

NATIONAL URBAN DEVELOPMENT AND HOUSING FRAMEWORK

2017-2022



HOUSING AND LAND USE REGULATORY BOARD

National Urban Development and Housing Framework 2017-2022

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HOUSING AND LAND USE REGULATORY BOARD

UN HABITAT
FOR A BETTER URBAN FUTURE



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2017-2022



Manila, Philippines
2017



The Urban Development and Housing Act of 1992 (R.A. 7279) mandates the Housing and Land Use Regulatory Board (HLURB) to formulate a National Urban Development and Housing Framework under the direction of the Housing and Urban Development Coordinating Council (HUDCC) in coordination with all local government units and other concerned public and private sectors.

In the formulation of this new NUDHF (2017-2022), several cross-cutting concerns (e.g. climate change) were considered to make it more responsive to the prevailing urbanization issues and development opportunities as well as establishment of improved linkage or alignment to significant national plans for better coherence to vertical and horizontal spatial and multi-sectoral planning.

The creation of a Technical Working Group composed of representatives from concerned line agencies as well as consultations with experts and UN-Habitat peers made this framework more relevant to current and future optimistic urban scenarios.

We express our appreciation of UN-Habitat and the Philippine Institute of Environmental Planners for their unwavering technical support and of the Government of Spain and the Development Account Project for their financial support of this publication.



Attorney Lloyd Christopher A. Lao
Chief Executive Officer and Commissioner
Housing and Land Use Regulatory Board



HOUSING AND LAND USE REGULATORY BOARD



This latest revision of the National Urban Development and Housing Framework (NUDHF) is very timely for the national and local governments, urban planners and developers, and for all other sectors contributing to the growth of the country. With the challenges brought by rapid urbanization and as cities and municipalities progress and population grows, the need for careful planning has become an imperative to ensure that we not only make our cities sustainable, inclusive, and resilient, but that we also save precious urban and agricultural lands by developing compact communities and improving connectivity.

Envisioning better, greener, and smarter urban systems in a more inclusive Philippines, the new NUDHF underscores the indispensability and indivisibility of the different planning principles and strategies by integrating design and governance, climate change adaptation, people's participation and empowerment, protection and preservation of ecosystems, and other equally important dimensions of housing and urban development. Hence, the next challenge before us is cascading and integrating the NUDHF in the plans and programs of all development players and partners.

Our appreciation goes to the Housing and Land Use Regulatory Board. With collaboration and assistance from the different agencies, organizations, and stakeholders, notably UN-Habitat and the Philippine Institute of Environmental Planners, a framework was crafted to comprehensively guide urban planning, governance and spatial management—a timely response to Sustainable Development Goal 11 of making cities and human settlements inclusive, safe, resilient, and sustainable and to the call of the New Urban Agenda for transformative commitments.



Secretary Eduardo D. Del Rosario
Chairman
Housing and Urban Development Coordinating Council





At a time when the Philippines is experiencing rapid urbanization with its attendant opportunities and challenges, a guide for urban stakeholders, particularly mayors, councilors, urban practitioners, investors, and communities, to manage the pace, form, and direction of urban growth is not only useful but critical and urgent. Thus, this updated National Urban Development and Housing Framework (NUDHF) 2017–2023 could not have come at a more opportune time.

We congratulate the Government of the Philippines, particularly the Housing and Land Use Regulatory Board which led the review and update of the NUDHF, for coming out with this latest version, the 4th since its initial 1993–1998 edition. Key to the enhancement of the NUDHF is climate change. For the first time, the framework recognizes and embraces climate resilience as a bedrock for overall development, upon which spatial and sectoral strategies can be based. This fully aligns with national goals and policies, particularly the Philippine Development Plan 2016-2022 and the New Urban Agenda, as well as global commitments to climate action.

This framework also draws inspiration and lessons from global experience and international good practices mined from UN-Habitat's global network of urban experts. We commend the government for the comprehensive and intensive process of consultations with national government agencies, local governments, academe, urban practitioners, developers and investors as well as non-government organizations and communities. We also acknowledge and thank the Philippine Institute of Environmental Planners for providing technical support in the drafting of this latest edition.

We hope this NUDHF will be useful as the government transitions into the Department of Human Settlements and Urban Development working towards a common vision based on core principles and values. At the local level, the NUDHF can be an empowering tool for cities and local governments as they lead their own development into a sustainable future for all their constituents. We invite all urban stakeholders to take the government's lead, and make full use of the new NUDHF to guide our efforts towards a better urban future for all.

UN-Habitat is honored to work with dedicated colleagues and partners in the development of this NUDHF and remains committed to support the Philippine government at all levels in building capacities of urban leaders to achieve resilient, inclusive, safe, and sustainable cities and human settlements.



Christopher E. Rollo
Country Programme Manager
UN-Habitat Philippines

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LIST OF **ACRONYMS**

ADB	Asian Development Bank
ASEAN	Association of Southeast Asian Nations
CDP	Comprehensive Development Plan
CLUP	Comprehensive Land Use Plan
DRR	Disaster Risk Reduction
DRRM	Disaster Risk Reduction and Management
GDP	Gross Domestic Product
GHG	Greenhouse Gas
Habitat III	Third UN Conference on Housing and Sustainable Urban Development
HLURB	Housing and Land Use Regulatory Board
HUDCC	Housing and Urban Development Coordinating Council
ICT	Information and Communications Technology
ISFs	Informal Settler Families
LGU	Local Government Unit
MSMEs	Micro, Small, and Medium Enterprises
NEDA	National Economic and Development Authority
NIPAS	National Integrated Protected Areas System
NUDHF	National Urban Development and Housing Framework
PCE	Planned City Extension
PDP	Philippine Development Plan
SDG	Sustainable Development Goal
UDHA	Urban Development and Housing Act of 1992

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What is the National Urban Development and Housing Framework?

The National Urban Development and Housing Framework (NUDHF) is the development framework for urban and urbanizable areas aimed at achieving the objectives of the Urban Development and Housing Act of 1992 (UDHA).

The NUDHF provides an overarching framework for urban development and housing, consisting of a vision, policy statements and strategies, and encompassing core development sectors and spatial elements. It is intended to guide the efforts of the Philippine government, private sector and other stakeholders in improving the performance and efficiency of the country's urban systems.

Who prepares it?

The UDHA mandates the Housing and Land Use Regulatory Board (HLURB), under the direction of Housing and Urban Development Coordinating Council (HUDCC), to formulate the NUDHF. This shall be done in coordination with all LGUs and other concerned public and private sectors.

The NUDHF is seen as a dynamic framework that needs to be updated as often as necessary and as warranted by existing and projected urban development trends locally and internationally. Customarily, it is updated in conjunction with the Philippine Development Plan (PDP) which is prepared every six (6) years by the National Economic and Development Authority (NEDA). It captures the urbanization and spatial policies of the PDP and considers the New Urban Agenda, Sustainable Development Goals, the National Framework for Physical Planning, and other overarching urban development frameworks.

Whom is it for?

The NUDHF is intended to be used primarily to guide the formulation and implementation of plans, programs and activities of national government agencies and local government units. It provides the private sector, academia, non-governmental organizations, civil service organization, people's organizations, and other stakeholders with information and possible avenues of collaboration.

How is it written?

The NUDHF is presented in four sections. Section 1 gives the overview, rationale, and basis for a national urban policy in the Philippines. Section 2 details the framework itself, including the vision, principles, and strategies towards sustainable urban development. Section 3 provides guidance on mainstreaming the NUDHF into national, subnational, and local policies, plans and programs. It also contains a matrix of policy and program implications and recommendations for each strategy presented. Section 4 contains the sectoral and spatial analysis needed for crafting the framework.

INTRODUCTION

1.1 RATIONALE

The National Urban Development and Housing Framework (NUDHF), first crafted in 1993, addresses the need for an overall framework for urban policy and strategy, based on a clear urban development vision. The NUDHF contains a set of policy statements, strategies, and implementation measures intended to guide public and private sector efforts towards sustainable urban development and housing.

Since 1993, two updates (1999 and 2009) have been formulated, leading up to this current version.

1.2 THE 2017-2022 NUDHF

The NUDHF needed update as required by law, in light of new and emerging issues and challenges from climate change, new

urbanization dynamics, economic growth, and other development trends. Details are presented and highlighted in succeeding sections.

1.2.1 Policy Review

Two complementary policy reviews were conducted before and during the NUDHF updating process.

The first review involved an assessment of previous NUDHFs (1993-1998, 1999-2004, 2009-2016), relevant legislation, policies and programs.

Table 1 provides a comparative summary of previous NUDHFs, offering insights on how the framework can be carried forward, trends over time, as well emerging issues and opportunities.



INTRODUCTION

Table 1: Summary of Previous NUDHFs

	NUDHF 1993-1998	NUDHF 1999-2004	NUDHF 2009-2016
Drivers of Urbanization	Rapid population growth	Higher birth rate in urban areas	External drivers: globalization factors, increased competition from international markets, the magnitude of foreign direct investments
	Rural to urban migration	Migration from rural areas as a result of extreme rural poverty	Internal drivers include rapid national and urban population growth, skill levels of existing supply of labor, the state of physical infrastructure, fiscal and institutional constraints, internal access and linkages, etc.
	Shift from agricultural to industrial economy and other urban based activities/services	The reclassification as "urban" those rural areas with a population density that is relatively high compared to traditional rural areas, and increasing urban density	
Vision	Urban development shall be carried out in a manner that will realize the national vision of a self-reliant, prosperous and empowered citizenry towards a newly industrialized country status	The overall objective of urbanization should be to develop an urban structure that (i) facilitates economic production, (ii) develops and strengthens local comparative advantages, and (iii) provides all urban residents with an improving quality of life	The vision for urban development in the Philippines is an urban system that: facilitates economic growth; develops and strengthens local comparative advantages; and significantly improves the quality of life of its residents
Focus/Themes	<p>Macro framework for urban development</p> <p>Role of urban areas in national development</p> <p>Population distribution and migration government units (LGU) capacity for urban development</p> <p>Institutionalized participation of concerned sectors (private sector, NGOs, people's organizations) in urban development</p> <p>Improved access and availability of land for urban development</p>	<p>Urban growth, integration, and metropolitanization</p> <p>Urban land resource management</p> <p>Urban environmental management</p> <p>Physical and social infrastructure</p> <p>Housing and regulations</p> <p>Urbanization governance and management</p>	<p>Urban competitiveness</p> <p>Poverty reduction</p> <p>Housing affordability and delivery</p> <p>Sustainable communities</p> <p>Performance oriented governance</p>

The review notes that a framework of policies alone will not achieve success. What transforms them is the active cooperation of all stakeholders concerned in implementation, such as government, NGOs and people's organizations, communities, the private sector, development partners, among others. It recommends: an exploration of ways to institutionalize discussions on urban development issues at the Cabinet level; the formal adoption of the framework by the Housing and Urban Development Coordinating Council (HUDCC); and the formal adoption of the framework's strategic recommendations and policies with corresponding actions of the corresponding national government agency's sectoral plans.

The review also finds necessary a massive information and education campaign, from regional and urban centers to *barangays* (villages). This reinforces and enhances the role of the national government agencies, in particular the role of the Housing and Land Use Regulatory Board (HLURB) in building LGUs' capacities in development and land use planning, urban development, and housing. Finally, the review underlines the need to harmonize the NUDHF with national development plans and strategies.

The second policy review examined the intersection of climate change policies, particularly the National Climate Change Action Plan and Intended Nationally Determined Contributions, and urban development policies. It looked at gaps and opportunities for mainstreaming climate change into the NUDHF. As part of a multilevel governance process, the NUDHF facilitates the coordination and ensures the coherence of climate change strategies, from the central authorities to the city level, while being flexible and moldable to local realities.

Key findings:

National Climate Change Institutional Framework. The National Climate Change Action Plan doesn't address comprehensively

cities' vulnerability to climate change or their key role in mitigating its impacts. Nevertheless, many interconnections between urban development and climate change adaptation and mitigation (CCAM) strategies can be found across the framework.

Strengthening Climate Change and Urban Governance. There is a clear framework on urban and climate change governance institutionalized by the Local Government Code, the Urban Development and Housing Act, and the Climate Change Act, among others. That said, policy gaps between climate change and urban development policies still exist, exacerbated by narrow coordination mechanisms and the lack of resources and capacities of stakeholders. The NUDHF will be effective in promoting better coordination among key national agencies, LGUs, and other stakeholders in the urban governance process.

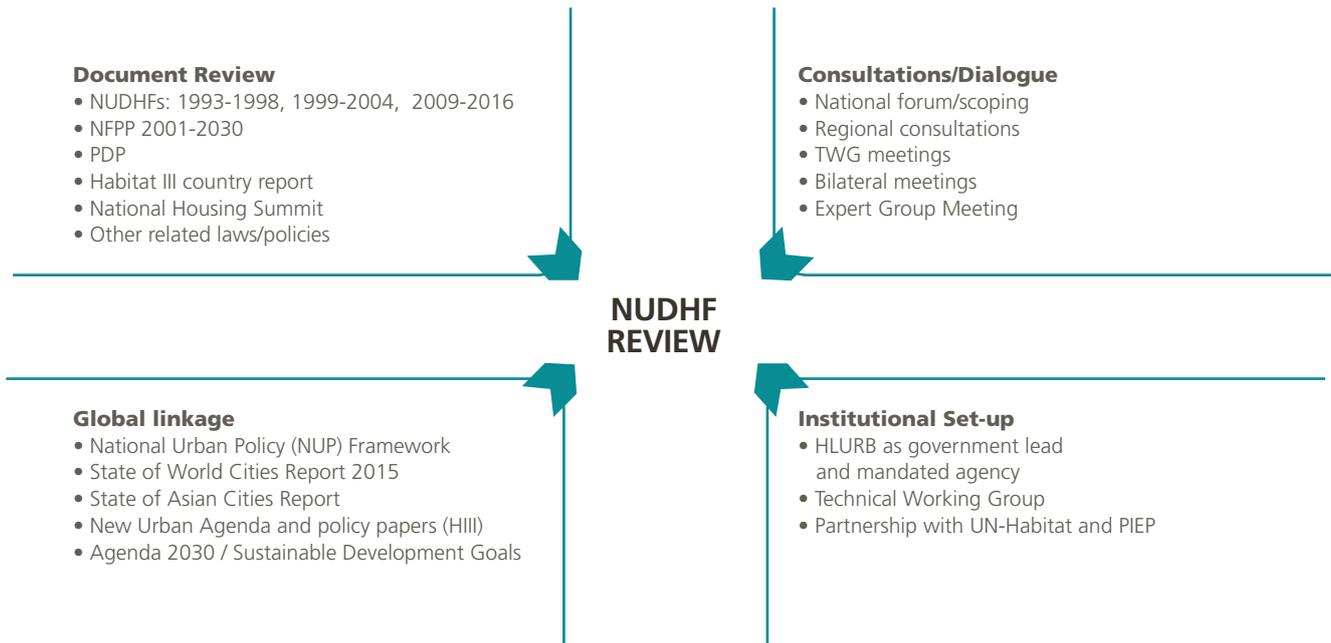
Integrated approach to urban resilience. The NUDHF advocates for an integrated approach on urban poverty and climate action, oriented towards the broad concept of urban resilience. Elements of resilience are evident in existing policies, and should be captured and enhanced using the NUDHF as platform. The NUDHF serves as a bridge to ensure consistency and strengthen coordination between national and local authorities across development plans, providing security, ecosystems protection, and prioritization of the most vulnerable communities.

