communities that already have formal tenure. The issue of tenure is especially acute in rapidly growing cities and Metro Manila, compared with smaller and medium-sized cities where informal settlements may be less prevalent and may not face eviction threats.

Need for community infrastructure facilities that prevent the spread of diseases.

Many low-income settlements lack safe water, adequate sanitation facilities, and drainage—all of which contribute to the high prevalence of infectious diseases. The COVID-19 pandemic highlighted the need to rethink the design and strictly implement standards for community infrastructure to help prevent the spread of infectious diseases.¹⁷¹

Need for closer coordination and collaboration between PCUP and DSWD.

Although PCUP is under the administrative control and supervision of DSWD by virtue of Executive Order 67 (2018), PCUP needs to harmonize its policies and coordinate its programs and activities with DSWD to ensure efficiency and responsiveness of service delivery to the urban poor. PCUP should also work

toward accreditation of urban poor groups to be able to participate in local development bodies and influence decision-makers to develop programs suited to their needs. PCUP sits in local housing boards in cities where they exist but has only four field offices—for Metro Manila and one each for the island groups of Luzon, Visayas, and Mindanao. Accredited and capacitated urban groups can represent PCUP in this very important body that caters to the housing needs of informal settlers.

What Can Be Done?

Contextualize the CDD approach for urban poor communities. CDD can provide small-scale community infrastructure (e.g., drainage, flood control, mangrove reforestation for coastal cities) or livelihoods needs that can potentially strengthen the disaster and climate resilience of the urban poor. The CDD implementation process can foster community participation, organization, and collective decision-making, thus strengthening social cohesion and enabling the community to be recognized and institutionalized as a community organization. However, expanding CDD to urban areas will require a careful and thorough review of the existing approach by taking into account the lessons from the pilot testing of urban CDD. Implementation design will have to be reviewed and modified to take into account the urban characteristics and the size of cities.

Promote cross-sector partnerships for CDD. Such partnerships can help to achieve greater social impact, particularly in urban poor communities. A cross-sector partnership strategy for CDD can become a change agent for the delivery of public services as it adds value by collaborating and tapping the capacities of other sectors, i.e., CSOs and the private sector, thereby creating social value while maximizing the financial and human resources available.

Explore the use of CDD in post-disaster recovery in urban areas. CDD can be a valuable approach in dealing with post-disaster recovery

in the urban areas if there is early involvement of displaced households in the reconstruction process, from negotiating land boundaries to the rebuilding process itself. For example, following Typhoon Yolanda in 2013, the CDD program was able to assist over 5 million people living in typhoon-affected communities. In this case, the CDD program made use of an existing network of facilitators, allowing resources to be easily channeled to meet emergency needs. Following disasters, displaced communities can organize while they are still in temporary shelters, so they can collectively drive decisions for the reconstruction (if returning on site) or construction of their resettlement sites. In such ways, resettlement projects can provide the necessary impetus for communities to organize and take collective decisions, laying the ground for further CDD action. The integration of the CDD process with housing and shelter interventions (see section on housing and shelter, p. 76) may help to transform informal urban settlements to formal locations where social protection can be accessed.

Closely coordinate with PCUP on use of its comprehensive register of community organizations. The PCUP list of registered community organizations could be a starting point for expanding urban CDD, as well as for targeting other initiatives of SHFC, DHSUD, and DSWD, including COVID-19-related interventions at the community level. These organized communities could support the formation of collective activities in currently unorganized communities, through shared activities and exchanges, with assistance from facilitators from local support NGOs close to the communities. LGUs can work with local NGOs to draw up a list of registered CBOs and unorganized communities in their area. Resilience-building initiatives in the urban poor communities can build on the organizational capacities developed through prior support from the NGOs by starting from several cities (e.g., Iloilo, Iligan, Mandaue, Quezon City, Naga, Legazpi, Talisay, Valenzuela, San Fernando-La Union).

Train community workers in resilient building design and construction as part of the design of urban CDD activities.

The training for community workers or volunteers in urban poor communities should include resilient building design and affordable no-regrets infrastructure measures that can be implemented as community infrastructure. Working with the LGU engineers will be critical for the community workers to seek guidance and to ensure compliance with government design standards. For instance, under TESDA's *Galing Mason* Program, UN-Habitat has partnered with the private sector to provide carpentry and masonry training to relocated families. Piloted in Marawi City, the participants of the skills training were hired as construction workers for the Rebuilding Marawi Shelter and Livelihood project.¹⁷²

Integrate CDD elements in big-ticket infrastructure projects, particularly those that reduce climate and disaster risk.

By integrating

CDD elements in big-ticket risk-mitigating projects in highly urbanized cities, project-affected urban poor families are able to participate in designing and building their community, although support may be required to ensure that they are well educated on risks and how to keep themselves safe in the event of disasters. This can improve the living or housing condition and livelihood of the affected urban poor families, and may provide security of tenure. By integrating the CDD elements in infrastructure projects, the beneficiaries influence the direction and execution, rather than merely receiving the benefits of the development projects. Active community participation can improve project design through the use of local knowledge, increase project acceptability, and help ensure project sustainability. These projects should, however, consider allocating ample time for community organizing work that is required for a participatory or community-driven resettlement process.



Planning and Urban Development

The prioritization and allocation of resources for service delivery, the safe location of development projects, and assessment of land for housing emanate from the plans that LGUs formulate. LGUs are mandated to prepare a comprehensive land use plan (CLUP) that is enacted through a zoning ordinance and a comprehensive development plan (CDP), a multisectoral plan formulated at city or municipal level which includes a vision, sector goals, objectives, development strategies, and policies over a 6-year span. The CLUP is prepared to rationalize the allocation and proper use of land resources. It projects the public and private uses in accordance with the future spatial organization of economic

and social activities. The CLUP is a long-term plan that supposedly guides the locational dimension of sectoral plans and programs in the CDP.

There are initiatives to mainstream disaster risk reduction and management (DRRM) and climate change adaptation (CCA) at different levels of government and across sectors, with the ultimate goal of integrating disaster and climate risks and action into local plans and budgets. For local governments, the challenges of DRRM and CCA planning are significant. The climate and disaster risk assessment (CDRA) is the main instrument for mainstreaming climate and disaster risk in the

CDPs and CLUPs of cities and municipalities. CDRA, which looks at the interrelationship of hazard, exposure, and vulnerability of an LGU to natural hazards and climate change impacts, is prepared to derive the risk information needed for mainstreaming in the CLUP and CDP, which inform action plans such as the Local Disaster Risk Reduction and Management Plan (LDRRMP), the Local Climate Change Action Plan (LCCAP), and the Local Shelter Plan.

CDRA is complex and data intensive, requiring overlays of multiple technical assessments and consultative engagement with communities and stakeholders to identify strategies and actions. Data and information can be sourced from multiple national agencies. There are available maps at the national level that can be used and verified using locally available information at the community level. However, there is a need to fully engage the community in using local data and information known to constituents and to complement the same with data from national government agencies to fully maximize their use in identifying more responsive resilience programs for the poor. Best practices in engaging local communities in disaster and hazard mapping from cities and municipalities should be replicated in the rest of the country.

What Is in Place?

A range of plans that can contribute to resilience of the urban poor are already in place.

Every LGU is required by established policies and guidelines to prepare its CDP, “enhanced” CLUP, Disaster Risk Reduction and Management Plan (DRRMP), LCCAP, and local shelter plans, using CDRA as a primary tool for analysis. If developed with a pro-poor lens, the urban poor can benefit directly or indirectly from the priorities identified in these plans. In particular, the CLUP and CDRA are important to understand the current and future risks brought about by climate hazards that the

urban poor face. Anchored on the required LCCP and DRRMP, the *Sambayanihan* Adapt 40-10-10 Strategy of the National Anti-Poverty Commission also focuses on poor provinces, municipalities, and barangays that are most exposed to climate change and on providing pro-poor basic services and access to climate-responsive dwellings, livelihoods, and employment.¹⁷³

Climate and disaster risk are assessed throughout the Philippines using CDRA.

It is the government’s main and minimum tool in mainstreaming CCA and DRRM in local plans. CDRA identifies the different hazards and hazard-prone areas in a municipality, includes climate impact chain analysis, and generates exposure map for each of five exposure units—population, natural resources, urban use, critical point facilities, and lifeline utilities. If this is done in such a way that it identifies the locations of the urban poor in relation to hazards, and assesses the risks that the urban poor face, it has the potential to be a valuable tool in building resilience for this group. A CDRA-informed local shelter plan could also help guide land suitability for housing the urban poor.

Minimum standards of compliance for resilient urban development form an important basis for building resilience.

Performance measures and reward systems have been in place to encourage LGU compliance with various laws. Since 2014, DILG has instituted the Seal of Good Local Governance,¹⁷⁴ an improved version of the previous Seal of Good Housekeeping program. It is an award, incentive, honor, and recognition-based program for all LGUs and is a commitment for LGUs to continually progress and improve their performance. Criteria for this award include convening a regional DRRMC, providing a contingency plan for the top two identified high-risk hazard, and having at least one Local Disaster Risk Reduction and Management Council or Office head or plantilla Local Disaster Risk

Table 5.3: Compliance with Mandated Local Government Unit Plans

Updated CLUP (2020) ^a	Completed LCCAP (2020) ^b	Completed DRRMP ^a	Approved Local Shelter Plans (2019) ^c
78 (53%) of 146 cities	1594 out of 1715 LGUs (78%)	90% of 108 component cities 88% of highly urbanized cities	202 out of 1,634 LGUs

CLUP = comprehensive land use plan, DRRMP = disaster risk reduction and management plan, LCCAP = local climate change action plan, LGU = local government unit.

^a ADB. 2022. *Advancing Inclusive and Resilient Urban Development Targeted at the Urban Poor: Urbanization Trends, Hazard Exposure and Sectoral Realities: A Macro View of Philippine Cities*. Consultant's report. Manila (TA 9513-REG).

^b The Department of the Interior and Local Government, Bureau of Local Government Supervision provides compliance monitoring data on the formulation of LCCAPs by local governments between 2016 and 2020.

^c Department of Human Settlements and Urban Development. Regional Operations Group. Consolidated Local Shelter Plan Data (as of July 2019).

Reduction and Management Office staff trained in the Incident Command System.

Planning and design is an important component of resilience of the urban poor. Development and spatial planning for climate change resilience have been addressed by UN-Habitat Philippines, together with DILG, DHSUD, NEDA, CCC, and the League of the Cities of the Philippines, through the Building Climate Resiliency through Urban Plans and Designs project. It initially covers the cities of Angeles, Cagayan de Oro, Legazpi, Ormoc, and Tagum. This project focuses on the overall urban system as a means of building the resilience of the urban poor, with the intention of mobilizing existing mandated plans to reduce the climate vulnerability of the urban poor beyond their housing needs.

Challenges and Gaps

Not all LGUs have completed the plans that support building resilience of the urban poor. Despite numerous laws, memoranda circulars, and similar directives mandating local governments to complete plans that can directly influence the climate resilience of the urban poor, only 78% of all LGUs have completed the LCCAP and only 88% of HUCs have DRRM plans (Table 5.3). While completion rates are higher

in 2020 (1,594 LCCAPs completed in 2020, compared to only 1,040 in 2018), much still needs to be done to reach 100% compliance, after which criteria or standards can be improved for all, especially the integration of some select donor- and CSO-supported approaches for targeted LGUs. Even where these plans have been completed, assessment of their quality or how they are applied is lacking, particularly in relation to the needs of the urban poor. CCC has a mandate to actively monitor those LGUs that are unable to complete their LCCAP and extend technical and capacity-building assistance. A better assessment of the reasons for non-completion can be used as a basis for improving the compliance of LGUs.

Plans for urban development do not reflect the needs and priorities of all the urban poor.

The mandated CDP and CLUP are both composed of various sectors, where infrastructure is regarded to support social, economic, environmental, and institutional goals. While the focus of the local shelter plan has always been housing the informal settlers, most of the mandated plans can include aspects that can directly or indirectly benefit all types of urban poor. At the moment, only ISFs have dedicated laws, policies, and programs, but, as this report notes, there are other categories of the urban poor beyond actual and targeted recipients of social housing. These population segments

can benefit from inclusive urban planning in the same way that the needs of other marginalized populations (e.g., older persons, people with disabilities, women) are addressed. These could be reflected in infrastructure and investment plans.

Urban planning should reflect the positive contributions of the urban poor in the urban economy.

One of the main functions of a city is to ensure economic opportunities and continued social services are provided to contribute to the overall well-being of its inhabitants and the country's overall socioeconomic development. It is a system of providers and users and public and private sector actors of different income and authority levels. A systems approach to understanding urbanization recognizes the interdependencies between cities, between sectors, and between different populations groups—planning that draws on this approach is likely to contribute to greater urban resilience, including of the urban poor. There is a need to view urban areas as communities and systems when understanding problems and thinking of solutions. For example, there is often a lack of other basic services and livelihood at resettlement sites, though not necessarily at the sites from which the urban poor are being relocated. Private utility companies keep them connected with water and electricity and close to jobs, but the urban poor can still be residing in an area at risk to various hazards (e.g., flooding, earthquake, urban heat island effect).

Planning decisions need to be informed by the needs of the urban poor to achieve resilient and inclusive urban development.

Discussion on the urban poor often focuses on specific sectoral issues and not on the larger urban system in which they live and which provides economic and social opportunities. Anecdotes from interviews for this report highlight the importance of access to livelihood and economic opportunities as the primary reason for the demand of in-city housing relocation and why relocated families outside the city keep returning. Despite these livelihood

opportunities, there likely is still an income gap that limits formal housing affordability. Aside from wages, there are gaps in assessing how transport costs and other household expenses contribute or limit the purchasing power and savings capacity of the urban poor. As LGUs are primarily responsible for directing urban development through land use and zoning plans, business permits, and other tools, the challenge is how to achieve a more equitable distribution of economic gains among all inhabitants, especially the urban poor. Planning decisions need to be supported by comprehensive data management systems and inclusive and participatory mechanisms in consultations and decision-making. There is a need to look into how urban development plans, urban design, and decision-making processes serve economic and market needs while also building the resilience of the urban poor. Discussions on emerging metropolitan areas and planned city extensions can also benefit from assessing its impacts on the urban poor and their role in economic activities and social cohesion.

Urban poor considerations need to be incorporated in urban planning in response to COVID-19.

This obviously also has significant impacts on the quality of and access to infrastructure serving the urban poor. However, it also has implications for policy responses to limit the spread of the disease, with public transportation being a challenging setting for reducing physical transmission. This highlights additional benefits for ensuring that urban poor settlements are located in close proximity to livelihood opportunities that ideally can be reached by nonmotorized transport.

What Can Be Done?

Mainstream resilience of the urban poor in urban planning and management.

The Government of the Philippines has spatial and development plans at the national, regional, and local levels. These generally include the economic, social, and institutional sectors. Further efforts to develop these plans at the local level need

to be actionable yet flexible, and supported by appropriate capacity strengthening for different types of LGUs. This points both to the need for improved guidance for these plans (to adequately incorporate the resilience of the urban poor) and improved support to LGUs in preparing these. This support could involve the League of Cities of the Philippines, which has a proven ability to share information and effective practices directly between LGUs that face similar challenges. The academe and nongovernment institutions may also be tapped to help undertake analytics and planning particularly for contiguous LGUs given the challenges in strengthening the capacity of LGUs. Capacity strengthening may also be needed by DILG and DHSUD and their regional offices as they guide LGUs in planning and implementing programs for the urban poor. Regional cooperation on urban planning will also be important, particularly for cross-boundary issues. Regional development councils and the Metro Manila Council are mandated to coordinate and integrate approved regional development plans and can do so in ways that build resilience of the urban poor. This will also need to ensure that development controls and building codes are appropriate for the urban poor—in terms of meeting immediate needs, affordability, and building resilience. This is also highly relevant in the response to COVID-19, when improvements to urban design can lessen the risks of disease transmission and improve access to social and basic services. The current design of cities in the Philippines means that many residents are unable to access health centers and other essential services without using motorized transportation. For example, the provision of bike lanes encourages mobility among urban residents including the poor. A shift to a health-sensitive urban design can yield co-benefits to the well-being of residents and the urban economy. For all of the issues above, urban planning and management should also incorporate behavior change measures to ensure lasting impact.

Provide more targeted support and capacity building for LGUs and concerned national government agencies to support

more LGU-targeted technical assistance.

This can include establishing a standard local data management system to support the implementation of plans. To ensure the effective implementation of the aforementioned plans, DHSUD and DILG may consider devising a synchronized monitoring and evaluation system that transcends compliance with these plans and focuses on the quality of plans and implementation capacity. Likewise, plans should put greater emphasis on mobilization, isolation, response, and connectivity to consider future circumstances such as emerging infectious diseases that put public health and safety at risk. Specific support can be provided for the implementation of the Local Climate Change Adaptation Plan Quality Assessment tool and for the expansion of the Risk Resiliency and Sustainability Program (RRSP) to complement a green recovery from COVID-19. This can include technical support to the CCC-DILG Local Government Academy to operationalize the assessment tool in LGUs, particularly in locations with high concentrations of urban poor residents. The RRSP covers increased adaptive capacity of communities; provision of adequate supply of clean air, water, and other natural resources; resilience of critical infrastructure; and enhanced knowledge and capacities. However, while the first phase of the RRSP (2018–2022) includes four major urban areas, it does not currently have an explicit focus on the urban poor.

Reflect in plans both the best available information and the inherent uncertainty around climate change.

Chapter 2 demonstrates the changing urban context in the Philippines, so planning is essential to ensure that urban growth is resilient for all urban residents, particularly the urban poor. Chapter 3 highlights that climate projections are inherently uncertain and vary across different parts of the country, so plans need to have inbuilt flexibility and opportunities for updating as the climate situation becomes clearer over time. These plans also need to be integrated with investment programming and with resources to fund the implementation of plans. While the

CDRA is a powerful tool in this regard, the data can be complex, and local understanding and interpretation of data limited. Hence, capacities of LGUs need to be strengthened down to the barangay level for managing data such as surveying, updating, and maintaining community records.

Support planning that builds resilience of the urban poor through additional databases.

These might include inventories of idle lands that can be used for social housing; inventories of existing CLUPs and zoning ordinances; geographic information system documentation on land use changes and reclassification of agricultural lands; inventories of housing stock; inventories of existing local shelter plans and local ordinances adopting these plans; and inventories of housing stock and listing of existing and potential beneficiaries of housing assistance, including their socioeconomic profiles and available economic activities that can provide livelihood opportunities for the urban poor. Where forests are part of urban areas, forest land use plans can be incorporated as inputs to CLUPs. The full implementation of Republic Act No. 11315 or the Community-Based Monitoring System (CBMS) Act of 2019, which envisions the improvement of local data management systems, will help to meet this need. An example of this type of database is the Metro Manila Geographic Information System, which was created by the Metro Manila Development Authority in 2018 to store and maintain spatial and non-spatial data from LGUs, and create and/or overlay and process data to form analysis across cities and/or the region to support the planning endeavors of Metro Manila.

Build awareness and capacity of urban planners and social development specialists to incorporate resilience of the urban poor into sector and urban plans. Greater levels of awareness of the challenges and potential solutions has the potential to lead to the inclusion of urban poor-focused actions in plans at various LGU levels, including local DRRM plans and also in responses to emerging threats such as COVID-19.

Associated capacity building will ensure that these plans are not only created, but that they are of a high quality and are implemented effectively. This awareness should recognize the potential benefits of urban greening projects, both in terms of their ability to address the urban heat island effect and as a source of nutrition through edible gardening. Potential partnerships with professional organizations, such as networks of licensed professionals (i.e., environmental planning, social work, landscape architecture, etc.) and the academe, may be explored to support this endeavor.

Invest in prioritization training to support the effective use of disaster management funds and other applicable funding sources.

As well as buying rescue and response gear and other initial capital investments, LGUs and communities can be assisted to plan and prioritize investments with a resilience lens for the benefit of the urban poor. At the local level, these can be translated into the investment component of LCCAPs and DRRM plans, or the Annual Investment Program, and can influence other social sector plans that cover other co-benefits (e.g., health and livelihood sectors). It is important to have separate but complementary approaches at national, regional, and local levels due to varying circumstances on the ground brought about by exposure to climate risk, concentrations of urban poor, and LGU capacity.

Increase the capacity of local governments to formulate a budget that is directed toward resilience goals.

LGUs tend to work around specific sources rather than consolidating them to expand physical targets of their programs. The 20% Development Fund and the Local Disaster Risk Reduction and Management Fund (LDRRMF) are two sources of funding that help build urban resilience. The Development Fund is intended for programs, projects, and activities in the Annual Investment Program, specifically those that lead to the achievement of socioeconomic and environmental outcomes. On the other hand,

the LDRRMF is intended for programs, projects, and activities designed to achieve climate and disaster risk management outcomes on disaster prevention and mitigation, preparedness, response, and recovery and rehabilitation. However, the lack of a harmonized budgeting system for these two funds can translate into inefficient budget allocations. The LDRRMF is based on the LDRRMP and the Investment Program, which are approved by a multiagency council; and the Development Fund on the CDP and local development investment program, which are approved by the Local Development Council. Thus, some LGUs implement flood control projects with physical targets limited to what can

be allocated from the Development Fund instead of looking also, for example, at the LDRRMF to increase scope since the project qualifies as a flood prevention or mitigation project. A regular and structured assessment would form a good platform to harmonize budgets, as has been done by DILG in partnership with Metropolitan Manila Development Authority (MMDA). The Local Climate Change Expenditure Tagging, pursuant to Joint Memorandum Circular 2015-01 of the Department of Budget and Management, DILG, and CCC is one of the decision-support tools that may help local government units rationalize their investment programming and budgeting processes for climate change and DRR-related interventions.

Enabling Resilience of the Urban Poor

Chapter

6





As has been highlighted throughout this report, building the resilience of the urban poor requires integrated and complementary activities across a range of policy areas and levels of scale and subsidiarity. Actions in specific policy areas (as discussed in Chapter 5) need to be enabled through a supportive enabling framework—governance, data, and finance—that should be in place for interventions to be successful. This chapter analyzes the necessary preconditions in these three areas that will need to be addressed if specific programs and activities that build the resilience of the urban poor are to be realized in the Philippines.



Capable, Accountable, and Responsive Governance to Enable Resilience of the Urban Poor

Promoting climate and disaster resilience of the urban poor in the Philippines requires an in-depth understanding of the existing administrative, political, financial, and institutional arrangements, processes, and mechanisms to manage and mitigate the negative impacts of disasters and climate change on the urban poor. It also requires integrating complementary activities undertaken by different stakeholders across a range of policy areas and at different scales. These are essential to the effective design of investment projects that aim at promoting climate and disaster resilience targeting the urban poor.

1. The Relevance of Governance in Building Resilience of the Urban Poor

Governance—and the associated formal and informal processes—is arguably the single most important enabler or obstacle to effective climate and disaster resilience management and strengthening in any country. Urban governance refers to the many ways institutions and individuals manage the day-to-day affairs of a city or urban setting, and the processes used for effectively realizing short- and long-term development agendas, including legal frameworks, political, managerial, and administrative processes.¹⁷⁵ Key to good urban governance is a shared understanding of the roles and responsibilities across all tiers of government, coupled with an appropriate distribution of resources.¹⁷⁶ Collaboration with all relevant stakeholders (civil society, citizens, private and public sectors) also needs to be supported and strengthened, in order to offer opportunities for dialogue with and contributions from all segments of society.

There are several key elements associated with capable, accountable, and responsive governance:¹⁷⁷

- the importance of civic engagement and participation, including the empowerment of citizens (especially women) and the recognition and support of the civic capital of the poor;
- subsidiarity of authority and resources to the closest appropriate level consistent with efficient and cost-effective delivery of services;
- equity of access to decision-making processes and use of resources;
- efficiency in the delivery of public services and in promoting local economic development;
- transparency and accountability of decision-makers and all stakeholders;
- security of individuals and their living environment; and
- sustainability in all dimensions of urban development.

Good urban governance is a critical factor in shaping the way in which many of the dimensions of urban poverty are addressed in decision-making and programming: among other things, governance influences tenure security, access to basic services, and livelihoods. Similarly, urban governance has a significant role in integrating programs and activities across policy areas and different scales (individual, household, community,

city, national), which is of major importance in building urban resilience more broadly—and resilience of the urban poor in particular. Building the resilience of the urban poor requires adapting a good governance framework to the reality on the ground and ensuring that the right responsibilities exist at the right level. Decentralization is therefore key, but this must take different management capacities and urbanization levels into account (including the category and capacities of cities and municipalities identified in Chapter 2).

2. Existing Provision and Current Gaps

The Philippines has a well-developed and sophisticated system of governance that gives LGUs the responsibility for local development and service delivery, consistent with the principle of subsidiarity. Decentralization from the unitary state began in 1987 and is considered one of the most far-reaching in the world.¹⁷⁸ The Local Government Code of 1991 (Republic Act No. 7160) provides the framework for the devolution of powers, authority, responsibilities, and resources to LGUs. It widened the roles and functions of local governments and expanded their jurisdiction over basic services and facilities relevant to urban resilience, including land use planning, solid waste disposal, water supply and waste water management, local roads, flood control, environmental management and pollution control, and housing, as well as social welfare services and health-care services and facilities.

Devolution was supported by increased financial resources from national government transfers and authority to raise revenues from local sources (i.e., taxes, fees, and charges). A number of national to local fiscal transfers are in place, with the internal revenue allotment being one of the largest transfers. The Supreme Court also issued the Mandanas-Garcia ruling in 2018, (confirmed in 2019), which increases the internal revenue allotment to LGUs by a

total of 27.61% to support unfunded mandates. This can increase the absolute value of the 5% DRR fund an LGU will receive as well.¹⁷⁹ Among the local revenues, business tax is the main income driver of cities given the concentration of commercial and economic activities in urban areas. LGUs may also contract loans or float bonds and enter into public–private partnership arrangements to tap the private sector in financing capital-intensive projects.

By providing autonomy for local revenue and spending, taxation, and borrowing, it also provides opportunities for local development and resilience building. Even with increasing financial resources, the problem of unmet basic services persists. This may partially be explained by spending patterns. Cities have devoted the bulk of their budgets to general public services that cover general administration such as executive and legislative services, treasury, budgeting and auditing services, property and supply administration, and information services (Table 6.1). The second-biggest portion of expenditure is for economic services, which include architectural and engineering services, operation of local enterprises such as markets, slaughterhouses, transportation and waterworks, cooperative programs, livelihood projects, and other economic development programs, among others. The rest of the budget is spent on health, education, social welfare, housing, and labor and employment.

The country also has a well-established decentralized institutional and legal framework for disaster resilience, which incorporates mechanisms for people and NGOs to participate in decision-making and program implementation.