The above assessments helped provide direction to this NUDHF, identifying key challenges as well as entry points for enhancement, particularly in integrating climate change into urban development policies and strategies.

1.2.2 Updating Process

A series of workshops, consultations, expert group meetings and technical meetings were held over a period of two years to formulate this updated NUDHF, using the review framework presented in Figure 1.

Figure 1. NUDHF Review Framework



This NUDHF, by constant evolution of the spaces and systems it encompasses, seeks to usher in a new urban development paradigm, one that simultaneously enhances and departs from previous policies. On the one hand, it reinforces the government’s previous intended outcomes of urban development¹, as follows:

- Better quality of life for residents of cities/ urban centers;
- Urban centers that are economic hubs and major contributors to national productivity and industrialization;
- Urban communities that are socially and environmentally healthy;
- Urban areas that are centers for engagement in productive and income-generating activities;
- Cities that can house and deliver basic services to its citizens, particularly the poor;
- Urban centers that promote political democratization through greater people's participation in decision-making; and

• Urban governments that are capable and competent in addressing the various urban issues and concerns.

It likewise supports these long-held goals:²

- Increased national integration and cohesion through well-defined and focused policies and strategies for urban development;
- Defined roles of urban areas/cities in national development to attain rational, spatial, and economic growth;
- Guided rural to urban migration to attain proper spatial arrangement of people and their activities;
- Improved government efficiency and capability to manage urban development;
- Institutionalized participation of concerned sectors (the private sector, non-governmental organizations, people’s organizations, and communities) in urban development;
- Improved access and availability of land for urban uses, in particular for the housing needs of the urban poor and other marginalized groups;

¹ Housing and Land Use Regulatory Board, NUDHF, 1993-1998.

² Ibid.

- Adequate, equitable, and efficient provision of urban services (transportation, sanitation, health, etc.); and
- Protection of the natural environment and community conservation.

On the other hand, recognizing lessons from the past two decades, the 2017-2022 NUDHF moves forward with emphasis on making urban spaces more inclusive, and creating more open, connected, and collectively resilient communities. It focuses on the role of urbanization in creating equitable growth, and it will describe and promote uniquely Filipino cities, municipalities, and urban areas.

1.2.3 Legal Bases

Different laws provide legal grounds for the NUDHF. Art. II, Sec. 9 of the **1987 Philippine Constitution**, which protects Filipinos' right to an improved quality of life, provides that:

"The state shall promote a just and dynamic social order that will ensure the prosperity and independence of the nation and free the people from poverty through policies that provide adequate social services, promote full employment, a rising standard of living and an improved quality of life for all."

Likewise, Art. XIII, Sec. 9 of the Constitution guarantees the right to decent shelter:

"The State shall, by law and for the common good, undertake, in cooperation with the private sector, a continuing program of urban land reform and housing, which will make available at affordable cost, decent housing and basic services to underprivileged and homeless citizens in urban centers and resettlement areas. It shall also promote adequate employment opportunities to such citizens. In the implementation of such program, the State shall respect the rights of the small property owners."

More explicitly, the **Urban Development and Housing Act of 1992** (UDHA) mandates

the HLURB, under the direction of HUDCC, to formulate the NUDHF. This shall be done in coordination with all LGUs and other concerned public and private sectors.³

Recent legislation has also encouraged urban stakeholders to update policies and devise strategies in response to urban realities. The **Climate Change Act of 2009** and its amending law seeks to build national and local resilience to climate change-related disasters and protect and advance the people's right to a healthy ecology. It compels the government to stabilize greenhouse gas (GHG) concentrations at a level that prevents dangerous human interference with the climate system. This is to ensure that food production is not threatened and that economic development proceeds in a sustainable manner.⁴

Meanwhile, the **Disaster Risk Reduction Management Act of 2010**, in response to the country's vulnerability to natural disasters as well as climate change impacts, "provides for the development of policies and plans and the implementation of actions and measures pertaining to all aspects of disaster risk reduction and management, including good governance, risk assessment and early warning, knowledge building and awareness raising, reducing underlying risk factors, and preparedness for effective response and early recovery."⁵

Finally, Section 16 of the **Local Government Code** directs LGUs to exercise their powers for efficient and effective governance and towards the promotion of the general welfare. LGUs shall ensure and support the "preservation and enrichment of culture, promote health and safety, enhance the right of the people to a balanced ecology, encourage and support the development of appropriate and self-reliant scientific and technological capabilities, improve public morals, enhance economic prosperity and social justice, promote full employment among their residents, maintain peace

³ Republic Act No. 7279 (1992): art. III, sec. 6.

⁴ Republic Act No. 9729 (2009).

⁵ Republic Act No. 10121(2010): sec. 4

SDG 11 aims to “make cities and human settlements inclusive, safe, resilient and sustainable.”

and order, and preserve the comfort and convenience of their inhabitants.”⁶

It is within the power of local governments to plan and implement strategies towards an inclusive, safe, resilient and sustainable urban system. The NUDHF provides guidelines to achieve this.

1.2.4 Policy Anchors

The government also anchors the NUDHF on a number of relevant globally accepted frameworks and national policies.

Among these are the **Sustainable Development Goals** (SDGs) adopted by world leaders in September 2015, which officially came into force on January 1, 2016. These SDGs set the course for a global effort to end all forms of poverty, fight inequalities, and tackle climate change, while ensuring that no one is left behind. Over the next 15 years, nations will ensure the implementation of development strategies that build economic growth and address a range of social needs, including education, health, social protection, and job opportunities, while tackling climate change and environmental protection.

The SDGs are as follows:

Goal 1: End poverty in all its forms everywhere.

Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture.

Goal 3: Ensure healthy lives and promote well-being for all at all ages.

Goal 4: Ensure inclusive and equitably quality education and promote lifelong learning opportunities for all.

Goal 5: Achieve gender equality and empower all women and girls.

Goal 6: Ensure availability and sustainable management of water and sanitation for all.

Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all.

Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.

Goal 10: Reduce inequality within and among countries.

Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable.

Goal 12: Ensure sustainable consumption and production patterns.

Goal 13: Take urgent action to combat climate change and its impacts.

Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development.

Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

⁶ Republic Act No. 7160 (1992);, sec. 16.

Goal 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.

Goal 17: Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development.

One of the 17 SDGs refers directly to the sustainable development of cities and human settlements. Specifically, **SDG 11 aims to “make cities and human settlements inclusive, safe, resilient and sustainable.”**

Within this goal are targets that constitute the built environment agenda, and ensures that issues are addressed through the spatial lens. **SDG 11** is transformational, targeting the sequential progress required to achieve higher-level outcomes in other goals. It also empowers cities as arenas of implementation, as well as local governments as the level closest to people. Moreover, with more than half of the world’s population now considered urban dwellers, cities will determine the success of the overarching goals of poverty eradication, equality, climate change action, and ensuring healthy lives. Of the 17 SDGs, 15 can be implemented only at the local level, an important consideration for the Philippines, which places local government units at the forefront of development action.

SDG 11 has the following targets that focus on various themes and elements of sustainable cities and communities. These also help to guide the country’s urban development actions at the national and local level:

11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services, and upgrade slums.

11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.

11.3 By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries.

11.4 Strengthen efforts to protect and safeguard the world’s cultural and natural heritage.

11.5 By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations.

11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management.

11.7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons, and persons with disabilities.

11.A Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning.

11.B By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels.

11.C Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials.

Either by these specific targets or the overall goal, SDG 11 sets the stage for achieving many of the other SDGs.⁷ This is especially for SDGs that involve poverty alleviation, urban services and infrastructure, urban action towards climate resilience, sustainable consumption, and sustainable ecosystems, among others. Links between the SDGs and the NUDHF

⁷ UN Chronicle, Vol. LI No. 4 2014 (2015), <https://unchronicle.un.org/article/goal-11-cities-will-play-important-role-achieving-sdgs>.

INTRODUCTION



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SUSTAINABLE DEVELOPMENT GOAL (SDG) 11,

considered the "urban" SDG, envisions cities and human settlements that are inclusive, safe, resilient and sustainable.

strategies will be further identified in Section 3.

The Philippines is also a party to the Third United Nations Conference on Housing and Sustainable Urban Development, **Habitat III**. Recognizing significant gaps in prevailing urban development models across the world, Habitat III introduced the **New Urban Agenda**. The New Urban Agenda aims to address urban poverty and social exclusion, as well as to enhance and extend human rights perspectives in their application to cities and human settlements. It encourages a shift in the predominant urban pattern to minimize socio-spatial injustices, enhance equity, increase inclusion, broaden political participation and ensure a decent life for all inhabitants.⁸

Included in the New Urban Agenda is **The Right to the City**, a new paradigm that "re-thinks cities and urbanization" and envisions the effective fulfillment of all internationally agreed human rights, the SDGs, and the commitments of the Habitat Agenda. The Right to the City pertains to the diversity of all inhabitants on the basis of their common interests. It belongs to present and future generations; it is indivisible and not subject to exclusive use or appropriation.

It can be exercised in every metropolis, city, *barangay*, or town that is institutionally organized as a local administrative unit with district, municipal, or metropolitan character. It includes the urban space as well as the rural or semi-rural surroundings that form part of its territory.

The Philippine government recognizes that achieving the aims of the New Urban Agenda requires a national urban policy that effectively establishes the connection between the dynamics of urbanization, demographic dynamics, and the overall process of national development. A successful policy shall harness the benefits of urbanization while responding to its challenges. This is accomplished through the development of a much broader, crosscutting vision of an urban landscape, embracing urbanization across physical space, bridging urban, peri-urban and rural areas, and addressing challenges such as integration of climate change through national and local development policy frameworks.⁹

The Philippines has formulated its **Philippine New Urban Agenda (PhiNUA)**, carrying the principles set forth at the global level, and placing the agenda in the local context.

The New Urban Agenda of the Philippines lays down the following action areas:

1. Urban Demography: Capturing the youth dividend, a more spatially balanced and interconnected development, and safeguards for the vulnerable and disadvantaged;
2. Land and Urban Planning: Effective regional planning and development, planning for climate change adaptation and disaster risk reduction, and improving access to urban land;
3. Urban Environment: Climate change and disaster resiliency, urban environmental infrastructure improvements, and developing green cities;
4. Urban Governance: Stronger sector leadership, effective multilevel governance, improved local urban governance capacity, and participatory and transparency mechanisms;

⁸ United Nations, Habitat III Policy Paper 1 – Right to the City And Cities for All (June 2016).

⁹ United Nations, Habitat III Policy Paper 3 – National Urban Policy (June 2016).

5. Urban Economy: Diversified local and housing finance, sustainable local economic development, and urban economy mainstreaming in development planning;

6. Housing and Basic Services: Scaling up low-income and pro-poor housing; affordable, reliable and resilient basic services; and shifting to an inclusive, low-carbon urban transport system.

Sustainable urban development is also anchored on principles expressed in the **2001-2030 National Framework for Physical Planning (NFPP)**, which espouses growth with social equity. The NFPP advocates that land use, physical, and related planning activities shall proceed within the context of principles that support sustainable allocation and use of land and water resources. These principles include the following:

- food security;
- environmental stability and ecological integrity;
- rational urban development;
- spatial integration;
- equitable access to physical and natural resources;
- private-public sector partnership;
- people empowerment;
- recognition of the rights of indigenous people; and
- market orientation.

The framework aims for the use of the country's land and other physical resources that yields the greatest economic benefit to both the present and future generations.

The government has also crafted **AmBisyon Natin 2040**, which represents the long-term vision and aspirations of the Filipino people for themselves and for the country. It describes the kind of life that people want to live, and how the country will be by 2040.¹⁰

Spearheaded by the National Economic and Development Authority (NEDA), AmBisyon 2040 envisions that by 2040, the Philippines will be "a prosperous, predominantly middle-class society where there is equality of opportunities and poverty has been eradicated. It will be a society where people live long and healthy lives with a higher life expectancy at birth of 80 years. Longevity will be enhanced by the ability of individuals and communities to withstand natural as well as man-made shocks and disasters. With smarter and more innovative people, the country in 2040 is also envisioned to be a major player in the global knowledge economy, producing innovative products and processes that are used to make high-quality goods and services at competitive prices. The Philippines will be a high-trust, more caring, and peaceful society where human security is assured and the government enjoys the people's trust because it is clean, efficient, and service-oriented. High trust will also prevail between the private sector and the government, as well as between and among peoples. Overall, a high-trust society will facilitate official and business transactions, and smooth interpersonal relations."

The long-term vision serves as an anchor for development planning for the next 25 years, part of which is the **Philippine Development Plan (PDP) 2017-2022**, which focuses on the following themes:

- strengthening the social fabric;
- reducing inequality in economic development;
- increasing potential growth;
- enabling a supportive economic environment; and
- foundations for inclusive and sustainable development.

The above legislation, policies, and agreements set the tone for the NUDHF, and ensure the alignment of urban-related strategies to the overall development framework of the country, as well as of the global community.

¹⁰ AmBisyon Natin 2040 (2017) <http://2040.neda.gov.ph/>.

FRAMEWORK

2.1 VISION AND PRINCIPLES

2.1.1 Vision

The National Urban Development and Housing Framework (NUDHF) 2017-2022 adopts the country's vision of urban development, as articulated in the Philippine New Urban Agenda:

Better, Greener, Smarter Urban Systems in a More Inclusive Philippines

Better Urban Systems are globally competitive, economically vibrant, and livable. Greener Urban Systems are environmentally sustainable, climate resilient, and safe. Smarter Urban Systems are connected physically, spatially and digitally. An Inclusive Philippines is equitable, participatory, and provides universal access to quality basic services. It safeguards children, women, the elderly, and persons with disabilities. It equalizes access to livelihood opportunities and it enables informal settler families (ISFs) to transform in the metropolises, living their lives with more pride and dignity.¹¹

The Vision supports the aspirations of Filipinos as stated in AmBisyon 2040 and is aligned with the Philippine Development Plan 2017-2022.