A strong civil society can be a central partner to build resilience of the urban poor. Alongside this decentralization trend, the Philippines hosts a highly active civil society. Cause-oriented NGOs emerged to address issues on human rights

Table 6.1: Expenditure Profile of All Cities, Selected Years (₱ million)

Particulars	2005	2010	2015	2018
Total expenditure (all cities)	56,484.41	97,049.40	128,237.93 128,237.93	171,227.52 171,227.52
Share to total (%)				
General public services	43.62	53.49	51.55	50.46
Education, culture, and sports/human resource development	13.40	9.37	8.45	7.9
Health, nutrition, and population management	9.03	9.51	10.31	12.5
Labor and employment	0.07	0.06	0.16	0.2
Housing and community development	4.40	5.08	4.82	4.6
Social services and social welfare	2.66	3.79	6.02	7.8
Economic services	20.85	16.76	17.26	15.6
Debt service	5.96	1.94	1.43	0.9

Source: Department of Finance, Bureau of Local Government Finance.

violations and inadequate service delivery in the 1970s, aiming principally to alleviate poverty and assist victims of political action, with many becoming involved also in disaster risk reduction following a series of major disaster events.¹⁸⁰

The 1987 Constitution laid down the foundation for citizen participation in governance. It encouraged establishment of nongovernment, community-based, or sector organizations that promote welfare, respect by the state of the role of people's organizations to enable people to pursue and protect their collective interests and aspirations, and establishment by the state of adequate consultation mechanisms to allow effective and reasonable participation by these organizations. The country's active civil society promotes effective community participation in disaster resilience. The 1991 Local Government Code, on the other hand, in support of the government's decentralization policy, established the Local Development Council with at least one-quarter membership by nongovernment representatives of locally accredited CSOs. Almost the same ratio of representation of CSOs was adopted in the local disaster risk reduction and management councils, which were created by the 2010

Philippine DRRM Act. CSOs also have a seat on local health and school boards, solid waste management boards, local peace and order councils, and local project monitoring committees.

The urban poor, if not formally organized, channel their concerns through NGOs chosen to be members of local bodies. PCUP personnel (area coordinators) are assigned to strategically located areas under each field office. In the case of the legislative body, sectoral representation come from women, labor, and other sectors (urban poor, indigenous peoples, persons with disabilities). The formation of "PCUP-accredited local urban poor councils and assemblies" in various cities and municipalities could help to ensure that the voice of this group is included, while "deputization" of competent and trained leaders to represent PCUP on local housing boards should enable the urban poor to influence policies and programs. If selected, the urban poor are able to contribute to decisions on LGU zoning ordinances, which is critical in the allocation of land for affordable housing that may benefit them, as well as in the allocation of resources for targeted programs

for the urban poor through the legislative body's review and approval of the annual budget.

Several key institutions play a particularly important role in building climate and disaster resilience of the urban poor.

A range of institutions have a role in building the resilience of the urban poor at different levels—and good urban governance is critical to ensure cross-sectoral coordination. At the national level, these institutions include the following departments and agencies:

- **Government line departments:** Department of Social Welfare and Development (DSWD), Department of Human Settlements and Urban Development (DHSUD), Department of the Interior and Local Government (DILG), Department of Health (DOH), Department of Labor and Employment (DOLE), Department of Environment and Natural Resources (DENR), Department of Science and Technology (DOST), Department of Public Works and Highways (DPWH), Department of Trade and Industry (DTI), and Department of National Defense (DND).
- **Government staff agencies:** National Economic and Development Authority (NEDA), National Housing Authority (NHA), Climate Change Commission (CCC), National Disaster Risk Reduction and Management Council (NDRRMC), Presidential Commission for the Urban Poor (PCUP), National Anti-Poverty Commission (NAPC), Social Housing Finance Corporation (SHFC), and Philippine Atmospheric, Geophysical, and Astronomical Services Administration (DOST-PAGASA).

Many of the abovementioned agencies are members of the COVID-19 Inter-Agency Task Force for the Management of Emerging

Infectious Diseases (IATF-EID) that impacts on resilience and links with efforts on building urban poor resilience. Cross-sectoral coordination within the executive branch of government is critical to ensure an effective government response to any pandemic and building wider resilience. Coordination is horizontal and vertical, with the task force providing guidance to LGUs on COVID-19 responses. Collaboration between the executive and legislative branches of government at national and local levels is also critical in addressing a pandemic or emergency situations.

The Risk Resiliency Program (RRP) is a convergence program adopted by the Cabinet Cluster for Climate Change Adaptation, Mitigation, and Disaster Risk Reduction (CCAM-DRR) to provide an opportunity to strengthen convergence among agencies and aid in strengthening the resilience of natural ecosystems and the adaptive capacity of vulnerable groups and communities to short- and long-term risks. The program covers existing and new programs, activities, and projects on CCA and DRRM. It aims to contribute to the attainment of the Philippine Development Plan (2017–2022) goal of inclusive growth by minimizing the impacts of disasters on the national economy, the environment and natural resources, and the communities through adaptation, disaster prevention and preparedness, and climate change mitigation. Investments under the RRP are expected to enhance resilience to extreme weather events, and adaptation to climate change. Initially, the program is designed to support investments by national government agencies based on planning and consultations at provincial and regional levels. As the program grows, opportunities to mobilize additional financing sources will be considered (see also section on climate finance, p. 121).

Agencies do not have an explicit mandate to target the urban poor. Despite the high level

of relevance of the agencies identified above in addressing the resilience of the urban poor, most agencies (apart from PCUP) do not have the explicit mandate to target the urban poor; it is mainly one among the many responsibilities of LGUs. There is also a lack of a comprehensive and consolidated repository of information characterizing the urban poor, their location, and their needs—whether it be for housing and shelter, livelihoods, and exposure to climate and disaster risks. Similarly, while there is clear responsibility for many climate change and disaster issues, this is not fully mainstreamed across the range of actors and stakeholders that

will need to contribute to it. PCUP has explicit directives and programs as regards its target clients. Through the years, the mandate and functions of the commission have evolved and expanded, recently integrating climate change resilience into its milieu of service. The capacity and future potential of PCUP, currently under DSWD supervision, to undertake CDD should be maximized.

Table 6.2 includes nine key national departments and agencies with significant roles in building the resilience of the urban poor.

Table 6.2: Key Departments and Agencies for Building Resilience of the Urban Poor

Central Responsibilities	Relevance to Building Resilience of the Urban Poor
National Economic and Development Authority (NEDA)	
<p>NEDA is the economic and social development planning and policy coordinating body, providing macroeconomic forecasting and policy analysis and research to policy makers. Among its responsibilities are</p> <ul style="list-style-type: none"> • coordinating activities (e.g., policy formulation, planning, and program development) aimed at setting the comprehensive parameters for national and subnational (area-wide, regional, and local) development; • reviewing, evaluating, and monitoring infrastructure projects that contribute to increasing investment spending for infrastructure facilities; and • providing policy alternatives to decision-makers by undertaking short-term policy reviews and critical analyses of development issues. 	<p>In its role of setting comprehensive parameters for national and regional development, NEDA can help mainstream the development of resilience-building strategies at the regional level. It issues planning guidelines to its regional offices for the formulation of regional development plans. Based on its analyses of urban poverty and vulnerability, NEDA can identify investments in social protection, health-care systems, resilient infrastructure, and social services targeted at the urban poor that will contribute to building their resilience. It has regional offices that help provinces prepare climate and disaster risk-sensitive plans.</p> <p>NEDA is also responsible for the recovery and rehabilitation pillar of the National Disaster Risk Reduction and Management Council. It develops guidelines for building back better of disaster-affected communities.</p> <p>Other oversight agencies related to NEDA functions are the Department of Budget and Management (for budgeting, to ensure that resilience-building programs get budgeted) and the Department of Finance (for resource mobilization, to generate revenue for local government units).</p>
Department of Human Settlements and Urban Development (DHSUD)	
<p>DHSUD is the primary government entity that plans, develops policies, and coordinates and monitors programs on housing, human settlements, and urban development concerns. Its powers and functions cover four key areas:</p> <ul style="list-style-type: none"> • policy development, coordination, monitoring, and evaluation; • environmental land use and urban planning and development; • housing and real estate regulation; and • homeowners' associations and community development. 	<p>Under DHSUD are two attached corporations that provide shelter security to the urban poor— the National Housing Authority and the Social Housing Finance Corporation— a critical component of resilience for this group.</p> <p>Through its role of formulating policy frameworks such as the National Informal Settlements Upgrading Strategy and the National Resettlement Policy Framework, DHSUD guides the shelter agencies in developing programs that promote building the resilience of the urban poor by ensuring shelter security and access to livelihood and basic services. DHSUD also assists local governments in the development of local shelter plans to ensure that the needs of urban poor communities and families for resilient shelter are addressed in these plans.</p>

continued on next page

Table 6.2 *continued*.

Department of Social Welfare and Development (DSWD)	
DSWD is the primary government agency tasked to develop, implement, and coordinate social welfare, social protection, and poverty reduction programs (for disadvantaged children, youth, women, older persons, people with disabilities, families in crisis or at-risk, and communities needing assistance). Although the delivery of basic services is devolved to local government units (LGUs), DSWD undertakes policy and program development, standards setting, technical assistance, and monitoring for LGUs, nongovernment organizations, and other members of civil society in implementing social welfare and development programs. As the primary agency on social welfare and development, it oversees the implementation of related programs and services at all levels.	<p>DSWD exercises vast policy-making and implementing functions related to poverty reduction, community development, and social protection, which all contribute to resilience building. As such, it implements programs that directly target the poor and vulnerable families, including those living in urban areas, and its interventions reach the community and household levels. Since the delivery of its services is devolved to local governments, it can closely coordinate its programs with other services being provided by LGUs.</p> <p>Although the target communities for <i>Kapit-Bisig Laban sa Kahirapan-Comprehensive and Integrated Delivery of Social Services (KALAHI-CIDSS)</i> are mostly rural areas (and a few urban areas in the provinces), it works closely with the Department of the Interior and Local Government in harmonizing the community-driven development approach with the local development process. This policy enhancement initiative enables the community members, civil society organizations, and/or sectoral representatives to meaningfully participate in planning, implementing, and sustaining community development projects.</p>
Climate Change Commission (CCC)	
CCC is the lead policy-making body of the government mandated to coordinate, monitor, and evaluate the programs and action plans of the government relating to climate change. It ensures that climate change is mainstreamed in development plans at different levels—national, local, and sectoral.	<p>It ensures that climate change-related efforts of LGUs, being on the front line of formulating, planning, and implementing climate change action plans, are consistent with the National Climate Change Action Plan.</p> <p>Climate-informed development will help to ensure that efforts to address the shelter and livelihood needs of the urban poor are more resilient.</p> <p>No new subnational structures were created as counterparts of CCC. Instead, climate change action planning will be mainstreamed into the local planning and development office.</p> <p>CCC also manages the People's Survival Fund for climate change adaptation by providing support as the secretariat to the fund's board.</p>
Cabinet Cluster for Climate Change Adaptation, Mitigation, and Disaster Risk Reduction (CCAM-DRR)	
CCAM-DRR, reorganized through Executive Order No. 24 series 2017, is the lead in the effective integration of policies and programs on climate risk management, disaster risk reduction, and sustainable development. It has set its road map aimed at achieving the overall goal of climate- and disaster-resilient communities supporting equitable and sustainable development.	<p>The CCAM-DRR road map has four outcomes:</p> <ul style="list-style-type: none"> • increased adaptive capacities of vulnerable communities; • ensured adequate supply of clean air, water, and other natural resources; • increased resilience of critical infrastructure; and • enhanced knowledge, access to information, and institutional capacities. <p>The focus areas of the road map are the 17 climate vulnerable provinces, and the major urban centers (Metro Manila, Cebu, Iloilo, and Davao). The prioritization criteria applied include high poverty incidence; high susceptibility or exposure to hazards (e.g., drought, strong winds, flooding, rain-induced landslide, storm surge); and location in critical and degraded watershed.</p> <p>The agencies with initial involvement in the adoption of the Risk Resiliency Program key investment areas are the Department of Environment and Natural Resources (as lead), Department of Public Works and Highways, Department of Agriculture, and Department of the Interior and Local Government. All provinces within the geographic areas designated by the road map would be eligible to participate in the Risk Resiliency Program. This is designed to both encourage the development of a portfolio of subprojects across the spectrum of vulnerable LGUs, while also providing a demonstration effect, whereby “early movers” catalyze other provinces to participate.</p>

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Table 6.2 *continued*.