2.1.2 Key Framework Principles

The NUDHF is founded on the following key principles that guide sustainable urban development and housing. These are basic, fundamental rules culled from internationally agreed principles, national commitments, government mandates, and

technical assumptions, validated through the participatory process undertaken in the crafting of the framework.

The key principles will guide all actors as they implement common and differentiated strategies at various levels of urban development work, towards the achievement of the Vision. The principles and their major components are as follows:

1. Urbanization as catalyst for inclusive growth

Urbanization:

- Must drive and influence the creation and transformation towards culturally, socially, economically, and politically inclusive development.
- Ensure citizenship and equal rights for all inhabitants, whether permanent or transitional, with added focus on the right to housing and urban services.



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¹¹ New Philippine Urban Agenda (September 2016).

- Must include women, those living in poverty or situations of environmental risk, informal economy workers, ethnic and religious groups, LGBT persons, persons with disabilities, children, youth, elderly, migrants, and refugee groups.

2. Climate change resilience as a base for spatial and sectoral development

Resilience:

- Must enhance the ability of a locality and its citizens to withstand impacts and shocks, to rebuild or re-organize itself when necessary.
- Should be the foundation in planning and decision-making: for spaces (neighborhoods, settlements, development areas, cities, municipalities, provinces, regions); and for addressing sectoral/cross-sectoral challenges (environmental, social, economic, infrastructure-related, institutional, and inclusivity of cultural practices or expression).

3. Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms

These entail:

- Urban design that aids in the integration and efficient functioning of urban elements, while ensuring social and economic inclusion.
- Efficient urban planning and design across scales, from the smallest to the largest unit or element of urban development.
- Physically, spatially, functionally connected and accessible systems, reflecting a coherent spatial framework of the Philippines.
- Urban systems that are capable of producing desired results without wasting time or energy. This includes biophysical, social, economic, infrastructure-related, political and legislative organization.
- Cities as a focal point for fostering sustainable, climate resilient development, spatial integration and urban-rural linkages.

4. Urban spaces as platforms for social and economic opportunity, cultural expression, and innovation

These entail:

- Provision of space for all inhabitants, with mechanisms that promote and facilitate activity.
- Spaces that allow for shelter, decent work and secure livelihoods, including formal and informal economic activities.
- Spaces that promote and support tangible and intangible cultural assets and creative practices and expression.
- Spaces that support and facilitate new technologies, organization models, and social, economic, and physical facilities.

5. People's participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance

This entails:

- Equal and substantive participation of all stakeholders in the critique, implementation, and monitoring of urban development policies, legislation and actions.
- Involvement of marginalized sectors in decision-making for programs that affect their quality of life, enabling socially responsible private sector participation and responsibility.
- Support for the development of human capacity, promoting integrated governance and capacity building for government staff, and promoting deliberative urban processes.
- Embedded participatory and sustainable urban development processes, structures and mechanisms.

Table 2: Coherence of the NUDHF Principles and the Philippine New Urban Agenda

Philippine New Urban Agenda	National Urban Development and Housing Framework Principles
<p>1. Urban Demography: Capturing the youth dividend, a more spatially balanced and interconnected development, and safeguards for the vulnerable and disadvantaged.</p>	<ul style="list-style-type: none"> • Urbanization as a catalyst for inclusive growth. • Urban areas as accessible platforms for social and economic opportunity, cultural expression, and innovation. • Spatially and thematically integrated settlements within coherent and efficient urban systems and forms across scales.
<p>2. Land and Urban Planning: Effective regional planning and development, planning for climate change adaptation and disaster risk reduction (DRR), and improving access to urban land.</p>	<ul style="list-style-type: none"> • Spatially and thematically integrated settlements within coherent and efficient urban systems and forms across scales. • Resilience as a base for spatial structuring and sectoral development.
<p>3. Urban Environment: Climate and disaster resilience, urban environmental infrastructure improvements, and developing green cities.</p>	<ul style="list-style-type: none"> • Resilience as a base for spatial structuring and sectoral development.
<p>4. Urban Governance: Stronger sector leadership, effective multilevel governance, improved local governance capacity, and participatory and transparency mechanisms.</p>	<ul style="list-style-type: none"> • People’s participation and empowerment as foundations of urban governance, facilitating sustainable resource use, planning, management and finance.
<p>5. Urban Economy: Diversified local and housing finance, sustainable local economic development, and urban economy mainstreaming in development planning.</p>	<ul style="list-style-type: none"> • Urbanization as a catalyst for inclusive growth. • Urban areas as accessible platforms for social and economic opportunity, cultural expression, and innovation.
<p>6. Housing and Basic Services: Scaling up low-income and pro-poor housing, affordable, reliable and resilient basic services, and shifting to an inclusive, low-carbon urban transport system.</p>	<ul style="list-style-type: none"> • Resilience as a base for spatial structuring and sectoral development. • Spatially and thematically integrated settlements within coherent and efficient urban systems and forms across scales.

Figure 2. Illustration of the Links between NUDHF and AmBisyon Natin 2040

THE FRAMEWORK



6. Sustainable urban environment as a core development condition ensures:

- protection of ecosystems and urban biodiversity;
- efficient, affordable, and clean energy;
- sustainable use of air, water, land, and resources in urban development; and
- sustainable production and consumption.

The NUDHF principles are also made consistent with the Philippine New Urban Agenda (Table 2).

The key principles outlined in Table 2 are interpreted and expressed in more specific terms as thematic strategies. Together, they are intended to realize the vision for sustainable urban development in the Philippines.

2.2 STRATEGIES

The NUDHF strategies are divided among several themes or focus areas, following suggested themes in the National Urban Policy

guide¹², and contextualized for the Philippine setting. The strategies respond to issues and opportunities described in the Chapter 4: *Context and Critique*.

The strategies also inevitably raise policy and program implications, which will be detailed in Chapter 3: *Mainstreaming*.

2.2.1 Population

The Philippine population’s young demographic base results in a population momentum that will continue to drive population growth. As such, government must establish the urban system as a platform that maximizes the potential of the growing population in an increasingly urban Philippines.

2.2.1.1 Enforce a sound population management policy that focuses on the well-being of the family, especially women and youth

Future population growth will depend on the fertility rate among women of reproductive age. Studies show that investments in human

¹² UN-Habitat, National Urban Policy: Framework for a Rapid Diagnostic (2015).

FRAMEWORK

development not only directly promote well-being but also create the necessary conditions for the reduction in the demand for children. Public investments should be made in child education, such as: increasing school participation rates of low income families; child survival (addressing malnutrition); the promotion of gender equality (providing economic opportunities for poor women); and the integration of sexual and reproductive health education in the elementary and secondary level curricula.

The Philippines will benefit from the full implementation of the Responsible Parenthood and Reproductive Health Law (R.A. 10354), which assists couples to achieve their fertility goals through safe, legal, and affordable means consistent with their customs and religious beliefs. The Philippine government should adopt population strategies that advocate the advantages of a small family size, prevention of early marriages, and proper timing and spacing of childbirths as part of responsible parenthood.

THE NUDHF ENDEAVORS to confront the challenge of inefficient density and unfettered urbanization.

2.2.1.2 Transform the large youth population into a demographic dividend or window of opportunity

In 2015, there were more than 30 million Filipinos aged 10 to 24 years old. Comprising almost a third of the Philippine population, this young age group's potential must be developed.

A greater proportion of the gross domestic product (GDP) should be invested in education, including formal education and vocational-technical training, so that the youth enters the workforce employable and globally competitive

2.2.1.3 Offer and implement better incentives for efficient urban densities

Efficient densities in urban areas are essential to accommodate projected population increases, address urban sprawl, and sustain economic growth. Zoning regulations are an effective tool to encourage efficient



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densities, especially in prime urban areas, and regulate the nature, intensity, and direction of development. Performance-based zoning as well as balanced housing in vertical developments can be considered.

2.2.1.4 Support vulnerable sectors and minimize displacement

Urbanization should provide all members of Philippine society opportunities for development. A culturally sensitive social mix in urban areas that supports vulnerable sectors such as women, youth, indigenous peoples, persons with disabilities, the poor, and migrants, will contribute to inclusive growth.

In order to prioritize these groups in urban development and housing, displacement of informal households must be minimized. This can be done through onsite shelter development, redevelopment and renewal of blighted areas, planned city infill, and rental housing for the poorest of the poor.

Policies to support these strategies, such as tax reform and the use of free patents, should be considered. These can help avoid loss of shelter and livelihood, prevent formation of slums, and capitalize on the strengths of the sector. In addition, government should develop policies supporting culturally appropriate housing for indigenous peoples.

2.2.1.5 Support preventive resettlement as a spatial planning tool and a risk reduction approach

Preventive resettlement of households is an effective long-term DRRM strategy. Local governments not only ensure the safety of affected families living in danger areas, they also recover the proper use of urban resources such as *esteros* (estuaries or inlets), railroad tracks, landfills, garbage dumps, waterways and easements, and public spaces.

Where resettlement of households is unavoidable, such as cases where informal settler families are located in danger areas or unsuitable sites, government must ensure that the resettlement site has access to livelihood or income opportunities, and that the resettlement site is complete with basic utilities such as power and water supply.

Encroachment along roadways should be prevented to control urban sprawl. Cities should consider resettlement sites in planning their expansion areas or growth nodes.

Adverse flooding impacts are magnified when city residents form highly dense settlements in flood-prone areas. Floodplains have traditionally been used for settlements, in the Philippines as well as in other Asian cities such as Dhaka, Ho Chi Minh, Jakarta, and Mumbai. A more efficient use of floodplains, however, is agricultural rather than residential, although this strategy is difficult to implement when floodplains have already been transformed into built up areas. In this case, local governments can prioritize the relocation of families from danger areas.

2.2.1.6 Prioritize allocation of land for utilities and critical infrastructure in an archipelagic setting

National and local governments should be more proactive in identifying, acquiring, safeguarding, and developing land for critical infrastructure such as mass transportation, roads and bridges, ports, airports, water distribution, power, and communications. Moreover, infrastructure planning should consider both land and water uses, and aim to increase connectivity between islands. Doing so would improve access to services, support inclusive mobility, and encourage sustainable urban development in more areas in the country.

2.2.1.7 Develop the urban development database

Strategies and policies dealing with urban development and housing need to be based on evidence. Planning and managing cities and urban areas require the use of updated, valid, and reliable data.

Government should also consider including internal migration in the local civil registry or conducting a census of internal migration. At the local level, a barangay-based population register can be established, supported by a city ordinance.



Photo @Peter Friginal

PLANNING AND MANAGING cities and urban areas require the use of updated, valid, and reliable data.

Finally, the definition and measurement of urbanization, cities, and urban areas need to be reviewed periodically, given the changing Philippine and global contexts.

2.2.2 Urban Planning and Design

Planning and design are central to achieving sustainable urban development. In many ways, planning addresses development issues such as inefficient density, transport and mobility, and, increasingly, urbanization as an exacerbating factor of as well as a solution to climate change impacts.

Planning is a springboard for more detailed action at various scales, from streets and open spaces and down to blocks, plots, and building typologies. The following strategies encourage urban plans and designs that promote well-organized development patterns, efficient density, low-carbon development, energy efficiency, mixed land use, good connectivity, and social integration.

2.2.2.1 Fully operationalize ridge-to-reef / integrated ecosystems planning

The “ridge-to-reef” or integrated ecosystems planning framework was adopted by the Housing and Land Use Regulatory Board (HLURB) for the Comprehensive Land Use Plan (CLUP) Guidebooks (2013-2014). It emphasizes the city or municipality as a part of a greater ecosystem, and expands the scope to include the latter in the planning process instead of merely delineating land uses within the administrative boundaries of the city or municipality. Critical resources such as upland, coastal, ancestral domain, biodiversity areas, heritage, and urban are also integrated, along with plans of agencies that govern the management of these areas. This approach stems from an understanding of the interrelationship between various uses within the whole ecosystem to aid in objective-setting, decision-making, and action planning.

Fully utilizing the ecosystem-based planning approach necessitates an examination and possible reconfiguration of present governance mechanisms in order to facilitate coherent planning and design action within the identified ecosystem. This will be discussed further in 4.9, the chapter on Urban Governance.

2.2.2.2 Strengthen the mainstreaming of disaster risk reduction and management (DRRM) planning and climate change action planning with spatial and sectoral development planning

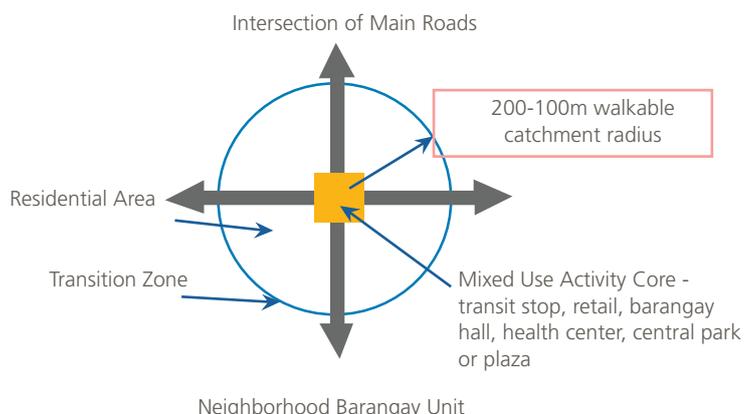
The mainstreaming of DRRM and climate change action in the CLUP and Comprehensive Development Plan (CDP) needs to be ensured. Areas for improvement, harmonization, and rationalization must also be identified where possible. This includes further highlighting and enhancing the climate change action and DRR elements of the CLUP Guidebook, further enhancing the Local Climate Change Action Plan (LCCAP) Guidebook, capacity building for planning offices, professionalization, and ethical accountability in the planning process and documentation.

Doing so will give stakeholders knowledge and guidance on innovative and appropriate

technologies, especially in enhancing urban resilience and sustainability. These may include the following: creating and protecting green, open spaces through proper land use and urban design; efficient street layout that reduces distance for motorized vehicles and promotes walkability; designing built-up areas to utilize renewable energy; retrofitting; and indigenous knowledge systems and practices.

2.2.2.3 Design barangays and neighborhoods in terms of human scale and walkability

The NUDHF proposes to return to human-scaled proportions and design barangays in terms of human scale and walkability, with the necessary infrastructure and services within walking distance of residents. This may be incorporated in the local development planning process following the CLUP Guidelines, specifically under the Special Studies on Urban Design and Development.



2.2.2.4 Promote adequate networks of public open spaces

Open space transforms the principle of inclusivity into a strategy for establishing democratic, safe, and vibrant spaces where people from all walks of life can meet, exchange, and test ideas in a non-confrontational manner, as well as collaborate for the public good. Public spaces that are accessible prevent the breakup of cities into private enclaves, and are generally easier to police.

The NUDHF prioritizes the identification and protection of open spaces as a first step in designing urban areas, with built-up spaces planned around and in consideration of this network. Local government units (LGUs) must establish the primacy and connectivity of public spaces, and provide resources for their development. This also includes locating and establishing public buildings in strategic areas, and designing public spaces to support DRR and climate change action – such as spaces in view of escape routes and evacuation plans.

Along with revisiting land use legislation, the government can provide incentives to allocate land and financing for the development of parks, historical plazas, visual corridors, walkable streets, and/or bikeable boulevards and avenues. LGUs can also collaborate with private developers to create publicly accessible networks of open spaces.

BOX 1: WHAT IS WALKABILITY?

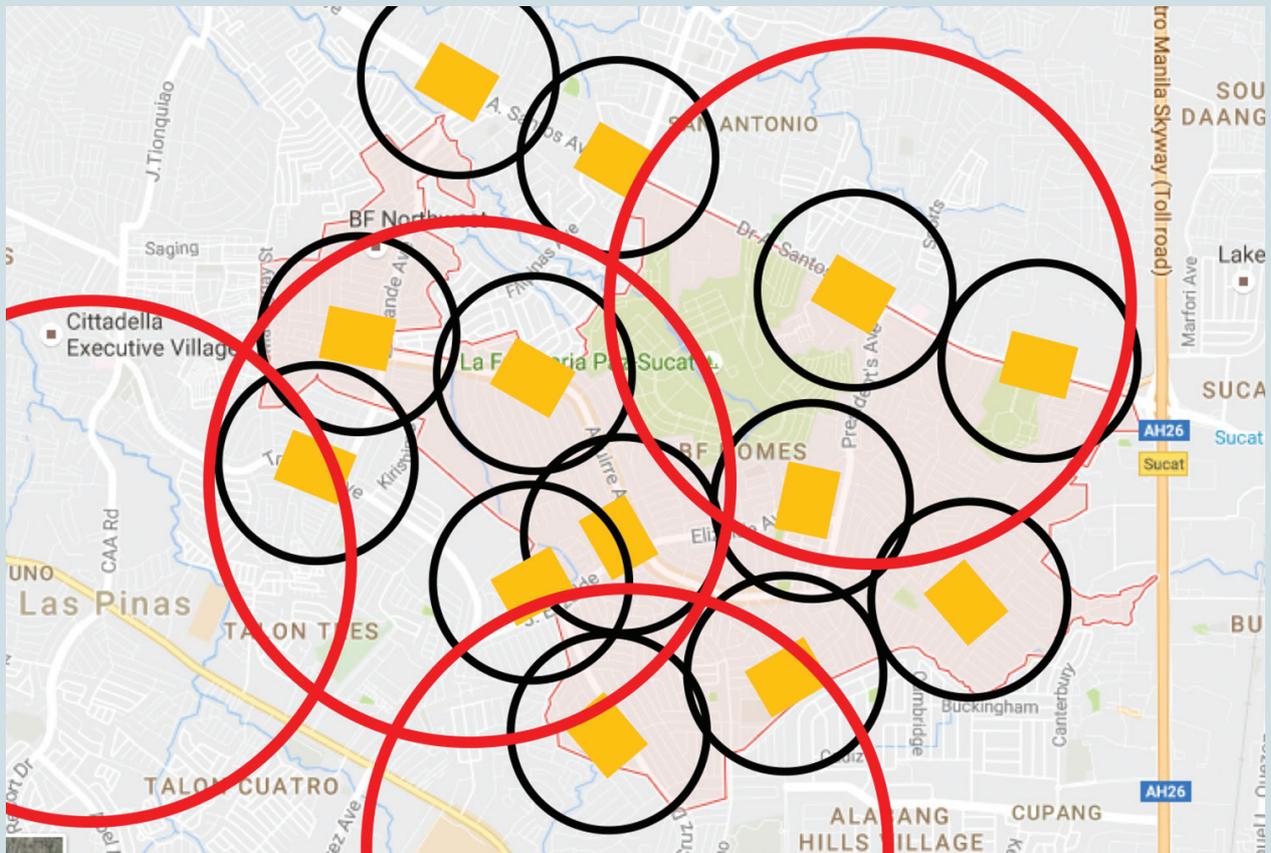
Walkability is defined as “the extent to which the built environment is friendly to people moving on foot in an area. Factors affecting walkability include, but are not limited to: street connectivity; land use mix; residential density; presence of trees and vegetation; safety; and frequency and variety of buildings, entrances and other pleasing views along street frontages.”

The common benchmark for walkability is a 400 meter radius or a five minute walk. The barangay or neighborhood unit becomes an organizing device with a neighborhood/barangay center along the principle routes of convergence, where the highest concentrations of activity where mixed use centers are best located. Residents should be able to walk to the barangay hall, local market/shops, health center or elementary school within a walking distance of 200-800 meters. See upper-right diagram.

Source: The Urban Design Compendium



Along with revisiting land use legislation, government can provide incentives to allocate land and financing for the development of parks, historical plazas, visual corridors, walkable streets, and/or bikeable boulevards and avenues.



BOX 2: SAMPLE MAP OF NEIGHBORHOODS/BARANGAYS/UNITS

Black circles represent walkable neighborhoods (800 meters in diameter) with mixed use centers of activity located at major intersections. These may also be used as criteria for establishing transit stops to connect neighborhoods.

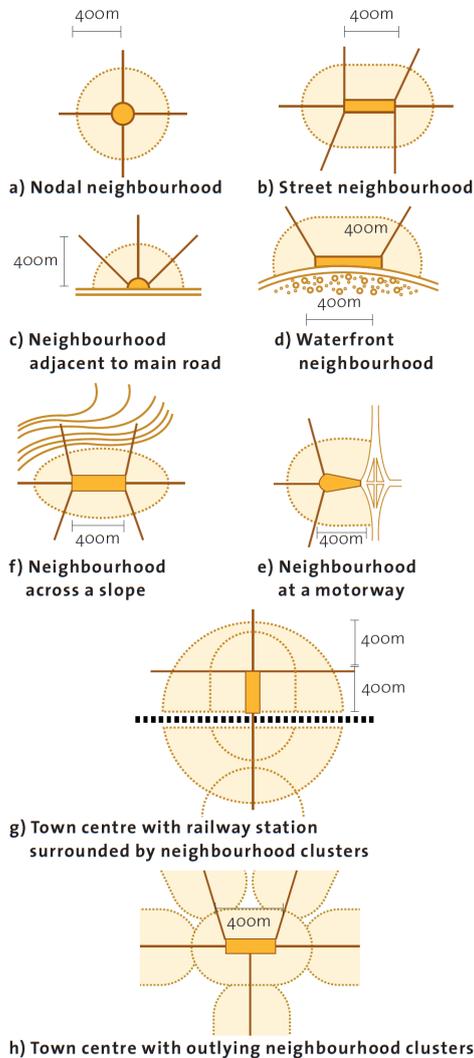
Red circles represent districts formed by groups of neighborhoods. Several districts comprise a city or municipality.

Aside from improving accessibility, the barangay/neighborhood unit also improves urban design, reduces car dependence, has health benefits and in terms of provision of basic services.

Within the urban development framework, a national open space network can link the National Integrated Protected Areas System (NIPAS), heritage zones, urban agriculture areas, easements and buffer zones, and government infrastructure. The protection and maintenance of such zones in order to fully operationalize the open space strategy will be discussed in 4.9, the Urban Governance chapter.

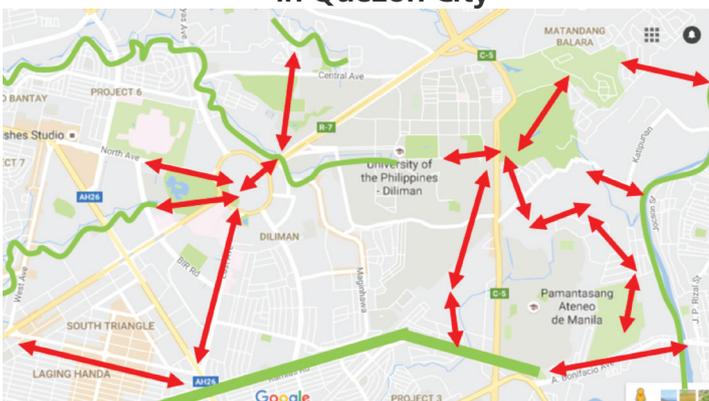
Finally, placemaking can serve the design needs of urban design and renewal, and provide stakeholders with the opportunity to guide the evolution of their city or municipality. Inclusive, participatory planning methods can bring the creation of public spaces down to the street level, according to the vision of the community. It allows the community to participate in the design, development, and maintenance of these public spaces, encouraging ownership.

Figure 3. Typologies of Neighborhood Units with Centers at Crossroads



Source: Urban Design Compendium, English Partnerships, 2007

Figure 4. Potential Open Space Network in Quezon City



2.2.2.5 Consider the water cycle in urban planning and design

The water cycle should be considered as a key element at all levels of planning and design. Plans must support watershed improvement. Subsequently, they must include, where possible, the development of alternative water sources other than groundwater. In line with this, the collection of rainwater and the recycling of domestic water for domestic use must be considered. Cities and municipalities must ensure adequate domestic water supply without encroaching on the recharge areas of adjacent areas. Land developments must be reviewed to ensure adequate water supply for the communities being developed as well as adjacent communities.

To supplement planning and zoning efforts, water-sensitive urban design may also be employed at the local level, to help reduce water consumption. This may include: road layout and streetscape using bio-retention systems, infiltration trenches and systems, sand filters, and porous paving; public open spaces as sedimentation basins, constructed wetlands, swales, buffer strips, lakes, and ponds; and water reuse using rainwater tanks and aquifer storage and recovery.

2.2.2.6 Promote compact development

Compact development entails the promotion of efficient densities at all scales of urban planning, which maintains the balance between urban demand and resource availability. Areas with efficient densities tend to cut back the cost of public services such as police and emergency response, infrastructure maintenance, school transportation, water, sewage, etc. This will promote the holistic management of the urban area and reduce urban sprawl.

Meanwhile, high density land use plans with low street density capacity discourage mobility. Street layout therefore should anticipate and allow densification processes in the future, and should have the capacity to absorb different building types and functions over a long period of time

2.2.2.7 Promote mixed use development

Following the principle of spatial and sectoral integration within coherent and efficient urban

systems, local government and development partners are urged to plan areas for mixed uses, and minimize highly specialized land zoning. Mixing land uses allows for the integration of complementary activities, and supports compact development. Land use specialization to limit single function blocks or neighborhoods is discouraged.

Mixed use development also lowers public service and business transaction costs, and captures the benefits of economies of scale.

2.2.2.8 Promote social mix

Urban design at the local level should maximize the use of spaces to promote social equality and spatial justice. Urban spaces, including buildings and residential areas, should espouse social integration and diversity of social groups as well as income. Diversity and social inclusion should be encouraged consciously by local authorities and planners especially in designing public spaces, including streets, markets, schools and universities, parks and plazas, beaches, and water front zones.

The private sector should also be encouraged to expand low-cost and socialized housing projects to be more inclusive, and culturally and economically diverse. This can come in the form of incentives for mixed income housing, a wider range of tenure options, or urban design that promotes social interaction rather than exclusion.

2.2.2.9 Integrate mobility and transport planning in land use planning

While transport planning is a specialized form of planning, it should be integrated into a

BOX 3: WHAT IS AN OPEN SPACE?

The HLURB CLUP Guidelines define open space as a space where permanent buildings shall not be allowed and which may only be used as forest, buffer/greenbelts, parks and playgrounds, and similar uses.

Following are examples of various open spaces in Quezon City: power transmission line, river/creek easements, parks, arboretum, and memorial parks. The arrows in Figure 4 represent possible links or paths between these spaces that could help build a city's open space network.

larger planning process. Integrating mobility and land use recognizes the value of accessible land use patterns to improve transportation, while reducing physical travel. Transport planning helps communities to focus on their ability to reach desired goods, services, and activities, rather than on physical movement, thus reducing the adverse impacts of motorization on the quality of life and attractiveness of cities.

The NUDHF advocates the shift from car-oriented to people-oriented mobility. A new hierarchy of transportation and mobility is introduced, prioritizing pedestrians first, then non-motorized vehicles such as bicycles, followed by public transport, commercial vehicles, taxis and single occupancy vehicles.

LGUs must plan their barangays and neighborhoods to reduce vehicular dependence and prioritize walkability and mass transportation. Roads need to complement the urban structure. Transportation investment policies and programs must therefore be coupled with land use policies and programs that prioritize the provision of efficient and comfortable public transport.

BOX 4: WHAT IS WATER-SENSITIVE URBAN PLANNING AND DESIGN?

Water-sensitive urban planning and design, sometimes called low-impact design or sustainable urban drainage systems, is a “planning and engineering design approach that integrates the urban water cycle, including storm water, ground water, and waste water management and water supply, into urban design to minimize environmental degradation and improve aesthetic and recreational appeal.”

Source: Urban Design Compendium, English Partnerships, 2007

BOX 5: WHAT IS TRANSIT-ORIENTED DEVELOPMENT?

Transit-oriented development refers to the creation of compact, walkable, mixed-use communities centered on a mass transportation system. Its components include development of pedestrian and cycling facilities connected to transport terminals and high-density, walkable districts within a 10-minute walk circle around the transport station.

Locally, this strategy can be pursued by integrating transportation planning in the development of the CLUP when mapping out a locality's various land uses. This will ensure efficient mobility and adequate accessibility, thereby reducing adverse impacts of motorization on communities.

Transit-oriented development has benefited cities around the world. Among its benefits include:

- Higher quality of life with better places to live, work, and play
- Greater mobility with ease of moving around
- Increased mass transit ridership
- Reduced traffic congestion, car accidents, and injuries
- Reduced household spending on transportation, resulting in more affordable housing
- Healthier lifestyle with more walking and less stress
- Reduced incentive to sprawl
- Increased incentive for compact development

Transit-oriented development, which creates dense, walkable communities with a lower need for driving and energy consumption, can also mitigate the serious and growing problem of climate change and global energy security.

2.2.2.10 Utilize adaptive reuse and urban infill to optimize existing spaces and structures in built-up areas

To ensure the preservation of heritage areas, the NUDHF encourages adaptive reuse for existing structures, and urban infill or the use of vacant lands or underutilized properties for urban revitalization.

Adaptive reuse breathes new life to heritage structures, so that they enrich the character of a city or municipality and can serve as centers of economic and cultural activity. While it may have a higher development cost than greenfield sites, it contributes to compact city development and neighborhood revitalization.