National Disaster Risk Reduction and Management Council (NDRRMC)	
NDRRMC is the focal point for disaster rehabilitation and recovery. It coordinates all disaster preparedness programs, disaster response operations, and rehabilitation efforts undertaken by the government and the private sector. It is tasked to prepare for, and respond to, natural calamities, and to monitor armed conflicts, maritime accidents, and other human-induced emergencies.	<p>According to Republic Act No. 10121, NDRRMC's enabling law, the council formulates a national disaster risk reduction and management framework that provides for a "comprehensive, all hazards, multi-sectoral, inter-agency and community-based approach to disaster risk reduction and management." It thus provides a governance structure for disaster risk reduction involving all concerned agencies and reaching the community level where risks that particularly affect the urban poor can be identified and mitigated.</p> <p>NDRRMC provides disaster risk reduction and management policy guidelines to local disaster risk reduction and management councils.</p> <p>The Secretariat, Office of Civil Defense, manages the National Disaster Risk Reduction and Management Fund and endorses projects of national government agencies and local government units to the President for approval.</p> <p>The Updated National Disaster Risk Reduction and Management Framework and Plan was approved by NDRRMC on 30 October 2020. It incorporates a range of issues and approaches that strengthen its ability to build the resilience of the urban poor. These include</p> <ul style="list-style-type: none"> • an emphasis on the centrality of risk and a focus on an all-hazards approach; • a recognition that risks are systemic in nature and changes over time with the interplay of people's level of capacity and vulnerabilities amid the changing climate, including extreme and slow-onset events and human-made activities; • an adoption of the priority actions of the Sendai Framework; and • an inclusion of risk governance and a stronger focus on resilience strengthening.
Department of the Interior and Local Government (DILG)	
DILG exercises general supervision of local government units in the performance of their mandates based on the Local Government Code of 1991.	<p>DILG serves as a conduit in the implementation of national programs at the local government level. This function includes, as may be deemed necessary, assistance to national government agencies in the coordination and implementation of their programs at the LGU level. These are done through field-level coordination, issuance of appropriate advisories and policies addressed to the different LGUs, and established performance-based assessment and incentive systems.</p> <p>Specifically on disaster risk reduction and climate change adaptation policies, DILG chairs the preparedness pillar of the NDRRMC and spearheads issuance of appropriate policies and guidelines in terms of coordination with relevant agencies.</p>
Department of Environment and Natural Resources (DENR)	
DENR is the primary agency responsible for the conservation, management, development, and proper use of the country's environment and natural resources, specifically forest and grazing lands, mineral resources, including those in reservation and watershed areas, and lands of the public domain, as well as the licensing and regulation of all natural resources as may be provided for by law in order to ensure equitable sharing of the benefits derived therefrom for the welfare of the present and future generations of Filipinos.	<p>Urban infrastructure (water, sanitation, energy, communications, and transportation systems) is critically important for emergency response and the quick recovery of the community and its economy. Combined with land use planning, ecosystems management approaches for resilience in urban areas make use of the existing natural landscape and can significantly decrease the cost of urban infrastructure projects. Ecosystem management requires an understanding of ecosystem services and the local urban environment. Methodological tools can help to integrate ecology into urban resilience. There are a number of ecosystem management strategies that are relevant to urban resilience and, more broadly, to disaster risk reduction, including watershed management (e.g., coastal zone management), urban landscape design, green and blue infrastructure, and environmental buffers.</p>

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Table 6.2 *continued*.

Department of Finance (DOF)	
DOF is responsible for the formulation of revenue policies that will ensure funding of critical government programs that promote people's welfare. It heads the Investment Coordinating Committee and recommends approval by the President of official development assistance (loans and grants) contracts and agreements. The DOF Bureau of Local Government Finance formulates policies that enhance the real property taxation function of local government units and assess the creditworthiness of LGUs, which is a requirement for accessing loans. LGUs submit their annual statement of revenues and expenditures to the bureau.	DOF is at the forefront in developing risk financing in partnership with development partners (e.g., Asian Development Bank, World Bank), and the Government Service Insurance System establishes risk insurance instruments for provinces and cities.
Sources: Government websites and Asian Development Bank.	

Cross-sectoral collaboration among these institutions is a key element of ensuring an integrated approach to building resilience of the urban poor.

Investing in systems thinking, particularly to arrive at a shared understanding of urban complexities and to design shared solutions, is a critical dimension of urban resilience. This will help to enable complementarity and synergies in the activities led by different agencies, and will also help to avoid duplication. The creation of a coordinating body to oversee the work in a range of departments that are critical to responding to hazards may also be an effective response. Discussions have been undertaken on the possibility of creating a new central coordinating body (possibly a Department of Disaster Resilience).¹⁸¹ Some elements of this can be seen in the Risk Resiliency Program (RRP). The RRP is the implementing program of the Climate Change Adaptation and Mitigation and Disaster Risk Reduction (CCAM-DRR) Roadmap 2018–2022 that uses the Program Convergence Budgeting approach, wherein several government agencies, led by DENR, work as one to meet common objectives, instead of competing for budgets. Though the RRP is largely involved in the planning and preparation stages, efforts have been made to include monitoring and evaluation (e.g., operations manual). It is important to ensure that any future coordinating entity also emphasizes the importance of collaboration

between LGUs for comprehensive resilience planning and investments. This might require the use of performance and financing instruments to induce LGU participation.

Decentralization presents both opportunities and challenges to building resilience of the urban poor.

In principle, local decision-making should result in a higher level of focus on locally significant issues, which may include those facing the urban poor. However, without national and local political commitment (supported by leadership from higher levels of government) reflected in the policy agenda, building resilience for this group might not be consistently and systematically treated as a priority. Cabinet cluster groups, which provide a strong opportunity to inform the policy direction of departments and agencies, were identified by stakeholders as being particularly important in this space.

Despite the presence of national policy directions, cities and municipalities have flexibility in how to implement these depending on their context and capacities and in making their local development processes and service delivery more inclusive by addressing issues of urban poor and other vulnerable groups. In times of a pandemic or emergencies, however, a temporary governance framework that enhances the supervision of a national

government over LGUs is necessary to ensure that local government initiatives and innovative responses to the pandemic or emergency situations are within the ambit of such a framework.

Overlapping institutional mandates can negatively affect resilience of the urban poor.

Urban governance in the Philippines involves many institutions with overlapping mandates, depending on the sectors each represents. This results in inefficient institutional coordination for planning, implementation, and operation of infrastructure and services. Whether it is for planning, funding, and implementing or addressing transboundary issues such as solid waste management and climate change adaptation challenges, urban development initiatives have often been fragmented at the national and regional levels. The lack of effective urban governance mechanisms, particularly for regional-scale or interprovincial infrastructure projects involving interjurisdictional cooperation, has resulted in negative impacts on economic competitiveness, the environment, and the delivery of reliable, affordable, and resilient urban services, in particular to the most vulnerable groups (endnote 140).

There is a need for a unified urban policy in the country.

It is lodged in several laws, plans, and frameworks: Local Government Code, National Urban Development and Housing Framework, Philippine Development Plan, and the National Framework for Physical Planning. It is not clear which is the principal framework, nor has there been an attempt to evaluate consistency and effectiveness. Integration and adoption of climate resilience principles and priorities to “business-as-usual” urban policy also need further emphasis. To rationalize the housing and urban development sector, DHSUD is the primary national government agency responsible for the management of housing, human settlements, and urban development, with the different key shelter agencies (National Housing Authority, Social Housing Finance Corporation, National

Home Mortgage Finance Corp, and Home Development Mutual Fund) remaining attached. Prior to the creation of DHSUD, urban development was less emphasized, compared to housing. How the urban development mandate will crystallize will have overriding consequences on the management of issues attending urban expansion.

Interjurisdictional governance plays a critical role.

Collaboration and coordination are critical also across administrative boundaries and at different scales in building the resilience of the urban poor. Most of the hazards discussed in Chapter 3 impact areas beyond and across administrative boundaries, and many can be worsened or improved by activities taking place in different locations (e.g., dumping of waste in rivers can lead to flooding in downstream neighborhoods). Many of these issues particularly affect the urban poor, and coordination will be an important element of building resilience. The creation and operation of inter-LGU cooperation or interjurisdictional initiatives to address common problems have been challenging, not only due to the denial of comingling of funds among LGUs but also due to limitations of their authority. While provincial governments can serve as quasi-metropolitan arrangements, highly urbanized cities are not part of their authority, with the latter often having more challenges with the urban poor despite having more resources at their disposal for solutions. This is relevant to issues of resilience of the urban poor, as many of the factors shaping risk are inherently transboundary in nature. For example, inadequate solid waste management in one administrative area may result in blockages to drainage channels and flooding in an adjacent area; or the management of the urban heat island effect relies on actions taken across a metropolitan area.

Interlocal groupings (whether formal “metropolitan areas” or less formal arrangements)¹⁸² allow for transboundary planning and solutions to entire city regions which can be critical to addressing the

cross-boundary issues of climate and disaster risk that affect the urban poor. One such example is the MMDA, which was established by a 1995 law (replacing Metro Manila Authority that had existed since 1990). It administers the region as a metro-wide governance and coordination body mandated to ensure that plans, programs, and policies of individual cities are compatible with one another in areas including development planning, transport and traffic management, solid waste disposal, flood control, urban renewal, and zoning, land use planning and housing policy, health and sanitation, and public safety. This structure provides an opportunity for the type of holistic planning and implementation required to address resilience in development planning, including a focus on the needs of the urban poor. However, the effectiveness of MMDA is reduced by (i) the lack of budgetary resources given its limited revenue-raising powers, and (ii) its perceived place in the political hierarchy relative to the mayors of the cities comprising Metro Manila given that the MMDA chair is not elected but appointed by the President.¹⁸³

An example of inadequate interterritorial coordination on decentralized disaster risk governance can be seen in the case of the Municipality of Hagonoy in the Province of Bulacan. The municipality has had limited opportunity to address risk factors outside municipal boundaries, such as the perceived need for dredging in the mouth of Manila Bay and removal of illegal fishponds along the Bay Area.¹⁸⁴ While it is often assumed that LGUs will naturally be able to work with each other, there may need to be support structures and incentives to encourage and enable this, particularly where they have different levels of capacity.

New directions, which are critical to the achievement of the common goals in risk reduction, sustainable development,

and climate-resilient pathways, have been identified in the Updated National Disaster Risk Reduction and Management Plan 2020–2030. These include the following:

- investing for resilience;
- making risk-informed investments;
- investing in local data collection;
- advancing digital transformation;
- building resilient livelihoods;
- prioritizing building back better;
- enhancing a multisectoral approach;
- ensuring gender-responsiveness;
- promoting locally led ecosystem-based DRRM and CCA;
- ensuring inclusion and meaningful participation;
- assuring public–private partnerships;
- ensuring coherence;
- establishing a functional results-based monitoring and evaluation system;
- striving for self-reliance; and
- investing in public health.

Actions at the local government level are important in building resilience, particularly where these are participatory and community driven. Participatory and community-driven processes are central elements of governance in the Philippines and are embedded in local development practices. Local development councils, comprising a quarter NGO and CBO

members, could be an entry point for urban poor representation and integration of inputs from community consultations or barangay action plans. However, concerns exist in relation to the effectiveness of local development councils, given that these NGOs and CBOs consist of a collection of groups of varied interests and causes that rarely speak as one in the council. For example, local development councils are mandated to prepare enhanced CLUPs, which factor climate and disaster risk information and adopt inclusive development approaches, but not all of these have been completed, nor are they updated sufficiently regularly. However, opportunities exist to build on and/or strengthen these participatory governance processes. This can include working with active civil society organizations (CSOs) that can help to connect informal and community-based processes with formal governance structures, and with the private sector to shape local economic activities and to support livelihoods.

Another mechanism for enabling representation of the urban poor is the Urban Poor Affairs Office, which functions to identify and address concerns and needs of the urban poor at the LGU level. This office is mainly involved in housing (e.g., the Community Mortgage Program) and resettlement initiatives. Another still is the local housing boards, which include representatives of NGOs and community organizations. These boards oversee evictions and resettlements and also participate in the development of local shelter plans. However, not all LGUs have created them and regularly convene them in practice. These types of bodies demonstrate approaches for including the urban poor in governance and decision-making, and could form the basis for promoting and implementing resilience-building initiatives.

Responding to COVID-19. Many of the responses to the COVID-19 outbreak required voluntary compliance by citizens, which could only be achieved through effective, accountable,

and trusted governance systems. The barangay, the lowest administrative unit in the Philippines, has been crucial in the delivery of COVID-19 response and enforcement of measures to curb local transmission.

3. Strengthening Governance for Building Resilience of the Urban Poor

Governance mechanisms appear sufficient on paper but could be more effectively realized in practice. The existing frameworks of decentralized governance in the Philippines provide a solid basis for local action that highlights local needs. Ensuring that the resilience of the urban poor is appropriately prioritized, however, will also require vertical and horizontal alignment across governance levels and working across administrative boundaries. Therefore, governance institutions need to facilitate and strengthen cross-boundary cooperation. Efforts must be made to address the limited administrative and fiscal capacity of LGUs by simplifying the complex mechanisms for intergovernmental fiscal transfers, raising awareness on the impact of climate change and of disaster-related responsibilities, and providing regular training in line with political cycles and realities, among other aspects. It would be useful to gauge the degree to which the e-governance and smart technologies can be employed to fill these gaps in capacity. These may include digital or artificial intelligence-enabled systems and processes (e.g., in education, fintech, risks mapping through remote sensing), skills training for the civil service in the use of big data, and artificial intelligence for decision-making and the use of technology-driven data collection and analysis tools.

Coordination between the key agencies (at national and local scales) with mandates that are necessary elements of building the resilience of the urban poor is a critical

governance consideration. Elevating the NDRRMC to a central coordinating body such as the Department of Disaster Resilience should help ensure a more efficient, coordinated, and integrated system for disaster management, encompassing risk assessment, emergency response, reintegration assistance, and rehabilitation. However, a similar mechanism to integrate responses to social development and CCA for the urban poor does not exist.

The continued integration of pandemic risk management and health emergency preparedness with the existing DRRM framework is necessary. Both national and local governments can benefit from a strengthened health system that is more equipped to quickly monitor and prevent transmission of viruses and improved capacities to treat severe cases and avoid loss of lives. The system must first address the needs of vulnerable groups such as the urban poor who are less able to thrive without help during a crisis. The country's laws define disaster risk as "potential disaster losses in lives, health status, livelihood, assets and services, which could occur in a particular community or a society over some specified future time period." However, protocols for pandemics fall under the inter-agency task force co-chaired by the Department of Health and the Cabinet Secretary and composed of various departments—not under NDRRMC. Although laws note that DRRM and CCA must be mainstreamed in development and land use planning, more can be done to integrate prevention and management of pandemics with the aid of urban planning and design. Integrating public health risk in the protocol can improve preparedness as both pandemics and disasters potentially bring about loss of lives, livelihoods, and assets, particularly among the poor.

A key issue that emerged multiple times in consultations with government agencies is

the need to achieve convergence of different programs and interventions that touch on resilience building of the urban poor, with the LGU being identified as the most effective level where this can take place. While different government departments can mainstream resilience building of the urban poor in their own programs, the challenge is delivering the programs at the local level in a coordinated and efficient manner. There is need to build on existing partnerships and initiatives (e.g., expand the priorities of the World Bank's Risk Resiliency and Sustainability Program, which already has criteria for budgets and investments, to focus on the urban poor).

Under the Local Government Code, space and mechanisms for encouraging participation in decision-making are not sufficient to ensure that this takes place routinely, fairly, and transparently. Clear, detailed guidelines and requirements are needed regarding NGO and community participation in decision-making and, crucially, implementation of programs across all relevant frameworks for community resilience to disasters and climate change. Such guidance exists from agencies including DILG and DSWD,¹⁸⁵ but there is still room for improved integration across climate, disaster, and local government frameworks. Opportunities, therefore, exist to build on and/or strengthen participatory governance processes that are already in place, including working with active CSOs that can help to connect informal and community-based processes with formal governance structures, and with the private sector to shape local economic activities and to support livelihoods. At the same time, the selection of CSOs and NGOs to engage in participatory governance processes should take into account their capacity to represent the various needs of the urban poor.



Climate, Hazard, and Poverty Data That Support Resilience of the Urban Poor

1. The Relevance of Data in Building Resilience of the Urban Poor

Having appropriate and reliable data both on climate and poverty is an essential enabling factor for building resilience of the urban poor.

The multidimensional nature of poverty, and the range of potential climate hazards and impacts, both need to be taken into account when planning and designing programs to build resilience. Particularly important is analysis that allows an understanding of the present and future distribution of vulnerabilities, hazards, and exposure, across a range of scales (from households, communities, and settlements) and within and across urban settlements and cities. As indicated in Chapter 2, there is a lack of comparative data on multidimensional poverty at the city level, and data on informal settler families vary from one source to another. Layered with climate data, which had not been downscaled beyond the provincial data, and with only selected hazard data available at the city level, disaggregation and empirical analysis become difficult. Mapping communities based on hazard and exposure, including socioeconomic determinants of risk, requires an understanding of production, supply, and distribution flows within local governments. Both technology and community-generated information have a significant role to play, with analysis that brings these together being particularly important. Government stakeholders consulted have identified the value that a single reference document bringing these elements together would provide in building the resilience of the urban poor. Overall, there is wide consensus that local governments should have granular, spatial data for decision-making and operations. In 2021, DOST-PAGASA produced provincial-level downscaled climate projections for the Philippines intended to inform investments

and improve adaptive capacities. Improved data strengthen analyses and the quality and credibility of proposed projects aimed at increasing the resilience of the urban poor, and thus can also enhance financing opportunities.

Integrating poverty and climate data is particularly important for targeting interventions that build resilience of the urban poor.

Not all the urban poor live in locations that are exposed to climate-related and other hazards, and the people living in the most exposed locations may not be the poorest urban residents. Risk mapping is an important approach for understanding these overlaps. At the city or municipal level, for example, a map showing the areas where typhoons more frequently make landfall (indicating the *hazard*) can be overlaid with maps that show population density (describing *exposure*) and poverty incidence (as one key indicator of *vulnerability*). The product of these elements would be maps identifying the most vulnerable neighborhoods. As cities face different hazards, a multi-hazard map is important for identifying vulnerable areas. A recent analysis shows that some cities have low to moderate exposure to flooding and liquefaction but have high exposure to rain-induced landslides, and these are cities with the highest poverty incidence (endnote 23). Data and maps on hazards, exposure, and vulnerability if overlaid can help to develop response plans to build the resilience of particularly vulnerable groups, including the urban poor.

Accessible geospatial data on poverty and health capacity can improve urban poor resilience. The country's experience during the COVID-19 pandemic calls for the availability and reporting of accurate data, for effective response and targeting of poor households as beneficiaries

of social amelioration programs. This requires cooperation among government agencies, with DOH in charge of overall coordination of testing, LGUs facilitating contact tracing and identifying other poor families, and DSWD as the source of *Listahanan* data for cash assistance to poor households. Since the *Listahanan* data were not updated, LGUs were tasked to identify other poor families within their jurisdiction. Not all LGUs, even in Metro Manila, have completed their Community-Based Monitoring System, which could have been an alternative source of information. Discrepancies in data resulted in either delayed release of cash assistance or no release at all. In an unfortunate case of a disaster event, an accurate beneficiary database and timely information sharing would be beneficial. Other information sources might include the DOH-Knowledge Management and Information Technology Service and the Health Facility Development Bureau. These data need to be accessible through an electronic information system, which should facilitate data sharing among LGUs while observing the policies of the Data Privacy Act. Satellite imagery and crowdsourced geospatial information have the potential to serve as valuable tools for the government in producing cost-effective, high-resolution, and real-time poverty mapping, as the World Food Programme performed in urban poor barangays in Metro Manila. As the majority of household surveys used to characterize the poverty situation in the country are only conducted intermittently, the use of these techniques may also fill critical data gaps in areas where the conduct of surveys may not be feasible.¹⁸⁶

2. Existing Provision and Current Gaps

The Philippines has a range of existing sources of climate information. DOST-PAGASA provides information on weather, floods, tropical cyclones, agriculture, regional forecasts, and astronomy. CCC and DILG are key entities for ensuring climate data and information as well as capacity-building

opportunities are available to LGUs. The University of the Philippines Resilience Institute (UPRI) also caters both to LGUs and the general public in providing georeferenced climate information. The UPRI's Nationwide Operational Assessment of Hazards program has made hazard maps and other information accessible and understandable to many. The work of UPRI goes beyond climate resilience, as evidenced by the recent map it made publicly available, indicating quarantine checkpoints to contain the spread of COVID-19.¹⁸⁷ In relation to other hazards, the Department of Science and Technology – Philippine Institute of Volcanology and Seismology (DOST-PHIVOLCS) provides information on volcano-related hazards or earthquakes that may affect urban poor areas.

Hazard and climate information to support the resilience of the urban poor needs to be made available at the relevant scale, and communicated effectively to relevant stakeholders. Specifically, this information needs to be accessible to LGUs and local CSOs with limited training and limited technology. It will need to take into account a wider range of potential hazards that may affect the urban poor (e.g., heavy rainfall). Uncertainty around climate projections also needs to be communicated clearly, so that development and project planners can make appropriate decisions based on an appropriate range of scenarios. There have been significant initiatives to make climate and hazard data more readily accessible. The most widely-known and accessible is the Hazard Hunter application developed by DOST,¹⁸⁸ which provides an indicative hazard assessment on the user's specified location. It aims to increase people's awareness of natural hazards and advocates the implementation of plans to prepare for and mitigate the effects of hazards. DOST-PAGASA makes its climate change projections available for download, and the administration's website and bulletins are also widely used and communicated across a range of channels, including social media. Higher education institutions play a role in this area as well: CCC currently supports this

through the Communities for Resilience (CORE) capacity-building program partnerships between local governments and academic institutions in developing LCCAPs. DHSUD also publishes climate and disaster risk assessment requirements in the supplemental guidelines for CLUPs, which includes identification of exposed areas.

The technical requirements of generating climate and disaster risk assessment data need to open up partnerships with state universities and colleges. The main stumbling block for sensitizing the CLUP, CDP, LDRRMP, LCCAP, and local shelter plan to impacts of climate and disaster risk is generating the risk information that indicate the location of the poor, their vulnerabilities, and the mitigation and adaptation actions to improve their resilience.

The Philippines has a range of existing sources of poverty information, many of which are accessible online:

- The PSA Annual Poverty Indicators Survey¹⁸⁹ has been conducted since 1998. Responses are used to come up with income and non-income poverty estimates for two income strata at the national level—the bottom 30% (used as a proxy for those falling below the poverty line) and the top 70%. Publicly accessible data, however, are not disaggregated according to urban and rural location, although PSA has published annual per capita food and poverty thresholds, by urban and rural classification.
- The Small Area Estimates released by PSA present poverty estimates at the city and municipal level.
- The Family Income and Expenditure Survey or FIES¹⁹⁰ is a nationwide survey administered by PSA every 3 years focused on assessing levels of living and income disparities among families at the regional level. It is one of the

sources of data for estimating the official poverty threshold and poverty incidence. With location (i.e., urban and rural) as one variable, raw data may be processed to produce data and information specific to urban areas. The survey includes poverty data for highly urbanized cities including annual per capita poverty threshold and poverty incidence, annual per capita food threshold and subsistence incidence, income gap, poverty gap, and severity of poverty.

- The National Household Targeting System for Poverty Reduction,¹⁹¹ also known as *Listahanan*, is used by DSWD to identify and locate the poor in both urban and rural areas. The third assessment targeted 16.1 million households in 42,000 barangays.
- The Social Welfare and Development Indicator is DSWD's primary monitoring tool for assessing the level of well-being of its program beneficiaries. The tool was designed to complement *Listahanan* and is supposed to be administered on an annual basis.
- The Community-Based Monitoring System (CBMS)¹⁹² generates information on multidimensional poverty from the level of the province down to the barangay and on the impact of national level policy reforms and shocks at the local level. The CBMS was mandated by law in 2019, and has been used by LGUs to identify poverty areas in terms of health, nutrition, shelter, water and sanitation, basic education, income, and employment, among other indicators.
- Other georeferenced administrative data of LGUs such as the real property tax mapping give an indication of the vulnerability of housing stocks to climate and disaster impacts.

For poverty data to contribute effectively to building resilience, they need to take into

account a range of variables. Not all of the urban poor are equally vulnerable to hazards. Age, gender (including solo female parents), and disability are particular individual factors that shape vulnerability, while community factors such as housing quality, location, and exposure to hazards are also significant. The data also need to recognize changes over time: as urban populations grow, the distribution and numbers of the urban poor will also change. In addition, the flexibility of data collection schemes to include relevant variables representing the emerging issues impacting on poverty and resilience will be crucial for planning and decision-making.

Community-generated data can play an important role in supporting resilience of the urban poor.

Surveys that are undertaken by CBOs in low-income urban communities can collect data on controversial and sensitive issues because the questions are being asked by trusted residents or community leaders. The data collected can include information on housing and site conditions, including density, landownership, quality of housing, and experiences of natural hazards. At a more detailed level, information for every household in a community can be enumerated. This detailed information is a valuable resource for planning and designing projects, precisely because it is able to cover issues that higher-level and externally led surveys are unable to address. The Homeless People's Federation of the Philippines has chapters in 25 cities across the country which have collected this type of data.¹⁹³

3. Strengthening the Climate Data for Building Resilience of the Urban Poor

A range of specific interventions could contribute to better climate and poverty data that support building the resilience of the urban poor. These might include the following:

- Establishing integrated knowledge management systems to serve as a platform

for sharing, managing, and reporting climate data across different scales and on different types of hazards. This will require ensuring a wider range of data available on urban poverty in georeferenced form, with a higher level of granularity than at present, and in a condition that enables integration into larger databases utilized at national and local levels. While income-based measures of poverty are easily comparable, the factors driving risk and resilience of the urban poor vary by location. The ability to overlay concentrations of poor-quality housing with areas exposed to hazards, or the ability to identify pockets of reliance on particular vulnerable livelihoods, will aid in the geographical targeting of responses.

- Ensuring the sharing of information across administrative boundaries and strengthening compatibility between data systems. This means that information that currently is primarily accessible and used within one administrative unit (either geographical or departmental) can be used to support activities by other units as needed. Where memorandums of understanding are required to access data, the process should be clear and straightforward, and should be directed to be used for designing and improving programs, projects, and activities with appropriate capacity support to agencies that may not have prior experience of these. For example, city health office data under the supervision of the LGUs have to be consistent with those coming from private hospitals within their respective jurisdiction, as well as with DOH at the national level as experienced in contact tracing and reporting COVID-19 cases. This will require the formulation of appropriate climate and poverty data reporting standards and/or guidelines. An additional issue that needs to be navigated is the country's Data Privacy Act, which may hinder the sharing of certain kinds of information (particularly

non-anonymized and granular household level data).

- Providing information that is specifically targeted at the urban poor, and supports them in making positive decisions to strengthen their resilience. The government currently has climate and disaster information communication protocols for general use, although these cover a broader range of issues that are particularly relevant for the urban poor. For example, current protocols often focus on typhoons and earthquakes, whereas additional issues that might be covered include fire, poor sanitation, and waterlogging.
- Using a range of data available to support building the resilience of the urban poor effectively and appropriately as an important step in this process. Data to inform policy decisions need to be reliable and accurate, and to be updated to reflect changing circumstances. One particular challenge will be to ensure that this comprehensiveness is balanced with accessibility to stakeholders who will need to use this information to inform decisions on policies and projects.
- Collaborating with the private sector to ensure that big data approaches that rely on

new technology are employed for acquiring and analyzing data on risk and resilience which are accessible and ready to be used for planning and decision-making. The limited capacity to collect and analyze data has been evident during the COVID-19 pandemic, with government institutions having been unable to acquire a dynamic and real-time understanding of the spread of the disease. These data could have been generated and used more effectively for decision-making through meaningful partnerships with the private sector, both commercial and research groups.