2.2.2.11 Promote planned urban expansion as a means to control urban sprawl

Compact, mixed use development can be complemented and made more effective by promoting planned urban expansion. Anticipating urban growth, setting boundaries to existing areas, and providing for rational expansion in selected areas will control urban sprawl and manage urban resources better. It will also aid in food security, maintenance of protected areas, and the integration and linkage of cities and municipalities in a coherent manner.

To ensure the preservation of heritage areas, the NUDHF encourages adaptive reuse for existing structures, and urban infill.



WORKING ON PLANNED CITY EXTENSIONS with the city planning office of Cagayan de Oro, one of the ASUD project's pilot cities.

BOX 6:

THE CASE OF ACHIEVING SUSTAINABLE URBAN DEVELOPMENT IN THE PHILIPPINES

As cities and metropolitan areas are presently challenged with the complex problems of urban development, UN-Habitat developed the Achieving Sustainable Urban Development Project to effectively support countries in achieving sustainable urbanization. The program envisions the development of innovative urban planning tools for physical and strategic urban planning with particular attention to city extension approaches especially amongst fast-growing intermediate cities. The Philippines has been selected as one of the five pilot countries globally, along with Egypt, Mozambique, Rwanda, and Colombia.

ASUD Philippines was a three-year project that sought to strengthen the capacities of national government agencies and cities in the Philippines by demonstrating innovative approaches in achieving sustainable urban development. It was implemented in four pilot cities namely: Iloilo, Silay, Zamboanga, and Cagayan de Oro. The cities were selected together with the key national government partners based on agreed criteria such as: potential for national and local government program funding to ensure sustained national support and investments in the medium-term; key role in regional planning and development; level of political leadership and commitment to the project; and local capacity and governance.

The project committed to deliver the following outputs:

- Improved planning and institutional capacities of the four pilot cities to enhance urban designs and policies promoting sustainable and resilient urban development
- Enhanced technical capacities and developed “planned city extension” of four pilot cities to demonstrate application of principles and tools on sustainable urban forms/designs.

Planning City Extensions

Innovations in concept and practice of urban planning have been tried with a number of countries and cities; however, they have not necessarily impacted broadly on urban planning as it is expected and pursued by national, local governments and even by urban planners themselves. In order to further advance innovations, five principles are being promoted by UN-Habitat under the ASUD:

- **Adequate space for streets and an efficient street network. The street network should occupy at least 30% of the land and at least 18 kilometers of street length per square kilometer**

- **High density: at least 150 people per hectare or 15,000 people per square kilometer**

- Mixed land-use: at least 40% of floor space should be allocated for economic use.

- **Social mix: promotes inclusiveness across all income groups and fosters cultural diversity. The availability of houses in different price ranges and tenures in any given neighborhood to accommodate different incomes**

- Limited land-use specialization: this is to limit single function blocks or neighborhoods; single function blocks should cover less than 10% of any neighborhood.

All of these five principles are integrated into the urban planning processes, with high consideration of local or city context to achieve the desired urban form. The application of the principles aims to develop urban areas over time that anticipates high density urban growth, reduces urban sprawl, and maximizes land efficiency. The end result of the urban design also expects to promote diversified, socially equal and thriving communities in economically viable ways. Because of its compact and connected pattern, the outcome also encourages walkability and reduces car dependency. And lastly, it provides a variety of lot sizes and housing types to cater for the diverse housing needs of the community/city, at densities which can ultimately support the provision of local services.

The City Extension Planning (PCE) approach was based on these principles and applied to the four pilot cities. It specifically involved the preparation of plans for city extension areas identified and defined by pilot cities. These plans are expected to guide the growth and development of the identified areas, thus ensuring a sustainable and inclusive development of the cities. The plans specifically entail the delineation of streets, blocks, lot parcels, as well as the designation of public space and areas for private development and community facilities. The urban design is complemented by an implementing strategy that details financing (incremental) and the needed legal and local legislation support to enhance the sustainability of the PCE.

The table below illustrates some of the value added of the PCE process in comparison to the old or business as usual urban planning practices of the pilot cities.

ASUD Principles	Iloilo		Silay		Cagayan		Zamboanga	
	Non-PCE	PCE	Non-PCE	PCE	Non-PCE	PCE	Non-PCE	PCE
Street area (30%)	28%	30.1%	7.0%	21.30%	8.81%	19.88%	19.40	29
Street density (18 km/square km.)	18.07	18.03	7.0	11.54	10.84	19.64	10.66	17
Public space (20%)	8%	17.1%	-	18.82%	14%	21.95	-	31
Density (150 persons/hectare)	104	343	10	145	27	505	70	283

2.2.2.12 Extend capacity development programs and projects to integrate the reduction of greenhouse gas (GHG) emissions at the local planning level

Urban planning and design must integrate low-emission development principles and strategies. Building national and local planners' capacity to understand the GHG mitigation options along with the adaptation elements of urban plans and designs are now more essential to ensure that people will indeed live in economically, socially, and environmentally sustainable communities.

In the formulation of local development plans such as the CLUP, Comprehensive Development Plan (CDP), and LCCAP, planners should consider energy efficiency in both electricity use and transmission. Understanding the emission baseline of such sectors at the national and local levels could help improve practices in developing and managing buildings, public spaces, roads and area connectivity. Integrating low-emission considerations in urban development will contribute not only in lowering GHG emissions, but also in the transition to a more cost-effective urban system that delivers socio-economic gains.

2.2.3 Housing

The 1987 Constitution of the Philippines mandates "the State...for the common good, [to] undertake, in cooperation with the private sector, a continuing program of urban land reform and housing which will make available, at affordable cost, decent housing and basic services to underprivileged and homeless citizens in urban centers and resettlement areas." The Philippines, by ratifying the International Covenant on Economic, Social and Cultural Rights has also committed to progressively achieve the full realization of the right to adequate housing. The Advisory on the Right to Adequate Housing and Humane Treatment of Informal Settlers issued

by the Commission on Human Rights of the Philippines on September 2011 stipulated the conditions that constitute adequate housing. These are: security of tenure, availability of basic services, affordability, habitability, accessibility, location, and cultural adequacy.¹³

The challenges in achieving the conditions mentioned above under the mandate given to the government has prompted the review of the government's perspective on housing and urban development. The NUDHF recognizes housing not merely as a standalone effort, but as an integral part of an overall urban framework. Housing provides an entry point through which integration of settlements and urban systems can occur.

The strategies will ensure access for all to adequate, safe, resilient, and affordable housing and basic services, and upgrade slums¹⁴ with special attention to the needs of vulnerable populations. They will also: help in properly managing settlements in disaster-prone and vulnerable areas¹⁵; facilitate sustained funding for housing and access to land for poor/low income families; and support institutional structures such as local housing boards.

2.1.3.1 Develop inclusive, integrated housing

Housing development should be culturally sensitive and must adhere to appropriate standards and design. It should pay special attention to the needs of those in vulnerable situations, including indigenous people, persons with disabilities, elderly, ISFs, internally displaced population from disaster stricken or internal conflict areas, women, and children, among others. Mixed income housing is encouraged to promote inclusive communities.

Settlements, including those developed under government resettlement programs, should have access to basic social services, facilities and infrastructure; and safe, affordable, and sustainable transport systems that link them to employment centers and livelihood

¹³ Habitat III, Philippine National Report (October 2016).

¹⁴ SDG 11 target and Habitat III, Philippine National Report (May 2016).

¹⁵ Asian Development Bank, Philippine Urban Assessment (2014).

BOX 7: INNOVATIVE HOUSING PROGRAMS

In lieu of National Housing Authority programs, informal settlers living in Metro Manila's danger zones may opt to avail of High Density Housing, a financing program of the Social Housing Finance Corporation (SHFC) for organized communities eligible for in-city, near-city, or near-site housing relocation. Overall, however, the Community Mortgage Program (CMP) remains SHFC's banner program for low-income and pro-poor housing and is anchored on the principle of self-help. Before they can avail the benefits of Community Mortgage Program, beneficiaries must first organize and register as homeowners' associations under the HLURB (R.A. 9904). As a financing mortgage program for underprivileged citizens, CMP caters to members of organized and legally registered community groups to help them secure tenure on the land they occupy by purchasing it or purchasing land in another area for them to live in. The program also finances basic services and the incremental build-up of members' houses.

The Localized Community Mortgage Program (LCMP) is another SHFC financing program. It enables local governments to avail of an Omnibus Commitment Line, up to a maximum of PHP 50 million, in order for them to implement priority socialized housing projects. Loans under both the CMP and LCMP are payable over a period of 25 years, at an annual rate of 6%. Through the NHA and SHFC programs, a total of 736,537 (49%) of low-income households and ISFs have been assisted by the Philippine government from 1996 to 2013 (Habitat III, Philippine National Report, May 2016). CMP beneficiaries, however, call for reducing high transaction costs, as well as for speeding up processing of requisite permits.

opportunities. The Housing and Urban Development Coordinating Council (HUDCC) or future coordination of the Department of Housing and Urban Development with the Department of Transportation, Department of Public Works and Highways, and Department of Education should more closely examine housing needs, with and coordinate programs to ensure connectivity of the urban poor to centers of activity and opportunity.

2.2.3.2 Improve affordability of housing programs and projects

The Family Income and Expenditure Survey¹⁶ indicates that during the first semester of 2015, a family of five needed at least PHP 6,365 on the average every month to meet the family's basic food needs, and at least PHP 9,140 on the average every month to meet both basic food and non-food needs, including housing. As indicated in the Family Income and Expenditure Survey of 2012, of the total 1.5 million renters across the country, about 20% that comprise the lowest income

percentile can only afford less than PHP 1,000 for housing while the next two percentiles, 32% and 30%, can only afford PHP 1,000-1,999 and PHP 2,000-3,999, respectively.

The NUDHF encourages the improvement and expansion of housing finance programs, especially those that focus on community-based planning and self-help such as the Community Mortgage Program.

More importantly, improving affordability through housing finance must be coupled with initiatives to increase families' capacity to pay. This means introducing and fully integrating sustainable livelihood and employment into the housing process, and looking at economic development as a function of shelter delivery. Operationally, this translates to the implementation of an integrated housing strategy requiring the collaboration of shelter, economic and social welfare agencies beyond their current or traditional mandates.

¹⁶ Philippine Statistics Authority, Family Income and Expenditure Survey (2015).

2.2.3.3 Promote resilient housing

In the Philippines, the challenge of meeting current and future housing demand is aggravated by the need to address climate change and natural hazards that pose risks to households. Resilience is a paramount action needed to protect investments in housing and ensure sustainability.

Where the poorest are often most vulnerable, housing finance, security of tenure, and insurance can guarantee household and community resilience.

Climate resilient and affordable housing can also be achieved through appropriate housing standards or building codes and affordable technologies and innovations, as well as through retrofitting of existing housing structures based on climate change and disaster risk assessments.

Local climate change action plans and disaster risk management plans must consider resilience at the household level and be made consistent with the local shelter plan, in order to ensure that other key shelter development aspects such as affordability and shelter finance are taken into account and planned accordingly.

2.2.3.4 Enforce the balanced housing provision of the Urban Development and Housing Act of 1992 (UDHA)

Republic Act No. 10884, which amends the UDHA, requires owners and developers of proposed subdivision and condominium projects to develop an area for socialized housing equivalent to at least 15% of the total subdivision area or total subdivision project cost, and at least 5% of condominium area or project cost. Significant in this

amendment is the inclusion of vertical housing developments in socialized housing compliance. It must be noted that these are minimum requirements, and developers may opt to increase the percentages.

2.2.3.5 Update appropriate housing unit size requirements based on local context

Minimum standards are currently implemented for lot area, floor area, and level of completion of housing units.¹⁷ While economical in the use of limited space, these have also been criticized as inadequate to provide livable, healthy, and safe housing. Local governments and developers are encouraged to further assess the needs of end users with regard to their space requirements, without income discrimination and considering various factors such as location, culture, economic linkages, and livelihood opportunities, among others. People-centered planning processes can address this gap, and allow stakeholders to determine appropriate unit sizes.

BOX 8: LOW-RENT UNITS – A CHINA EXAMPLE

Some jurisdictions have regulations that require developers to produce a certain percentage of smaller sized units in each development. In 2007, the State Council of China deemed that at least 70% of the land to be used for construction of urban housing should be designated for residential purposes for low-rent units, and smaller units of less than 90 m². This is a move aimed at providing adequate housing for the urban poor, against the backdrop of surging housing prices. In addition, a low-rent housing guarantee policy took effect on December 1, 2007, to help the ten million low-income urban families, whose living space was less than 10 m² per person, accounting for 5.5% of the nation's combined households.

¹⁷ Minimum lot area. For single detached houses, the minimum lot area requirement for socialized housing under BP 220 is 64 square meters. Under PD 957, the minimum lot area requirement for single detached is 72 square meters for economic housing; 100 square meters for medium cost housing and 130 square meters for open market housing.
 Minimum Floor Area. For the shelter component, the minimum floor area for single detached socialized housing under BP 220 is 18 square meters, while for PD 957 it is 22 square meters for economic housing, 30 square meters for medium cost housing and 42 square meters for open market housing.
 Level of completion. Under PD 957, economic, medium cost and open market housing require a complete house based on submitted plan specifications for all types (single detached, duplex, and row house). Under BP 220, socialized housing allows a shell house with doors and windows to enclose the unit, no enclosures for living areas except for the toilet and bath. This allows the socialized housing buyer to upgrade his house at his own affordability pace.

BOX 9: EXAMPLES OF UNUSED/UNDERUSED GOVERNMENT-OWNED LAND

Current initiatives can be improved by requiring private developers to construct affordable and mixed income housing in lands they purchase from the government. The proposed sale of Camp Aguinaldo, strategically located next to the Santolan Metro Rail Transit (MRT) station, would be a great demonstration. The redevelopment of the Quezon City Central Business District also remains to be an opportunity if the city requires mixed-income housing on site. The proposed Clark Green City of the Bases Conversion and Development Authority (BCDA) could likewise provide an entirely new model for the country by creating inclusive housing developments.