- As outlined above, undertaking capacity development in collecting, reporting, and analyzing climate and poverty data needs to be expanded to reach all relevant stakeholders.
- Harmonizing various sources of data is important, starting with household data collected by national government agencies (e.g., *Listahanan*) and the surveys initiated by local governments such as CBMS, and climate and exposure databases (e.g., ClimEx.db, Climate Information Risk Analysis Matrix [CLIRAM], and Climate Extremes Risk Analysis Matrix [CERAM]) used in climate and disaster risk assessments.



Climate Finance

1. The Relevance of Climate Finance in Building Resilience of the Urban Poor

Building resilience of the urban poor will require additional and refocused finance.

Although many existing programs and activities already contribute to strengthening the resilience of the urban poor, the extent of the challenge means that additional resources will be required. Effectively supporting the resilience of the urban poor will require financing from a range of sources,

delivered by a range of institutions using a range of instruments and complementary approaches, based on good evidence, and monitored and delivered at appropriate volume, subsidiarity, and scale. Financing for urban resilience needs to be identified, stimulated, secured, and sustained for impact, both in individual interventions and also across an ecosystem of urban resilience financing.

Building resilience of the urban poor will require finance that works explicitly at the appropriate scale. It requires actions at the scale of the household, the community, and the city, and these actions will require different types of finance. Financing mechanisms are also needed that bridge different scales, for example, linking community drainage (which can largely be implemented by community members) with trunk infrastructure (which requires larger investment and more advanced technical skills). Working with government agencies that work closely with the urban poor, as well as community-level groups in low-income urban neighborhoods, can help to ensure funds are spent appropriately (i.e., on necessary activities) and effectively (i.e., achieving value for money). Low-income urban communities with established savings groups often have higher levels of financial literacy and may already have collective financial management structures in place.

Direct access to climate finance for the urban poor. Some of this finance has to directly reach low-income households in order to contribute to resilient livelihoods and assets (including housing). Some also need to reach organized community groups as a means of strengthening community infrastructure. Direct access to finance in the form of community and block grants can ensure priorities of the urban poor are factored in local planning and accountability for urban poor communities. CSOs and organized urban poor groups would be crucial in facilitating this. However, this will require strengthening the capacity of local governments, in consultation with the urban poor, to identify climate change solutions, seek and apply for

financing, address absorptive capacity issues, and manage finances to fund priorities. Similarly, finances that are generated by and/or allocated to local governments will be most effective if these LGUs have the appropriate political will and technical capacity to use these funds in building the resilience of the urban poor.

Various mechanisms exist that can effectively generate finance at the urban scale to build resilience of 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:¹⁹⁴

- **Raising finance.** National governments can support municipal governments in raising finance for investing in urban infrastructure. Examples include increased local revenue-raising powers such as property taxation and leveraging private capital through municipal debt financing. National finance ministries can provide funds in the form of fiscal transfers or from international finance institutions such as multilateral development banks.
- **Steering finance.** National governments can also create the market and enabling conditions to steer private investment into more sustainable urban infrastructure. Examples include tax and other pricing mechanisms, regulations, and standards.
- **Blending finance.** Finally, national governments and relevant international bodies can blend finance by using public finances, first loss, guarantees, and other instruments to attract private capital into revenue-generating infrastructure assets or debt financing.

Climate finance offers significant potential for building pathways to urban resilience. Climate finance continues to lack an internationally

agreed definition, but is generally understood as resources mobilized to fund actions that mitigate or adapt to climate change. However, it is generally agreed that the quantity of climate finance available is not commensurate to the level of need,¹⁹⁵ and that available funds from global climate finance have often been targeted more at climate change mitigation than at adaptation (a situation highlighted in stakeholder interviews, although national funds invest significantly in disaster risk reduction and climate change adaptation). There is also confusion about the types of activities that should be eligible for climate finance. This is particularly relevant when there is significant overlap between “development” and “adaptation” needs (as in the case of building urban resilience). Climate finance can therefore contribute to, but is unlikely to be sufficient for, building the resilience of the urban poor.

2. Existing Provision and Current Gaps

Fiscal decentralization is a critical and essential component in the decentralization process, and is vital for building community resilience to disaster and climate risks. At the national level, the Philippines stands out as a country that raises significant amount of funding domestically, mainly from the 20% Development Fund and the Local Disaster Risk Reduction and Management Fund (LDRRMF). The two funds lack a harmonized budgeting system, and budget allocations are inefficient. The utilization of these funds is for eligible projects prescribed by the national government. More broadly, LGUs are expected to receive a significantly higher internal revenue allotment from fiscal year 2022 onward, as a result of a ruling that expanded the base computation to include all national taxes (encompassing National Internal Revenue Tax and customs duties), which provides higher fiscal transfers for previously unfunded mandates, as previously mentioned..

Between 2009 and 2011, the government allocated approximately \$2.4 billion for disaster risk reduction.¹⁹⁶ However, the data further show that the majority of this funding was used for disaster response, and very little was allocated for preparedness (e.g., policy and planning), which is critical for building effective resilience, for which approximately \$667.6 million was dedicated. The use of funds for prevention and mitigation needs to be stepped up.¹⁹⁷

The Philippines has already accessed substantial climate finance, although little has contributed to building resilience of the urban poor.

Between 2015 and 2018, the multilateral development banks supporting the Philippines provided a total of \$1.967 billion worth of climate finance.¹⁹⁸ The country also had a climate finance readiness program (2013–2016), which included readiness to spend effectively and efficiently at both national and subnational levels. Several municipal governments have received funding from global climate finance: Tuguegarao City and Legazpi City have participated in a Green Climate Fund project for multi-hazard impact-based forecasting; the bus rapid transit system in Cebu City was partially funded through the Climate Impact Fund; and Quezon City has received funding for solar rooftops in public schools through the C40 Cities Finance Facility. Although existing climate finance activities do not directly address the resilience of the urban poor, the capacity to manage climate finance—both at national and local levels—could be harnessed to access these funds in ways that achieve this goal. The bus system in Cebu included a resettlement component for low-income groups, and the Green Climate Fund project is intended to strengthen long-term climate risk reduction and adaptation, which will benefit the poor, including in urban areas.¹⁹⁹ The process of climate change expenditure tagging, required by Local Budget Memorandum No. 70 (June 2015), helps to identify where spending on this is already taking place and where gaps might exist.

The People's Survival Fund (PSF) demonstrates many features that can respond to priorities of urban resilience.

Republic Act No. 10174 established the PSF in 2012 as a special fund dedicated to financing local adaptation projects based on the National Strategic Framework for Climate Change and the National Climate Change Action Plan. Sourced domestically, it aims to raise annually the equivalent of \$19.5 million. This fund is intended for LGUs and accredited community organizations to implement CCA projects on activities including water resources management, land management, agriculture and fisheries, and health. The fund primarily focuses on the rural poor and has had low disbursement rates, often linked with the low capacity of municipalities in need to package effective funding proposals and a delay in setting up the fund to be operational. A similar fund to build the resilience of the urban poor will need to be developed in such a way that the municipalities and communities most in need are able to access it. This may require access modalities for different classes of municipality that have different needs and varying levels of financial management capacity.

Domestic sources of finance and public-private partnership (PPP) can also contribute to building resilience of the urban poor.

A wide range of mechanisms exist that can assist with this: city government funds (local sources), national to local fiscal transfers including tax allotments, performance challenge funds, specific climate change adaptation and disaster risk reduction funds, loans from government financial institutions, development finance institutions, commercial and savings banks, credit guarantees, capital markets through financial institutions and other financing tools, and PPP arrangements. For example, PPP has been used in improving and expanding general hospitals across Metro Manila to increase the access of the urban poor to health services. The Government of the Philippines also has specific policies and strategies to promote the mobilization of public and private sources of climate finance,

including (i) the Climate Public Expenditure and Institutional Review; (ii) the Program Budget Approach that constitutes overall climate change expenditure; and (iii) specific green financial products from various government financial institutions. However, these have not yet been widely used on activities that specifically target the resilience of the urban poor, though some can benefit low-income families capable of accessing housing finance products.

Innovations in public sector fiscal management can facilitate LGU access to climate finance.

An example is the climate change budget and expenditure tagging (CCET) initiative of the Department of Budget and Management and DOF. The budget tagging exercise, especially at the LGU level, demonstrates the planning and budget link, making transparent how LGUs budget and spend for climate change-related initiatives. Through the CCET, LGUs are able to show fiscal capacity and provide an opportunity to leverage public finance with other sources of climate change financing.²⁰⁰

“Blending” of different finance streams has the potential to generate significant positive impacts.

“Blended” funds are a well-established approach to funding local development in low-income urban neighborhoods. These draw on multiple sources (including community savings, local and national governments, development partners, impact investors, and the private sector) to address the specific needs of low-income groups. While private sector investment can have a role, often the situation of the urban poor is too risky for this to be feasible without additional funds that can help to “de-risk” the investment, to which blended funds can also contribute. Government and development partners also play a critical role as guarantors during the early stages of projects, including creating the conditions for improved returns on investment during implementation at later stages.

A range of fiscal resources for LGUs have been added or adjusted during the COVID-19 pandemic.

A Joint Memorandum Circular (dated 27 March 2020) between DILG and the Department of Budget and Management allowed LGUs to utilize their 20% Development Fund for COVID-19-related expenses, in addition to what was previously prescribed. Among the additional expense items that are currently allowed are procurement of personal protective equipment; procurement of equipment, reagents, and kits for COVID-19 testing; and food assistance and other relief goods for affected households. A further Joint Memorandum Circular is being proposed to expand the provisions. The pandemic also created challenges to the education sector through disrupting conventional face-to-face learning. Joint Memorandum Circular No. 2 Series of 2020 between DILG, the Department of Budget and Management, and the Department of Education provided LGUs additional expense items that can be charged against the Special Education Fund in connection with supporting remote learning (including printing, ICT, and personal protective equipment). Finally, the Bayanihan to Recover as One Act (Republic Act No. 11494) allowed the local chief executives of all LGUs to realign their local funds (not limited to their Development Fund, Gender and Development Fund, Sangguniang Kabataan Fund, and Special Education Fund), including unutilized or unreleased subsidies and transfers, in order to address the COVID-19 pandemic.

3. Strengthening Climate Finance for Building Resilience of the Urban Poor

Programs to build resilience of the urban poor should draw on a range of sources of funding (international, national, and local), and blend them in an appropriate fashion (which will vary depending on sector and on the stage of project implementation).

A significant proportion of the financial resources of local authorities should derive

from local taxes, fees, and charges to cover at least part of the costs of the services they need to provide. However, some investments in the resilience of the urban poor will involve transfers (grants, subventions) from other levels of government in order to top up local budgets. To avoid leaving any city or municipality behind, equalization mechanisms should guarantee that all territories and cities have the means to build the resilience of the poor within their boundaries.

Efforts must be made to close the gap for access to basic services by unlocking untapped revenue potentials. Approximately 40% of revenues of cities come from the internal revenue allotment, a block grant from the national government internal revenue collections, which is unpredictable depending on collection performance.²⁰¹ With COVID-19, revenue collection targets have been downscaled, which will affect internal revenue allotment shares in 2023.²⁰² LGU revenues from own sources are unpredictable as well due to the economic impact of community quarantines on local businesses.

Cities would need help to increase their capacity to generate their own revenue streams and access other external sources of receipts for development, such as credit financing, bonds flotation, and PPP arrangements. Cities must work out barriers to direct access to official development assistance, as such loans have longer repayment periods at concessional rates.²⁰³ To prepare for disasters, the legal framework for risk financing must be clarified. ADB introduced disaster risk financing to Davao and Marikina City through a technical assistance from 2012 to 2014.²⁰⁴ The barriers then were clarifying the role of the Government Service Insurance System as the risk insurance provider, the need for authorization on the use of their LDRRMF for payment of premiums, and a mechanism on the budgeting and utilization of potential payout. In 2018, the Philippine City

Disaster Insurance Pool involving 10 cities was developed under another technical assistance from ADB, which resolved the issues in the previous technical assistance.²⁰⁵

With the challenges surrounding service delivery and financing gaps, LGUs have explored PPP arrangements to provide for electricity and water supply, municipal enterprise such as public markets and slaughterhouses, city hall, ICT, ferry terminal, septage management, landfill, and socialized housing. While LGUs were keen on pursuing PPP arrangements, not all proposals reached implementation due to lack of technical and financial resources for project preparation, monitoring, and implementation. Recently, the PPP Center strengthened its technical assistance to LGUs to generate a pipeline of viable and climate-resilient projects.²⁰⁶ Several development partners contributed to the Project Development and Monitoring Facility, which the PPP Center uses to provide prefeasibility technical assistance and advisory services to LGUs. The Local Infrastructure Development Agenda lists eligible urban sector projects: water supply and sanitation, solid waste management, education, health and housing facilities, municipal enterprises, etc. Still, uptake is slow with fewer than 20 LGUs that have projects at different stages of development, evaluation, procurement, preconstruction, and construction.²⁰⁷ DOH is already piloting a blended financing output-based aid program for household sanitation. The Municipal Development Fund Office–Second Generation Fund also has a PPP financing window, which was opened to also support LGU financing needs in engaging in a PPP scheme for transportation, power, sanitation, water, education, and tourism.

A precondition for climate finance is a needs analysis, which can also take into account learning from existing experiences on accessing climate finance, and the application of this

expertise to managing funds that explicitly address the resilience of the urban poor. This will require enhancing direct access modalities that prioritize government financial institutions (i.e., development banks) and the local private sector, and investing in the readiness of such institutions. DOF and CCC play an important role in this as the climate finance focal points for the Philippines, including in directing appropriate resources to building the resilience of the urban poor. Finally, a tracking system should be implemented for climate finance, which can complement the existing tracking of climate change expenditure. Investment and financial planning should incorporate participatory age- and gender-responsive approaches. This can be achieved through broad-based and well-resourced permanent mechanisms and platforms for cooperation and consultation open to all, using ICT and accessible data solutions. In particular, this should include working with low-income urban communities that have established savings groups. These communities often have higher levels of financial literacy and may already have collective financial management structures in place that enable them to be effective partners and implementing agents for funded projects. Microfinance organizations, institutional funders and private philanthropists intending to contribute to climate change efforts and the welfare of the urban poor could be a good place to begin, given their existing structures and operations in the Philippines.

Financial modalities should be available that are accessible to the appropriate groups: whether for different classes of municipality or for NGOs with different levels of capacity. Different institutional settings have different levels of financial capability, and are therefore better suited to managing and utilizing different types of finance.

Strategic partnerships—including between the government and the private sector—are

required to provide finance that addresses the resilience of the urban poor. These partnerships could help to enable improved LGU and CSO access to credit and climate finance options. They could also assist in training existing NGOs and CSOs working with the urban poor on financial management. Corporate and family foundations of various companies that are already involved in helping the poor on various sectors in cooperation with LGUs can be tapped for this initiative.

The government should assist municipalities in preparing and packaging funding proposals. Assistance to LGUs in urban areas to have access to this kind of funding should also be considered. Current initiatives of DOF, such as the Municipal Development Fund Office, and others supported by development partners such as the Cities Development Initiative for Asia can be scaled up.²⁰⁸

Combined climate and social financing for urban poor resilience should be considered. Private domestic banks have issued COVID-19 bonds to benefit MSMEs together with previous green bond issuances for city-level CCA initiatives. The national government also issued “*progreso*” bonds to support health initiatives to respond and recover from COVID-19 especially for MSMEs and repatriated workers who slid into poverty due to job loss. The “*progreso*” bond is a retail bond that can be purchased via mobile phone even by non-banked individuals, increasing financial inclusion. More similar programs can be targeted at the urban poor. The United Nations Development Programme Climate Finance Network, which supports the Philippines, for instance, focuses on climate finance that address gender and social benefits at the national and subnational levels. This model may be adopted to specifically benefit the urban poor.

Building Resilience of the Urban Poor in the Context of COVID-19

There are synergies between resilience to COVID-19 and climate change. As poverty is multidimensional in nature, and ensuring resilience to climate change would also require a multidimensional approach to address the basic needs and services of the urban poor, similar measures could be pursued to reduce vulnerability from exposure to COVID-19. The challenge immediately provides an opportunity to address two adverse situations with one solution—one with several co-benefits. At the household level, improving incomes and livelihoods increases the urban poor’s purchasing power for food and medicines as well as access to savings for future homeownership. At the institutional

level, pandemic preparedness can be similar to disaster preparedness as increased resilience can be addressed by improving the capacity of the health system through better processes and infrastructure. In that manner, more patients can be accommodated, whether due to a typhoon, an earthquake, or a virus. Increased social protection for vulnerable groups allows them to access health care when a crisis occurs. The continuous provision of basic urban services and the urban poor population’s access to such services also makes them more prepared for a disaster or pandemic. An example would be the steady supply of clean water for drinking and handwashing.

Although COVID-19 affects everyone, the initial urban poor-focused responses of LGUs in the short term also show that it impacts various segments of society disproportionately. Despite efforts to assist the vulnerable through a range of different sector initiatives, more effort is necessary to holistically address the needs of marginalized populations—the urban poor and also the near poor—so they will not slide into poverty due to socioeconomic stresses brought about by the pandemic. If such interventions are not sustained or intensified, such inequalities and vulnerabilities may worsen, especially when coupled with climate impacts that, if unmanaged, can result in disasters.

LGUs have been the key operational actor to address constituents' needs, especially the urban poor who have been the most vulnerable. Barangay health workers and health emergency response teams monitored the community by visiting suspected and probable infected individuals at home. Although the police are tasked to enforce lockdowns through checkpoints, travel pass issuance, and other means, the barangay helped containment by issuing and monitoring the non-government-required quarantine passes. Together with the City Council, which enacts ordinances to facilitate LGU action, and the various offices of the city government (e.g., city health office, public employment service office), LGUs in Metro Manila responded to the needs of their constituents through a range of permitted initiatives. LGUs had the authority and political power to aggregate support from different sectors and knew who and where those in most need are. LGUs responded with a range of health and socioeconomic measures to curb local transmission of COVID-19. Some responses were unique to the city, some inspired by other LGUs, and others with the help of other stakeholders from the private and nongovernment sectors.

Cities need to be better prepared in dealing with potential complex emergencies from combined health and disaster events.

The COVID-19 pandemic has raised new issues that need to be accounted for in policy efforts to build the resilience of the urban poor. The urban poor are most affected given their living spaces, sources of income, and poor access to water, sanitation, and health services. While it is in the mandate of cities to prepare and respond to health emergencies, most cities do not have a contingency plan for this type of event. Most cities faced new responsibilities, such as disease surveillance other than those from seasonal diseases like leptospirosis and dengue; robust health services including human resources; uninterrupted supply of food, medicine, and other essentials; and social amelioration in the form of cash assistance. They also have to prepare for additional evacuation centers given the physical distancing needs and equip all evacuation centers with water and sanitation facilities to conform with health standards. Cities also need to invest in e-governance to upgrade government services, including tax collection, by providing the platform for remote transactions. Also, cities need to invest in reliable household data, especially for those living in both formal and informal settlements where hidden or unaccounted households possibly exist. This would facilitate transparency in social protection programs. While most disaster risk management programs focus on building government capacity or reducing risks to vulnerable populations, it is important to collaborate with the private sector to harness their networks, outreach, and resources in support of urban resilience. Governments need to recognize that small-scale private sector activities (e.g., home-based cottage industries) provide an important safety net to the urban poor in crises such as these, and that they must be supported and strengthened. Overall, priorities for enabling effective control of COVID-19 and similar diseases will include collaborating with local residents (who have unsurpassed knowledge of relevant spatial and social infrastructure), strengthening coordination with local governments, and investing in improved data for monitoring the response in informal settlements.²⁰⁹

Entry Points for Building Resilience

Chapter

7



Strategic Entry Points to Build Resilience

Chapter 5 of this report identifies the main strategic policy areas that can contribute to building the resilience of the urban poor, and Chapter 6 discusses the main enabling factors that need to be in place for interventions to be successful. While they focus on what can be done to build resilience of the urban poor, this was primarily at the level of principles that need to be followed. This last chapter proposes programmatic entry points that take a more crosscutting and integrative approach, based on the analysis (reflected in the conceptual framework) that building the resilience of the urban poor requires simultaneous and coordinated interventions across policy areas and scales. Integral to this is the need to enhance the capacity of LGUs in all aspects of building resilience, such as policy, capacity, technology, finance, partnerships, and a monitoring and evaluation system for continuing assessments of resilience needs and approaches.

The section proposes a program of investments that will be most effective if managed in a coordinated manner, but that have the potential to be designed and implemented independently. They provide the basis for developing targeted investment projects,

and for developing the necessary skills to use climate change and risk information to make decisions under uncertainty. In each case, further detailed analysis will be required before implementation. These fall into seven discrete categories: institutional mechanisms; new financial mechanisms for building resilience; data and evidence; the health dimensions of resilience; livelihood capacity and opportunities; resilient social protection; and construction of more resilient housing and communities. They will all require a mixture of new institutional arrangements, expanded institutional commitments, and coordination across a range of geographical boundaries and policy mandates. They will also require responsive leadership and governance at multiple scales: leaders must be inspired to incorporate the resilience of the urban poor into their own personal vision and mission and to embrace their own responsibility over systemic urban resilience challenges.

While many of the recommendations are informed by an overarching review of the information presented in the report, links are identified to specific elements of the analysis, where appropriate.



Establish Institutional Mechanisms to Support the Resilience of the Urban Poor

The analysis presented in this report highlights the need for integration and coordination across policy areas and scales, while ensuring that national and local responses are nuanced and synchronized. Tackling different vulnerabilities to build the resilience of the urban poor will need to be resolved in an integrated manner with multiple interventions. For example, as the recent policy note from the Philippine Institute for Development Studies characterizes, tackling vulnerabilities are carried out through social protection to address longer-term vulnerabilities, disaster risk reduction to reduce damages caused by natural hazards, and climate change adaptation to address changing distribution of extreme climatic events.²¹⁰

Further analysis will be required to assess the effectiveness of existing institutional and coordination mechanisms and to determine the precise gaps that need to be addressed. Many elements are already being addressed at the national level by institutions including the Presidential Commission for the Urban Poor (PCUP), the Department of Human Settlements and Urban Development (DHSUD), the Climate Change Commission (CCC), the National Anti-Poverty Commission (NAPC), the National Disaster Risk Reduction and Management Council (NDRRMC), and the Department of the Interior and Local Government (DILG). Various convergence mechanisms also exist already, including the Cabinet Clusters on Climate Change Adaptation and Mitigation and Disaster Risk Reduction (CCAM-DRR) and Human Development and Poverty Reduction.

However, these institutions currently focus primarily on poverty or on disaster risk and

climate change adaptation: the tripartite combination of urban, poverty, and resilience does not currently exist.²¹¹ Addressing this will require either additional elements to the existing mandates of institutions or the creation of a new light-touch coordinating mechanism to bring the strengths of different departments together.

A substantial and integrated approach in the Philippines will therefore require new institutional mechanisms to enable this. It will require the following institutional functions:

- Coordinating mandates across agencies, both national and local government units, to identify existing programs that contribute to building the resilience of the urban poor and ensure that these are harmonized and complementary.
- Identifying gaps that can be filled by existing agencies, both national and local government units, and providing guidance to respond to these through expansion and improvement of programming.
- Identifying data needs and coordinating data accessibility to inform projects and programs.
- Developing or sourcing project proposals that align to the requirements and priorities of potential funding agencies and supporting the development of capacity in this area.
- Identifying communities that are already organized and registered with the Presidential Commission for the Urban Poor for targeted technical support, while providing organizational support to communities that

are not yet registered (e.g., through training community mobilizers).

- Improving the governance structure to encourage the diverse representatives of the urban poor and NGOs working with the urban poor to participate and provide suggestions on different aspects of urban poverty and vulnerability, including health, housing, and gender.
- Developing mechanisms for sharing information more effectively to the urban poor, for example drawing on the approach used in the Family Development Sessions

module or more informal and accessible means such as social media.

- Strengthening cross-boundary and metro-area cooperation to increase the resilience of the urban poor through enhanced cooperation in planning and in the implementation of sector-specific projects.
- Creating or supporting the specific and specialized tasks identified later in this section (around finance, data, health, social protection, and household and community infrastructure).



Create Financial Mechanisms to Support the Resilience of the Urban Poor

While much can be done to build the resilience of the urban poor through the use of existing resources, additional funds will also be required. A special purpose fund should be considered to provide the resources that are necessary for the activities outlined earlier, with particular incentives for projects that integrate different policy areas and scales. This could be managed by the institutional mechanism discussed earlier (whether a new or agency or through an expanded mandate), or through a parallel financial structure. Key elements for an “Urban Poor Resilience Fund” might include the following:

- Funding LGUs, particularly ones with limited resources, to invest in protective actions and infrastructure in responding to priority needs that have been identified through participatory planning processes.
- Directly funding community organizations to support community planning for resilience building and to construct risk-reducing community infrastructure. This could be particularly beneficial if it is linked with existing processes of community savings and community mobilization.
- Directly funding (loans or grants) households through microfinance institutions for investment in risk reduction, for example through improving the quality of houses to meet appropriate minimum standards. Criteria for funding to include income level, as well as risks and vulnerability to natural hazards and climate change.
- Providing forecast-based financing in anticipation of expected shocks and stresses, including for slow-onset disasters.

- Exploring alternative and innovative finance modalities such as housing microfinance and housing cooperatives that help the poor transform toward resilient dwellings. This will prevent the government to continuously provide relief and response operations.
- Developing the capacity of national, regional, and local government units to integrate the results of climate risk assessment in planning and investment programming exercises.
- Possibly allowing private sector developers to implement carefully screened housing projects that build the resilience of the urban poor, which can be credited as their 15%–20% socialized housing requirement. This can be complemented with other incentives such as tax breaks for developers of social housing for the ultra-poor.
- Institutionalizing a reward system or subsidy (funding for housing) for LGUs that identify and acquire land for building disaster-resilient socialized housing for the urban poor. Alternatively, incentives can be given to the private sector to give up or make their land available affordably to government for housing resettlement purposes.
- Creating alternative financing instruments such as green and social bonds issued by national and/or local governments, and tapping a number of private commercial banks to potentially augment traditional funding to address the resilience of the urban poor.