2.2.3.6 Make land available and accessible for housing

There are several ways to increase the supply and reduce the cost of urban land, thereby addressing physical and artificial shortage of land for development.

a. Unlocking unused or underused government-owned land

Malacañang has directed the concerned government agencies and government-owned and -controlled corporations to submit an inventory of their idle lands, and identify the sites in these lands that can be used for socialized housing. Housing programs will then be implemented through public-private partnerships.

b. Land pooling/readjustment

Land pooling or readjustment combines small land parcels into a larger land area for efficient subdivision and development. Once improvements such as infrastructure or public spaces are made, the reconfigured land is returned to the owners who usually receive smaller, but significantly more valuable, plots.¹⁸

The NUDHF recommends this approach to increase people's access to spaces for housing security as well as social and economic opportunity. It will also aid in creating settlements that are integrated and coherent, with appropriate infrastructure and rational planning.

c. Land banking

Land banking refers to the acquisition of land at values based on existing use in advance of actual need, to promote planned development, redevelopment, and socialized housing programs.¹⁹ It can also be used to contain land speculation, redistribute land to the poor, and finance infrastructure investments.²⁰

d. Land cost adjustment for affordable housing

Housing can be made more affordable, particularly in peripheral areas, by providing land at lower than market cost in return for an agreement to produce lower cost housing or more small-sized affordable units. Ideally, low-income housing should be mixed with middle-income housing to create a more diverse community and to enable households to upgrade their housing within the community, such as through long-term land banking and lower-cost leasing of government land.

e. Reduce land speculation through fiscal measures²¹

Rapid housing price increase due to land speculation restricts access of lower-income groups to housing. While government interventions in housing markets should be approached with caution, imposing fiscal measures may help reduce speculation.

Key measures could include: (i) increasing tariffs imposed for idle land, to encourage owners to develop their lands; (ii) adjusting capital gains taxes on the sale of land and property to curb rapid increases in the cost of property; (iii) imposing higher

¹⁸ World Bank Institute, Innovative Land Tool Series, "Sustainable Urban Land Use Planning" (Oct.-Dec. 2015).

¹⁹ Housing and Urban Development Coordinating Council, Implementing Guidelines for the Acquisition, Valuation, Disposition and Utilization of Lands for Socialized Housing (1993),

<http://www.hudcc.gov.ph/sites/default/files/styles/large/public/document/Acquisition%20Valuation%20Disposition.pdf>.

²⁰ UN-Habitat, Enabling Shelter Strategies: Design and Implementation Guide for Policymakers (2011).

²¹ World Bank Institute, Innovative Land Tool Series, "Sustainable Urban Land Use Planning" (Oct.-Dec. 2015).

interest rates for property loans, which will have the same effect; and (iv) reducing inheritance tax for properties intended for socialized housing.

and other actors, in particular NGOs and the private sector, is an essential element of the enabling approach.²³

2.2.3.7 Promote alternative forms of tenure

The NUDHF recognizes the value of providing security of tenure for urban settlers, both formal and informal. As policy reforms move toward improving land management and land valuation, rights-based instruments or other forms of secure tenure instruments – such as usufruct, other lease variants, and right to occupy or build – are now recognized as collateral substitutes. Rights-based instruments offer a less costly approach to providing secure tenure to segments of society unable to secure freehold titles, particularly the urban poor.²²

2.2.3.8 Promote local shelter planning to encourage broad-based participation and ensure implementation of housing and land strategies

Citizen participation and localized capacity serve as foundations for effective and efficient shelter provision. Empowering communities also increases accountability and transparency in the implementation and monitoring of housing strategies.

Local shelter planning enables LGUs to determine housing needs, conduct inventory of resources, identify priority housing programs and projects, and initiate necessary partnerships for housing projects.

Communities must be involved and empowered in realizing their housing goals. Community-based or people’s plans encourage wider and deeper participation from all urban stakeholders. This also includes incorporating indigenous knowledge systems and practices in the planning process, including climate change action and DRRM. Effective cooperation between government

BOX 10: BENEFITS OF LAND POOLING/ READJUSTMENT

- No Displacement: Landowners can remain on the land; there is no need for compensation for resettlement (no compensation if there is no displacement pursuant to the policy on relocation).
- Home Owners Association as sanctioned by HLURB under Republic Act. No. 9904: individual landowners must agree for the land pooling/readjustment scheme to work; here is less outright coercion than with eminent domain or takings.
- Political/Community Acceptance: because displacement and compensation issues are minimized, land pooling/readjustment can be appealing to various constituencies.
- No Large Government Outlay: scarce public resources do not have to be spent on infrastructure improvements. Rather, the increase in land values after the project and sale of some of the serviced plots covers initial costs.
- Increased Future Revenues: higher value and more intensive land uses can increase local property tax revenues over time consistent with the Comprehensive Land Use Plan (CLUP) and Zoning of the LGU.
- Orderly Development: land pooling/readjustment brings development to land on the urban fringe in an orderly way with a unified process of planning, servicing, and subdivision.
- Environmental Benefits: land reconfiguration often results in improved shape of land parcels, better road access, and provision of open space.
- International Experience: A number of countries such as Germany, Japan, and South Korea have used land pooling/readjustment for many decades. This knowledge can be transferred to places where the practice is not widely adopted.

²² Asian Development Bank, Philippine Urban Assessment (2014).

²³ Erhard Berner, “Learning from informal markets: Innovative approaches to land and housing provision,” Development in Practice 11, no. 2 (May 2001): 292-307.



The NUDHF recognizes the value of providing security of tenure for urban settlers, both formal and informal.

BOX 11: LOCAL SHELTER PLANNING

The Local Shelter Planning Manual developed and updated by the HUDCC is a useful and detailed planning tool that can benefit LGUs in addressing their shelter needs. It is a detailed and step by step manual that supports local planning initiatives and promotes the participation of the broad duty bearers and claim holders.

Updated by the HUDCC in 2016 and with technical assistance from the UN-Habitat, the Local Shelter Planning Manual is a relevant tool for data gathering, situational analysis, goals and objective setting and strategy formulation. The manual also elaborates the importance of monitoring and evaluation of housing programs and projects. To cater to the complexity of housing issues, the manual adheres to key principles such as local decision making and empowerment, rights-based approaches, inclusive participation, capacity development, sustainability and resilience, among others, as strong foundations in developing local shelter plans.

With the housing needs of 5.5 million at the national scale (HUDCC estimate, 2016), the manual is a powerful tool in capacitating the LGUs to address the chronic housing issues.

2.2.3.9 Operationalize the National Informal Settlements Upgrading Strategy

The National Informal Settlements Upgrading Strategy includes directions of change and reform that can be pursued by the government.

The directions are as follows:²⁴

- Upgrading informal settlements within an urban renewal/regeneration framework, urban development and housing to occur guided by long-term spatial planning and guidelines by the national or local governments;
- Demonstrating model schemes that exhibit improved housing construction, integrating CCA and DRR;
- Targeted resettlement of households actually living in danger zones as opposed to blanket resettlement of ISFs;
- Rationalized and effectively targeted capital subsidies;
- Rights-based alternatives for informal settlers living on government property such as land lease under renewable 25- to 50-

year leases with options to purchase at any time, or usufruct arrangements;

- Adopting market-based approaches to housing finance and production;
- Microfinance and community finance as alternatives in the provision of housing and infrastructure for informal settlements;
- Enabling local governments to lead urban renewal efforts, including partnerships; and
- Public access to alpha listing of housing beneficiaries, to enable quick action especially from government and private entities engaged in urban poor housing.

There is a need for strict implementation and monitoring of housing programs and projects, as well as sanctions for agencies remiss in implementing their mandates. Imposition of sanctions shall be in accordance with existing laws and policies, as applicable.

²⁴ Housing and Urban Development Coordinating Council, National Informal Settlements Upgrading Strategy (2014).

Mobilizing resources, including those from the private sector, would allow government flexibility in developing and implementing high capital outlay infrastructure projects.

2.2.4 Urban Infrastructure and Basic Services

For a system to thrive, it must be structured so that all components perform efficiently, and are functionally linked to achieve overall productivity while maintaining capacity. Philippine urban systems are disjointed and inconsistent, in part due to weaknesses in infrastructure. These include limited water supply, underutilized energy sources, the stark absence of open spaces, gaps in waste management, and the lack of transport integration, among others. The NUDHF outlines strategies to address these issues.

2.2.4.1 Water and sanitation

a. Streamline policies and improve the regulatory framework to ensure sustainable water security in urban areas

Water and sanitation infrastructure must be harmonized with legislation, policies, and organizational development plans. Simplifying the regulatory framework from the approval of water and sanitation plans to maintenance will enable proponents to protect, explore, develop, and expand water and sanitation services for the larger

urban system. Implementing programs and initiatives on watershed protection can serve to secure water availability through a collaborative, multi-stakeholder approach to managing water quality and quantity by various means throughout the watershed, from the upstream areas all the way to the mouth of the river and the ocean that it drains into.

b. Promote and support innovative water and sanitation technologies

Cost-efficient, alternative technologies in water and sanitation, including water recycling should be supported. This entails investment in research, prototyping, and fully developing technologies, especially localized solutions.

c. Support financing for climate and disaster-resilient water and sanitation infrastructure

Identifying financing sources for infrastructure projects is one of the crucial responsibilities of national and local governments.

Mobilizing resources, including those from the private sector, would allow government flexibility in developing and implementing high capital outlay infrastructure projects. Replicating and improving on the successes of privately managed water utilities will further strengthen resilience of urban water infrastructure.

d. Strengthen local government capacity on water and sanitation governance

Capacity building programs should be in place for national, regional, and local water and sanitation personnel, in critical areas like: coordination with national governmental agencies and other government entities; planning, project development, and decision-making; budgeting; and private sector engagement.

In partnership with the academia, technical, professional, and managerial courses should be in place to develop highly qualified individuals that can be assigned to management and technical positions for regulating and maintaining

water and sanitation infrastructure. Alternative learning platforms should be explored through facilitating the public's access to learning opportunities such as online courses and the creation of research and innovation laboratories in partnership with academia and civil society.

2.2.4.2 Energy (sustainable/renewable)

LGUs have a central role in addressing climate change by implementing low-emission development strategies. This can be achieved by consciously taking into consideration GHG emissions in their development processes. A primary focus would be the energy sector, where policy measures and programs based on low-emission development strategies can help communities shift to more sustainable technologies and projects.

a. Increase energy sourcing from low-carbon and other clean energy technologies

The government should adopt measures that promote a better energy mix, thereby increasing energy sourcing from low-carbon and other clean energy technologies. Identifying and mapping renewable energy resources then become a key technical concern for LGUs. With technical support, local governments can pursue proper

identification of land use requirements for renewable energy investments.

b. Streamline procedures for the development of renewable energy projects, to improve ease of doing business

This requires reducing the requirement and processing time, revisiting investment and business application procedures, adjusting them to ease start-up and operations costs, and therefore boosting the number of domestic and foreign investments in the sector.

c. Promote energy efficiency

LGUs can also adopt measures that promote more efficient energy consumption, for instance in work areas, public buildings and settlement sites. Energy efficiency should be considered in settlements planning, building design and construction, and transportation.

d. Explore and implement technology research and funding mechanisms that support small-scale renewable energy projects

It is necessary to develop appropriate technology and financing in support of renewable energy for use by micro, small

INFRASTRUCTURE ISSUES include limited water supply, underutilized energy sources, the stark absence of open spaces, gaps in waste management, and the lack of transport integration.



Photo © Peter Friginal

and medium enterprises (MSMEs) and cooperatives, as well as housing and settlements development. This will help reduce the demand for fossil fuel and empower communities to produce, supply, and manage renewable energy.

Encouraging development of alternative domestic power sources, to augment existing supply sourced from the grid, is also imperative.

2.2.4.3 Drainage

a. Build a comprehensive database of drainage and waterways

It is necessary to conduct a comprehensive mapping of natural waterways, drainage, and sewerage systems, including waterways that have been built over. Mapping natural waterways would assist planners in identifying blue and green spaces for land use planning, as well as urban renewal and systems-upgrading programs.

b. Improve public investment in infrastructure for drainage networks

There is a need to improve public investment in infrastructure for drainage networks, sewerage systems, and water treatment plants, taking into consideration

sound analyses of population growth and infrastructure demand, climate change, and disaster risk. In addition, it is necessary to ensure sustainable financial investment by designing and implementing long-term drainage infrastructure projects.

c. Ensure use of local climate change and disaster risks projections in designing drainage networks and related infrastructure

The Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) 2020 and 2050 climate projections must be considered in all drainage planning through constant coordination between the government and the private sector.

2.2.4.4 Waste management

In line with the principle of spatially and thematically integrated settlements within coherent and efficient urban systems, the following are key strategies to consider in establishing comprehensive and efficient solid and liquid waste management systems.

a. Encourage community-based waste management programs

As successful waste management is about influencing human behavior to respect rules and to protect the environment and the community's welfare, local governments will benefit most from community-based solid waste management programs in accordance with applicable legislation and policies. This could also involve providing incentives to community stakeholders for using Material Recovery Facilities, or for limiting garbage volume at source. This is possible through advocacy and education. Cities should also explore and develop composting and vermiculture as waste byproducts, which can be used for urban agriculture.

Meanwhile, citizens should be able to review or reject proposals for industrial, commercial, or residential projects that may affect water systems.

Successful waste management is about influencing human behavior to respect rules and to protect the environment and the community's welfare.



Photo ©UN-Habitat

IMPROVING PUBLIC INVESTMENT in infrastructure for drainage networks, sewerage systems, and water treatment plants is critical.

b. Adopt modern technology and systems in monitoring solid waste management programs

The government must welcome the use of better technology to make waste management more efficient, for instance in monitoring of waste disposal activity, scheduling, and volume tracking. Cities are also encouraged to invest in alternative green filtration systems and natural filters to cleanse waterways, which can be part of the spatial strategy and urban design – as in the case of endemic grass-wetland species used for gray waste water treatment systems in riverfront development. This also complements resilience measures, and raises public appreciation for better and more appropriate infrastructure systems.

c. Develop inter-LGU coordinated waste management plans for efficient regional mobilization of resources.

Metropolitanization and similar aggrupations can act as catalysts in maximizing resources for public

infrastructure and services, particularly in urban waste management as well as biosolid management for agriculture. Coordinated site planning for sanitary landfills is cost-efficient and effective given land constraints in urban areas.

2.2.4.5 Information and Communications Technology

The use of information and communications technology (ICT), including social networking, must be explored to further enhance the transparency and accountability of urban governance mechanisms, and to support an integrated and efficient urban system. ICT applications should also be considered in improving urban data collection, retrieval, and analysis.²⁵ Actions that can be taken to this end include:

a. Open up Investments in ICT

The NUDHF recommends a review of competition laws to open up investments in the telecommunications sector and allow more service providers. This will address constraints arising from the current duopoly²⁶ set-up, which has hindered the entry of alternative service providers.

b. Establish a national broadband network infrastructure

A national broadband network infrastructure would enhance public access to state services and global information that is free and open. Allowing the government to establish its own broadband network in order to provide free public Internet access is not in direct competition to services offered by the private sector. Rather, it will supplement areas that have not yet been penetrated. Internet access will no longer be a luxury for the few, but a basic right of citizens. It will also encourage greater community participation through communication and connectivity.

²⁵ UN-Habitat Philippines, *Habitat III: The Philippines National Report* (Manila, 2016), 117.

²⁶ A duopoly is market capture of only two corporations essentially controlling service quality and pricing.

The NUDHF advocates an integrated urban economy, one that incorporates sustainable growth strategies as generally suggested the CLUP guidelines.

c. Ensure access to government-owned data, including geospatial data, in order to improve planning and ensure transparency and accountability in government services

The Internet is an equalizing tool for big data analysis and geospatial services, which aids planners and decision-makers in crafting better development strategies and recommendations. Online government transactions and services at the national and sub-national levels are also encouraged, along with full implementation of open data policies to expedite the release of information in the public domain.

d. Utilize ICT in the development of smart cities and improvement of services to support transport and disaster planning.

GPS-enabled public transport utilities allow efficient monitoring and route planning. Humanitarian logistics planning would benefit from a connected city with real-time data access.

2.2.4.6 Ensure efficient and safe urban transportation infrastructure in support of enhanced mobility

The development of urban transportation infrastructure must be anchored in three key performance indicators:

- Efficiency: in transportation, this can be measured in three ways - time, energy, and cost.
- Sustainability: for transport development, sustainability has three components – environmental, economic, and social.
- Resilience: a resilient transport system is an absolute requirement for the protection of communities.

To ensure the best quality of life of the community, as well as to enhance the competitiveness of cities, there are three requirements:

1. Improve the linkage between land use and transportation systems.
2. Maintain a balance between transportation-related energy use and clean air.
3. Encourage alternative modes of transportation that enhance energy efficiency, while providing high levels of mobility and safety.

Government should also facilitate inter-LGU agreements for mass transit and freight movement, particularly in anticipation of stepped-up trade in an economically unified Association of Southeast Asian Nations (ASEAN) region. Infrastructure for the movement of goods and people from key port cities throughout Mindanao, onwards to the Visayas and Luzon, is critical. Such regional interconnectivity should contemplate intermodal seamlessness—particularly for marine vessels and aircraft.

2.2.5 Urban Economy and Finance

Urban economic growth and development aim to improve the quality of life of all people and contribute to national and local sustainable development. It must be inclusive and recognize the right of all to decent work and

productive economic opportunities, including the informal economy.

The national government should promote an enabling environment for local governments to have access to significant sources of tax and non-tax revenues to achieve revenue sufficiency and diversity. A viable, strong, and responsible fiscal position can fuel a municipality's ability to deliver services to its constituents and implement appropriate strategies to achieve economic development. The government must establish a framework that enables LGUs to augment their financial resources and access revenue-raising instruments like borrowing, public-private partnerships, and land-based financing mechanisms.

ECONOMY:

2.2.5.1 Promote connectivity of economic activities

The government should strive for balanced economic development that connects progressive and lagging/depressed areas of the country, while recognizing the strategic advantages and core competencies of urban centers and their role in overall national and regional development.

The NUDHF advocates an integrated urban economy—one that incorporates sustainable growth strategies as generally suggested in the Comprehensive Land Use Plan (CLUP) guidelines.

To this end, systems-based economic models can be adopted to enhance forward and backward economic linkages between and among key cities or metropolitan areas, and smaller cities and municipalities. Practical applications for the economy would be value chain development of local economic activities, or cluster-based industrial development approaches, which necessarily influences urban form.

Looking at the economy from a systems perspective should also lead to appropriate interventions that enhance linkages and support economic growth areas, including: focused improvement of the workforce to support key industries as well as MSMEs; better sourcing of production materials for manufacturing; improvement of production and distribution systems; and better transport-land use integration.

2.2.5.2 Provide key infrastructure to support economic growth and development

Adequate public investment in infrastructure development is a key to facilitate vibrant

“Address the job and skill mismatch problem by promoting better coordination between employers, academe, and the government, and by strengthening both public and private sector labor market information and exchange institutions, especially at the local levels.”

FRAMEWORK

businesses and communities in order to move goods, services, and people, as well as enhance connectivity and interconnectivity.

The provision of infrastructure within the city is necessary to its efficient and equitable functioning. Infrastructure development is a necessary condition to make cities competitive. Physical infrastructure needs to be in place to provide basic urban services such as electricity, water, communication, and waste management facilities. Roads and bridges, airports, and seaports should promote connectivity in the movement of people, goods, and services. Social infrastructure and social services such as schools, hospitals, shops, public transportation, police and fire stations, and recreational facilities are necessary to address the needs of all people towards creating sustainable communities.

Promoting private sector investments, partnerships, and new alliances is also necessary. With a low level of investment at only 7% of GDP, the creation of an investment-friendly and enabling environment that would attract new investors is necessary in order to encourage the private sector to invest in local infrastructure and work in partnership with national and local governments.

Strategies to make cities competitive areas for investment include:

- a) Allowing easy access to land market information for new investors/locators in identified growth centers or town centers, as delineated in the CLUP;
- b) Creating a special unit, such as an Investment Promotion Office within the local government unit, to focus on economic and investment promotion;
- c) Simplifying and streamlining rules and regulations to decrease the time needed to process business registration, as well as business entry and exit;
- d) Providing appropriate and targeted investment incentives;



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- e) Strengthening the capacity of local governments to promote, manage and monitor public-private partnerships;
- f) Building investors' trust by encouraging local governments to improve their fiscal performance; and
- g) Maintaining peace and order.

MICRO, SMALL, AND MEDIUM enterprises are a key economic growth area.

2.2.5.3 Enhance competitiveness of the workforce

Maintaining and expanding a competitive workforce is key for a healthy economy. Main challenges in urban economic development are: assisting cities in generating more jobs and productive work opportunities; enhancing existing jobs and livelihoods; and ensuring that all citizens have access to income earning opportunities, all of which depend on the health of urban economies and inclusive processes. The Philippine Labor and Employment Plan 2011-2016 aimed at Inclusive Growth Through Decent and Productive Work outlined the strategies to achieve these. Strategies to decrease unemployment and enhance the employability of the members of the workforce include the following:

a. Expanding of the Technical and Vocational Education and Training

Along with LGUs, the Technical Education and Skills Development Authority (TESDA) may implement community-based Technical and Vocational Education and Training programs, where the skills of the members of the labor force can be upgraded or retooled. TESDA can also partner with the private sector, considering the demand for labor in their particular enterprises.

b. Address Job and Skill Mismatch

Address the job and skill mismatch problem by promoting better coordination between employers, academia, and the government, and by strengthening both public and private sector labor market information exchange and institutions, especially at the local levels.²⁷

Beyond matching educational qualifications with the current demand for labor, education programs should promote core competencies, critical skills, and creativity to support the economic and development thrusts and strategies of the country and local governments. Given that about

one million unemployed persons are college graduates, it is essential for the Commission on Higher Education (CHED) to make an assessment of the existing curriculum and develop the appropriate courses that respond to current demand for labor, as well as provide the foundation for development goals.

c. Enhance the Alternative Learning System

The scope and coverage of the Department of Education Alternative Learning System mode may be enhanced to build the capabilities and productive capacities especially of out of school youth and adults who did not complete their basic education, in order to enhance their human capital and enable them to become gainfully employed.

d. Implement the Philippine Qualifications Framework

The full implementation of the Philippine Qualifications Framework will benefit various sectors and stakeholders of education and training, particularly in:

CITIZENS' ACCESS
to income earning opportunities depends on the health of urban economies and inclusive processes.



²⁷ Department of Labor and Employment, Philippine Labor and Employment Plan 2011-2016 (Manila, 2011).

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FRAMEWORK

- Encouraging lifelong learning of individuals;
- Providing employers specific training standards and qualifications that are aligned to industry standards;
- Ensuring that training and educational institutions adhere to specific standards and are accountable for achieving the same; and
- Providing the government with common standards, taxonomy and typology of qualifications as bases for granting approvals to stakeholders.²⁸

2.2.5.4 Strengthen key economic sectors

A resilient and sustainable local economy should be diversified and have a wide range of business ranging from micro to small, medium and large enterprises. Local entrepreneurship and sustainable livelihoods should also characterize the local economy, including the informal economy.

Manufacturing

Gross value added from manufacturing amounted to about PHP 2 trillion from 2008 to 2013. Food manufacturing contributed less than half (44%) of gross value added for the sector. The other high contributors to gross value of manufacturing included the production of: radio, television and communication equipment; petroleum and other fuel products; and chemical and chemical products. Nonetheless, issues and concerns continue to pervade the enhancement of the manufacturing sector, including the lack of qualified skilled manpower due to incompatibility of educational qualifications with demand in industrial firms, diminishing raw materials for handicrafts manufacturing, and environmental degradation due to manufacturing activities.

The following strategies may enhance the manufacturing sector:

- a. Strictly implement environmental laws pertaining to operations of manufacturing firms, especially in urban areas where manufacturing wastes and pollution directly affect a greater number of people and degrade already-stressed natural ecosystems;
- b. Review existing technical, vocational, and tertiary education curriculum to determine their compatibility with the demand for manufacturing activities;
- c. Establish and strengthen rural-urban linkages and value chains for manufacturing activities; and
- d. Apply innovative zoning to support the growth of the industry, while ensuring environmental sustainability. This can include performance-based zoning using energy, sustainable design, and environmental quality parameters within special economic zones.

MISMATCH BETWEEN EDUCATION and industry demands, diminishing raw materials for handicrafts, and environmental degradation are some of the challenges of the manufacturing sector.



Photo @Peter Friginal

²⁸ Executive Order No. 83, Series of 2012.

Tourism

The number of tourist arrivals in the country increased from 1.8 million in 2001 to 4.7 million in 2013, or at an average annual growth rate of 8.5%. Total visitor receipts likewise increased from USD 1,723 million in 2001 to USD 4,398 in 2013, at an average growth rate of 11.7% per year. Despite relatively high growth rates, the figures are still way below the overall target of the Department of Tourism (DOT). The tourism industry identifies several challenges, including: the need to increase tourist arrivals and receipts and improve tourism product offerings; the lack of infrastructure in and capacity of areas identified as venues for meetings, incentives, conferencing, and exhibitions; and the limited capacity of key cities to simultaneously hold big international events.

Strategies to address this include the following:

- a. Critically assess existing tourism assets, including the costs and benefits of investing in tourism infrastructure;
- b. Increase accessibility and connectivity of existing and potential tourism areas through physical infrastructure development, especially airports, seaports, roads and bridges, terminals, and other transportation facilities;
- c. Build capacities of LGUs to optimize the strategic position of cities as transit hubs, and provide suitable facilities and amenities such as accommodation, resort hotels, lodging houses, and affordable sleeping quarters, as well as services that include well-trained tourist guides;
- d. Improve telecommunications infrastructure and services to enable better marketing of tourism sites, i.e. through social media; and
- e. Provide strict guidelines for the development of tourism areas, based on environmental impact assessments, cost-benefit and related economic analyses, and centered on cultural acceptability.

ICT has become and will continue to be an integral part of the day-to-day life of every Filipino across all levels of society.

Business Process Outsourcing

ICT has become and will continue to be an integral part of the day-to-day life of every Filipino across all levels of society. A key focus of the Philippine Digital Strategy 2011-2015 is the continued growth of the IT/business process outsourcing industry and extending the benefits outside Metro Manila and Metro Cebu, so as to fast-track national development and provide opportunities for investment and jobs to other regions in the country. It also provides a mechanism to enable MSMEs to develop their capacity to use the Internet as a market expansion tool. Through public-private partnerships and investments in research and development, business incubation facilities will be encouraged. Lastly, this element will focus on enabling other industry sectors in the effective use of ICT for efficiency, innovation and competitiveness. The need to be prepared and take on higher paying business process outsourcing activities is a key concern if the intention is to increase compensation of workers. This, however, would require necessary skills. Another identified issue is compliance of business process outsourcing establishments with existing labor laws, e.g., payment of appropriate wage rates for workers under night shifts.

The following are strategies to address the needs of the business process outsourcing industry:

- a. Implement the Philippine Digital Strategy developed by the ICT sector. This includes “Broadband Internet access and integration of ICT in curriculum across all levels of our education system will be a priority to ensure that the shortfall of a skilled workforce will be addressed, thereby ensuring that our global leadership, particularly in the Business Process Outsourcing /Knowledge Process Outsourcing /Creative Process Outsourcing sectors, will be sustained”;
- b. Training more members of the workforce to take on higher paying business process outsourcing activities such as software publishing and motion picture, television, and video programs, among others;
- c. Encouraging students to take relevant courses to address the needs of business process outsourcing; and/or elective subjects in foreign language; and
- d. Strict implementation of labor laws.

Urban Agriculture

Urban areas and cities are highly vulnerable to disruptions in food production from other areas. As such, it is imperative to support rural agricultural development to ensure sustained production of the country's basic agricultural and fisheries commodities, coupled with the promotion of urban agriculture. Promoting urban agriculture would aid in ensuring food security in cities, noting that consumption is considerably the highest in urban areas.

Various programs and initiatives could be launched to engage urban dwellers to maximize open and green spaces for production by planting vegetables, fruits, and other food crops. Where spaces are limited, rooftop gardens, vertical gardens, and small area gardening could help production of food

BOX 12: WHAT ARE GREEN JOBS?

Green jobs include jobs that help to protect ecosystems and biodiversity, reduce energy, materials and water consumption through high efficiency strategies, decarbonize the economy, and minimize or altogether avoid generation of all forms of waste and pollution. Green jobs are decent jobs that are productive, respect the rights of workers, deliver a fair income, provide security in the workplace and social protection for families, and promote social dialogue. (Republic Act no. 10771, An Act Promoting the Creation of Green Jobs, Granting Incentives and Appropriating Funds Therefor)

sources. More aggressive actions on designating urban production areas could likewise be explored and initiated in cities and towns, as rapid urbanization takes place.

2.2.5.5 Support MSMEs

In 2013, there were 915,726 establishments in the Philippines. About 99.57% (911,768) of them were MSMEs, and the remaining 3,847 or 0.4% were large enterprises. Most of the MSMEs (89.63%) were micro enterprises, followed by small (9.5%), and medium (0.44%) enterprises.

Most of the MSMEs (46.13%) were in wholesale and retail trade, and repair of motor vehicles and motorcycle industries. The rest were engaged in accommodation and food services; manufacturing; information and communication, financial and insurance; human health and social work services; among others.²⁹

MSMEs generated about 4,879,179 jobs in 2016, which constituted 63.3% of the total employment generated by all the establishments in the Philippines.

Therefore, it is imperative to strengthen support for current programs for MSME development focusing on funding and equipment provision, ease of doing business, capacity-building,

²⁹ Department of Trade and Industry, MSME Statistics, <https://www.dti.gov.ph/dti/index.php/2014-04-02-03-40-26/news-room/179-workshop-on-market-access-for-MSME-set>.

product design and development, and industry prioritization.