Make Available Data and Evidence for Building Resilience

One of the most consistently expressed requests from consultations undertaken during the preparation of this report was the need for better data and evidence to support programs that build the resilience of the urban poor. Data collected at the different scales—national, city, community, and household—serve specific purposes. Poverty and vulnerability data at the household and community scales are most useful for targeting specific resilience-building interventions at both scales. At the neighborhood scale, community characteristics that drive vulnerability (particularly the overall population characteristics) can be assessed alongside hazards and climate risk projections to identify neighborhood-scale interventions (including community infrastructure that can

be undertaken through community-driven development and similar approaches). It can also include poverty and housing data, drawing on existing surveys and employing community participation through mapping and validation. Data at the household scale, such as those collected through the Community-Based Monitoring System (CBMS) can enable more precise targeting of individuals who are particularly vulnerable (e.g., older persons, single-parent households, and people with disabilities or preexisting health conditions). As climate hazards and impacts are geographically variable and very localized even within cities, household-level scales can be helpful. City-level data will be able to inform local government investment

decision-making, as well as policy and program development and implementation. Climate-informed poverty reduction policies at the city or local government level will benefit from better data on the nature and location of climate hazards and impacts. Science-based decision-making relies on robust and granular data that are ideally reflected in a range of local plans, such as on disaster risk reduction and management, climate change adaptation, and shelter. National-level data can be the basis for investment planning, budgeting, and policy formulation. Recognizing the multidimensional nature of poverty, data on the 13 dimensions of poverty in the Philippines' Multidimensional Poverty Index (MPI) will enable the identification of dimensions of poverty where the biggest shortfalls exist and thereby inform investment and budget priorities.

Given data gathering and reporting needs at different scales, consistency is paramount. For example, the COVID-19 pandemic has highlighted inconsistencies in infection rates at the barangay or neighborhood, city, and national levels. Transboundary sharing of information across public and private health-care providers would have also benefited from consistent parameters. Data issues also extend to pandemic-induced socioeconomic vulnerabilities. The pandemic has also highlighted the vulnerability of the healthy but poor city dwellers, as well as informal workers and newly unemployed for better targeted fiscal stimulus and social protection packages.

The specific skills and resources required for robust and reliable data collection, analysis, and application mean that this function is best hosted within an existing institution with the necessary technical capacity and facilities. This could result in the creation of a single reference database on the socio-climate risk vulnerability for urban areas to identify the urban poor who face particular risks from disasters and climate change.

Specific data and evidence-generating activities may include the following:

- Collating existing data in an accessible and georeferenced form (including social, demographic, and hazard data), enabling overlays of different data types to highlight particular resilience needs of the urban poor, such as locating areas that are likely to experience extreme urban heat island effects in an urban poor neighborhood. As land use maps show the different uses or purposes of land and are the basis of zoning categories in an LGU, overlaying a climate hazard map can further reveal specific areas where critical infrastructures are located or where key economic activities occur which are also exposed to hazards. Identifying which areas of the LGU are more vulnerable than others as regards its daily functions will help it prepare, especially by addressing the needs of the urban poor in times of shocks and stresses.
- Expanding data collection to cover additional social characteristics and hazards. Building the resilience of the urban poor requires identifying the “near poor” who could be forced into poverty as a result of disasters and climate change. It will also require coverage of a wider range of hazards and a better understanding of climate trends and future projections.
- Reviewing and standardizing indicators in determining eligibility for targeted interventions taking into account multidimensional forms of deprivation.
- Using participatory and community-based processes to generate data where appropriate by respecting the autonomy of respective processes based on long-established relationships of trust within communities. This can build on existing community-based data collection and

mapping and could support their expansion into new locations.

- Developing appropriate frameworks and a set of meaningful categories for more effective planning by reflecting on the contextual differences of each individual location such as a city or a municipality, to resolve the issues. This could take into account issues such as density, population change, current hazards, or projected climate impacts.
- Presenting data in effective and accessible formats that can be used and customized by different agencies (both government and nongovernment organizations) to support the particular evidence required to build the resilience of the urban poor in

different settings. This can combine both technology-based and analog platforms to make data and information more accessible to different segments of society and types of decision-makers. Ensuring data are accessible and understandable to the urban poor also empowers them to participate in consultation mechanisms and express their concerns and needs.

- Investing in a data collection and sharing platform that addresses the currently fragmented climate and poverty data at different scales, especially cities, to inform development planning, investment, and financing. Ideally, it can be used both by LGUs and national government agencies for their programs, projects, and activities.



Strengthen Individual Resilience of the Urban Poor: Addressing the Health Dimensions

It is increasingly apparent that health is an important component of the resilience of the urban poor. First, good health is a prerequisite for many other elements of resilience, including the ability to cope with short-term shocks and longer-term stresses, and the ability to pursue resilient livelihoods. Second, climate change is likely to increase health problems for the urban poor, particularly outdoor workers, women, children, older persons, and people with disabilities and existing health conditions. Understanding and addressing these conditions requires specialist knowledge, drawing on public health and epidemiology, as well as

on urban planning and social development. For this reason, specific interventions on health, resilience, and urban poverty are likely. These might include some or all of the following:

- Conducting detailed epidemiological research to understand the current vulnerabilities resulting from poor health, and future trends in relation to the underlying drivers of health and disease for the urban poor. This can be complemented with a health infrastructure and human resource mapping activity in urban areas, particularly cities.

- Undertaking additional research on the health-seeking behavior of the urban poor to support interventions that better reflect their approaches and needs.
- Focusing attention on the drivers of vulnerability for urban poor individuals, particularly women, children, older persons, and people with disabilities and existing health conditions.
- Understanding the linkages between working conditions (including occupational safety and health) and health in the context of climate change, particularly for outdoor workers and informal economy workers.
- Paying attention to the linkages between urban form, urban design, urban health, and the opportunities for harnessing co-benefits for climate change adaptation and mitigation, in particular attention on the urban poor as regards design of public spaces such as green and open spaces.
- Analyzing continued gaps in water and sanitation provision for the urban poor, particularly in cities and municipalities exposed to climate change impacts, and how these can be addressed in ways that contribute both to present-day health and longer-term resilience.



Increase Livelihood Capacity and Opportunities to Enhance Urban Poor Resilience

Livelihood is critical for building the resilience of the urban poor as it allows them to earn income and meet their basic needs and build assets to cushion the impacts of disasters and climate change. As their livelihoods are commonly informal and generate meager and unstable income, it is imperative to strengthen their livelihood capacity and increase their access to stable livelihoods. This requires understanding the impacts of climate change on their employment and livelihoods to be able to identify options and appropriate interventions. Strategies might include diversifying household livelihoods, making livelihoods adapt to changing climate, and increasing support to MSMEs that comprise 99.5% of total businesses in the country. Specific interventions may include the following:

- Increasing awareness of the urban poor on current and future impacts of climate change and disasters on their livelihoods to help identify options to sustain income, including required training and skills development.
- Scaling up labor-intensive and community-based public works programs to provide employment and livelihoods in urban areas particularly those exposed to natural hazards.
- Undertaking market analysis to identify value addition of products and services of the urban poor and insights into increasing sources of employment, which will inform the design of new livelihood programs and enhancement of existing ones.

- Supporting microfinance institutions in providing MSMEs and the urban poor access to finance to support livelihoods.
- Scaling up implementation of targeted support to MSMEs and workers, including provision of disaster risk insurance to MSMEs and microinsurance to workers, to help them recover from disasters and other related shocks (e.g., COVID-19 pandemic).
- Formulating a common livelihood framework that will guide government agencies in efforts to integrate into the urban economic system the livelihood interventions, such as those related to occupational health and safety, and protecting livelihood activities from climate and disaster risk.



Develop Resilient Social Protection for the Urban Poor

The social protection system in the Philippines already contributes substantially to the resilience of the urban poor. While there is an emerging understanding among social protection practitioners of “adaptive social protection,” there is potential for the country to lead in developing approaches to resilient social protection that specifically meet the needs of the urban poor. This might include the following:

- Incorporating climate considerations into urban social protection initiatives in the Philippines.
- Improving the contribution of social protection to urban resilience by designing transfer levels for urban areas which are of adequate duration and account for high living costs, individual and household needs, and inflation.
- Strengthening ex ante resilience by establishing links between urban social protection beneficiaries and other services.
- Capacitating urban local governments in planning, implementing, monitoring, and evaluating shock responsive and adaptive social protection.
- Enhancing *Listahanan* by incorporating climate and disaster risk assessments and harmonizing it with other data sources.
- Developing a supportive enabling environment to strengthen coordination and increase awareness on building urban poor resilience through social protection by collaborating with local actors, particularly local governments and community-based organizations.



Build More Resilient Households and Communities

The physical infrastructure to protect the urban poor from disasters and climate change is a significant element of their resilience. There is a significant housing backlog across the Philippines, with the urban poor being in particular need of safe housing. Housing, as well as tenure security, is an important entry point for improving other elements of resilience, including water and sanitation, and livelihoods. Resilient housing requires that the structures of homes are resilient to current and future hazards, and also that these homes are located on land that is not exposed to these hazards. Taken together, addressing these concerns can have negative consequences for the affordability of resilient housing for the urban poor.

Building more resilient households and communities will require coordination of efforts between urban land use planning, community- and city-scale infrastructure provision, and housing development. The mandate and powers of DHSUD give it a strong position to oversee this process, specific elements of which might include the following:

- Developing a standardized suite of designs for housing structures that are both resilient and affordable to the urban poor, guidance on effective retrofitting, and training of community builders in resilient design. This may require coordinating with the Department of Public Works and Highways and revisiting the national Green Building Code to ensure it is appropriate for the urban poor. Exploring low-cost, nature-based solutions may also help bring down costs. Development controls also need to meet the urban poor's immediate needs and housing affordability, while simultaneously building their resilience.
- Creating appropriate processes and safeguards for relocation (including for informal settler families) where this is necessary as a result of hazards (both existing and projected). Positive examples already exist, particularly in the case of infrastructure projects.²¹²
- Ensuring that housing finance (including provision of loans or grants) to the urban poor enables them to improve housing quality in ways that contribute to meeting their immediate needs (including livelihood generation), as well as longer-term resilience. This can include actively identifying alternative and innovative solutions to providing subsidies to the urban poor such as public rental housing; mixed-income, mixed-use housing; incremental housing programs; voucher-type subsidies; and access to housing microfinance products and programs.
- Using a wide-ranging approach to identify and acquire land that meets the locational needs of the urban poor and that is suitable for housing development (i.e., including detailed hazard mapping and climate risk projections). It also needs to take into account the issues of urban sprawl and of limiting the impact on agricultural land and forest areas. This may require coordination across administrative boundaries, as being practiced in *Oplan LIKAS*, if there are serious limitations to available land in particular locations. This may also require signing of memorandums of understanding between various government land-owning agencies to ensure land can be made available at an affordable cost and for sufficiently long leases for the urban poor.

- Institutionalizing a reward system or similar for LGUs that comply with inventory of lands, identification of lands, and land acquisition for the purpose of building disaster-resilient socialized housing for the urban poor.
- Actively involving the urban poor in the identification of land for housing developments, the requirements for housing, and the planning and design of neighborhoods in ways that build resilience. Harmonizing “people’s planning” processes with the procedures and policies of social housing programs. This should also draw on more systematic assessment and compilation of lessons from previous disasters—for example, that while relocation and the designation of no build or no occupancy zones in riverfront and coastal sites is a typical post-disaster planning response, it should only be considered as a last resort, especially if proper river and coastal management along with appropriate engineered and natural infrastructure are utilized.
- Providing technical assistance to relevant housing agencies to integrate urban poor resilience building into programs, policies, and shelter plans for operationalizing the National Informal Settlements Upgrading Strategy and the National Resettlement Policy Framework.
- Mainstreaming issues to explicitly enable guidance and planning that respond to disasters and climate change to address the needs of the urban poor. Positive steps have been taken to include disaster risk reduction in some policy areas for urban poverty (e.g., volume 4 of the CLUP guidebook).
- Actively involving the urban poor in the design and construction of community infrastructure projects, and ensuring that community infrastructure is integrated with citywide infrastructure (e.g., for drainage), for example through PCUP’s list of accredited community-based organizations.
- Expanding community-driven development programs in urban areas through investments in risk-reducing infrastructure and other community-identified projects.

Conclusion

This country diagnostic report has explained the drivers of risk for the urban poor in the Philippines and has developed a vision for resilience for this growing group of people. Building the resilience of the urban poor is a key issue for the future of the country. Without this, hard-won development goals could be lost; people will be unable to escape from poverty; the economic benefits of urbanization will not be achieved; and future hazards

(including those associated with climate change) will continue to erode assets and cause injuries and loss of life.

However, integrated and coordinated responses to the challenge at the different scales—household, community, and city—supported by appropriate enabling environment can generate considerable benefits. These will go beyond avoiding economic and human losses, but will

help to achieve the outcome of safe, inclusive, resilient, and sustainable communities and urban centers envisaged by the Sustainable Development Goals, as well as the goals of the Philippines *AmBisyon Natin 2040*.

The approach shown in this report demonstrates that this is possible. But it

will require considerable effort from a range of stakeholders. The Government of the Philippines has a central role to play at national, subnational, and local levels. However, its efficacy will be boosted through relevant inputs from development partners, as well as through the active engagement of citizens and nongovernment organizations.

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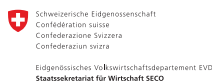
Building Resilience of the Urban Poor in the Philippines

Building the resilience of the urban poor is critical in the Philippines. Amidst the rapidly increasing urban population, and heightening climate and disaster risks compounded by the COVID-19 pandemic, the urban poor is most vulnerable to shocks and stresses due to their multiple deprivations—weakening their capacity to cope and adapt. High-density settlements are susceptible to the urban heat island effect, while low-lying or coastal urban areas are highly exposed to flooding and typhoons—disproportionately affecting the urban poor population. Failure to build the resilience to climate and disaster risks among the urban poor will have serious impacts not only on themselves but on the urban areas they are part of.

This report identifies pro-poor solutions across six priority policy areas and the enabling factors to build climate and disaster resilience of the urban poor. It proposes programmatic entry points that take a more crosscutting and integrative approach, taking into consideration that resilience-building requires simultaneous and coordinated interventions across policy areas and scales.

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