Strategies to increase and sustain the productivity and income of operators of MSMEs are the following:

Capability building of MSME operators

The government may provide assistance to MSMEs, especially the micro and small enterprises in the form of business training on entrepreneurship, product development, market matching and development, and organization building.

Provision of access to financial sources

In addition, providing access to finance can also help MSMEs expand business operations, particularly micro-enterprises. The government may open a special loan window to provide financial assistance to MSMEs. Another strategy to enhance access to finance is through the provision of non-collateral loans. Inspiring examples would be those of the Grameen Bank model in Bangladesh, and the CARD SME Bank in the Philippines.

Linking MSMEs with the market

It is essential to link with the potential market for products of MSMEs. This entails looking at the potential tie-ups with huge wholesale and retail stores

for trade, as well as with manufacturing firms, for the provision of raw materials or intermediate goods for processing. It is also necessary to maximize benefits from free trade agreements such as those with the European Union and the U.S., which provide tariff reductions and greater access to their markets.

Organization of micro and small enterprises

It would be advantageous for operators or owners of micro and small enterprises to organize into associations or cooperatives in order to link with potential markets for products. These organizations may also serve as conduits for support services from the government or other organizations. A possible measure includes the promotion of shared service facilities, which could provide MSMEs with machinery, equipment, skills, and knowledge under a shared system. This would serve to enhance MSMEs development by focusing on increasing competitiveness through the application of quality and productive tools, as well as targeted marketing approaches.

2.2.5.6 Provide support to the informal sector

There were 10.4 million informal sector operators based on the 2008 Informal

IN 2013, 99.57% of establishments were MSMEs, majority of which were micro enterprises.



Photo ©UN-Habitat

Sector Survey of the Philippines. Of these, 9.1 million were self-employed, while 1.3 million were employers in family-operated farms or businesses. Informal sector operators were mostly in agriculture (48%) and services (45%), and the rest (7%) in industry. Those in services were predominantly in: wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods; and transport, storage and communications. Most of the informal sector operators were in Calabarzon, Central Luzon, and Western Visayas.

An enabling environment that recognizes and supports the working poor in the informal economy as legitimate actors in the economic development process should be promoted. Urban economic growth and development should enable, not destroy, informal livelihoods.

THE INFORMAL SECTOR—with agriculture 48%, services 45%, and the rest 7%—is intrinsic to everyday community life.

Strategies aimed to mainstream the informal sector focus on the following:

- a. Inclusion in the business operations recognition system, at least at the barangay level;
- b. Organization of informal sector operators to serve as a participatory mechanism for government support and other forms of engagement;
- c. Expansion of microfinance and entrepreneurship support; and
- d. Provision of support for those who intend to transition from the informal to formal sector.

2.2.5.7 Promote and support green industries

Taking a proactive stance on urban resilience, the government now also recognizes certain advantages that a changing climate brings. This includes a more active pursuit of a green economy. The Green Jobs Act of 2016 espouses a low-carbon and resource-efficient economy, which will result in “the generation of green jobs and in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities.”³⁰

Urban economy must be aligned with and further expand on such goals. This can be done by providing incentives to business enterprises that generate and sustain green jobs, goods and services, and technologies, or engage in low-emission development. Local governments can also prioritize green industries in land use allocation and urban design, by incorporating performance standards for business enterprises in the CLUP and Zoning Ordinance.

The renewable energy sector carries great potential, as it addresses sustainability issues by tapping resources that have limited



Photo @UN-Habitat

³⁰ Republic Act No. 10771 (2016).

impact on the environment, and leads to the creation of green jobs for sustainable work. Women in particular have the potential to be trained as photovoltaic³¹ technicians in green industries. This upgrades skills, improves their livelihoods and their families' well-being, while contributing to the production of renewable sources.³²

2.2.5.8 Increase investments

Total investment in the Philippines from both local and foreign sources amounted to PhP 2,742 billion from 2010 to 2013. Of these, 64% and 36% were from Filipino and foreign investors, respectively. The biggest shares in total investment were for electricity, gas, steam and air conditioning supply (31%), manufacturing (29%), and real estate (18%). This level of investment in the Philippines is considered low, which approximates only 7% of the country's GDP.

The crucial role of more investments in driving sustainable economic growth cannot be overemphasized. The creation of a responsive and investment-friendly environment that would attract new investors is necessary to enhance the private sector to engage in new business ventures. Strategies to make cities competitive areas for investment include:

- a. Making land available for new investors/locators in identified growth centers or town centers, as delineated in the CLUP;
- b. Creation of a special unit such as an Investment Promotion Office within the local government unit to focus on economic promotion;
- c. Simplification and streamlining of rules and regulations to decrease time period to process business registration, as well as business entry and exit;
- d. Provision of incentives for new investors; and

- e. Maintaining a healthy peaceful and orderly situation in the area.

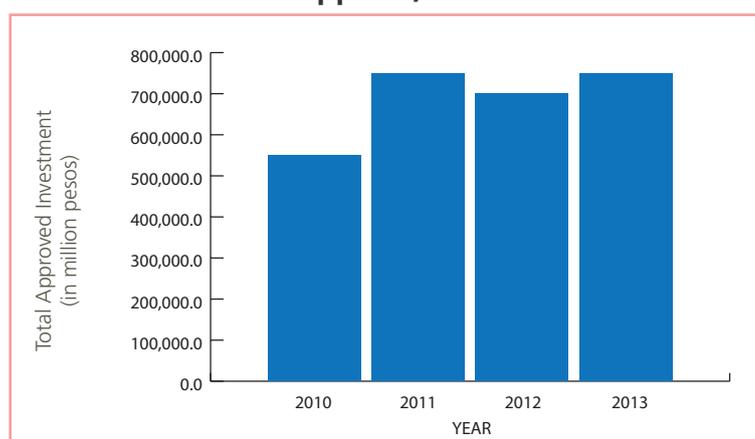
LOCAL FINANCE

LGUs are largely dependent on tax revenues to meet their financial requirements. From 2005 to 2013, 88% of the total income of LGUs came from Internal Revenue Allotment (IRA). Only 7% of total income were from operating and miscellaneous revenues. For the same period, income from tax revenues increased at an annual average growth rate of 9%. Income from operating and miscellaneous revenues grew at a higher rate of 12%. About three-fourths of the total income was spent by the LGUs for personal services and maintenance and other operating expenses.

The dependence of LGUs on their share in taxation or IRA poses a financial constraint to finance development projects identified in their local development plans.

Local finance systems comprise the following four key components: expenditures, revenues, fiscal management, and borrowing. The relative strength or weakness of these components determines whether a local government is able to deliver public goods

Figure 5. Total Approved Investment in the Philippines, 2010–2013



Source: Philippine Statistics Authority

³¹ Photovoltaic – method for generating electric power by using solar cells to gather energy from the sun into a flow of electrons.
³² United Nations Development Programme, Human Development Report 2015: Work for Human Development (New York, 2015).

BOX 13: THE NEW MARKETS TAX CREDIT PROGRAM – A U.S. EXAMPLE

The U.S. implements the New Markets Tax Credit Program. It incentivizes community development and economic growth through the use of tax credits that attract private investment to distressed communities, by permitting individual and corporate investors to receive a tax credit against their federal income tax in exchange for making equity investments in specialized financial intermediaries called Community Development Entities. Through the New Markets Tax Credit Program, the Community Development Institutions Fund under the Department of Treasury allocates tax credit authority to Community Development Entities through a competitive application process. Community Development Entities are financial intermediaries through which private capital flows from an investor to a qualified business located in a low-income community. They use their authority to offer tax credits to investors in exchange for equity in the Community Development Entity. Using the capital from these equity investments, Community Development Entities can make loans and investments to businesses operating in low-income communities on better rates and terms and more flexible features than the market.

The New Markets Tax Credit Program has supported a wide range of businesses including manufacturing, food, retail, housing, health, technology, energy, education, and childcare. Communities benefit from the jobs associated with these investments, as well as greater access to community facilities and commercial goods and services. Since 2003, the New Markets Tax Credit Program has created or retained an estimated 197,585 jobs. It has also supported the construction of 32.4 million square feet of manufacturing space, 74.8 million square feet of office space, and 57.5 million square feet of retail space. In addition, as these communities develop, they become even more attractive to investors, catalyzing a ripple effect that spurs further investments and revitalization.

and services to meet the basic needs and preferences of its population, as well as its ability to influence and provide strategies towards sustainable urban economic growth and development.

Strategies to increase revenue generation and improve the financial capability of the LGUs are presented below.

On Expenditures:

2.2.5.9 Improve expenditure efficiency

Strengthened or improved incentives of local officials can improve expenditure efficiency through performance-based grants or through cooperative agreements like consolidating delivery of services or sharing infrastructure. Responsive budgeting, which links planning and budgeting within the same cycle, must continuously be promoted and implemented.

2.2.5.10 Promote transparency

Promote transparency in financial transactions that allow auditing of local budgets and financial transactions.

On Revenues:

While the Local Government Code and relevant laws have devolved the authority to collect local taxes, to set rates, and to control assessments of tax bases to local governments, local governments can further improve their knowledge on how to understand, value, and develop strategies to expand and improve their tax and revenue base.

2.2.5.11 Improve the tax collection system and structure

Measures to improve tax collection system by LGUs may include preparing and maintaining a good database on real properties, and aggressive information on the need of paying real property taxes and online services and outsourcing on tax collection services.

2.2.5.12 Update land valuation system as basis for real property taxation

Updating the land values of real properties is another measure to increase tax collection among LGUs. Updating the market values

would require a comprehensive database of real property taxpayers and GIS-enabled real property maps or cadastral maps.

2.2.5.13 Implement idle lands tax

Income from the imposition of idle lands tax may significantly add to the coffers of LGUs. The idle lands tax is an additional imposition of 5% on the assessed value of lands considered as idle.³³ The objectives of this special levy are to promote efficient and optimum utilization of land for the overall benefit of society, and to prevent the practice of speculative holding of land. It also serves as a regulatory device to influence the pattern and direction of development in accordance with the desired urban form. It is inevitable to strictly impose idle lands tax and special assessment tax and appropriate sanctions based on applicable laws.

2.2.5.14 Adopt and implement land-based financing mechanisms

LGUs can use a host of land-based revenue-generating mechanisms to meet expenditures and direct spatial growth. Land value capture tools enable local officials to mobilize for public benefit all or part of the increases in land value that result from community investments rather than the actions of landowners. An example of this mechanism is the benefit levy, which is a special levy on taxable real property that benefited—in the form of increased land values—from the implementation of government projects, whether these are new constructions or improvements on existing ones. The imposition of this tax will allow local governments to recover some of the cost of the project.

2.2.5.15 Enhance public-private partnerships

Public-private partnerships (PPPs) encompass a range of possible relationships among public and private entities in the context

of infrastructure and other services. The partnerships come in various forms to include the build-operate-transfer (BOT) scheme and its variations, and joint venture agreements between the government (national and/or local) with private entities, among other modalities, in the implementation of key infrastructure projects of the government.

A key strategy to enhance PPP in the planning and implementation of government projects is the removal of bureaucratic red tape to hasten the process of approval of proposed projects. In addition, “progressive” LGUs may be encouraged to implement income-generating projects such as public market, convention centers, parking buildings through the modalities of PPP.

On Fiscal Management:

Adopt modern financial management tools to enable cities to manage and budget for capital asset costs efficiently, maintain asset inventories and adopt modern asset valuation practices. Sound monitoring arrangements to track key financial metrics and encourage soundness and transparency in accounting should be in place and allow regular and timely audits.

LGUs can use a host of land-based revenue-generating mechanisms to meet expenditures and direct spatial growth.

³³ Republic Act No. 7160 (1991), sec. 236-239.



THE BALANCED HOUSING DEVELOPMENT REQUIREMENT

that developers contribute 20% of a subdivision's area or cost equivalent to socialized housing is one type of developer exaction. Such requirements can be leveraged for planned city extension implementation.

2.2.5.16 Institutionalize participatory budgeting

Grassroots participatory budgeting process (formerly called bottom-up budgeting or BUB) is an approach to budget proposal preparation of national line agencies. It takes into consideration the development needs of cities and municipalities based on consultations with the basic sector and other civil society organizations, and as identified in their respective local poverty reduction action plans. This is a strategy to ensure the inclusion of the development needs as identified in the budget proposal of participating government line agencies.

The allocation for bottom-up budgeting amounted to PHP 20.9 billion in the fiscal year of 2015. Of this amount, Regions VII and VIII got the highest allocation (9.1% each), followed by Region IV-A and Region V, and Region III (8% each). Regions that obtained the lowest proportion were NCR and the ARMM (1% each).

The BUB may also serve as another source of funds for local projects should the new national leadership decide to continue this initiative.

On Borrowings:

2.2.5.17 Develop and strengthen a robust local government debt market

Support credit guarantees or other credit enhancements to facilitate favorable borrowing by national and local government to close financing gaps for infrastructure and strategic priority programs.

2.2.6 Public Administration, Urban Governance and Management

Urban governance serves, in some respects, to tie in all the preceding strategies towards sustainable urban development and housing. Because it is expected that many users of the NUDHF will be elected and appointed government officials or other similarly-placed decision makers, it is important to point out that the NUDHF is a particularly well-informed reference regarding current urban development and housing-related issues in the Philippines. The framework should be consulted for specific concerns voiced by a wide spectrum of stakeholders, so that decisions can hopefully be crafted

that are responsive to problems cited and aspirations declared.

The NUDHF emphasizes that inclusive, informed, fair, consistent and timely urban governance and management are essential for the success of Philippine urban systems. The rule of law and the availability of high-quality information, as implemented by officials, government professional staff, and technical personnel makes the difference between a dynamic, safe city and one that is unpredictable and less stable. Moreover, comprehensive and timely legal and administrative support shall be necessary to prioritize approaches to city-building, which can be seen for example in the implementation of relevant legislation, along with mainstreaming of the sustainable development knowledge in educational curricula, consistent with the principles of resilience and integration.

While this framework can only describe and suggest in broad strokes what should be done in terms of government actions within a limited, foreseeable period, it has been written to provide the users enough material to direct towards more in-depth investigation at finer scales of planning and implementation.

2.2.6.1 Harmonize legal frameworks and administrative hierarchies to improve policy implementation, government service administration, and development opportunities

Government administers the national territory simultaneously at different scales. This NUDHF guides the development and administration of that same territory, with or without the help of various non-governmental partners. Hence, government always falls back on some sort of basic hierarchy, which has physical and legal

BOX 14: DIFFERENT FORMS OF LAND-BASED FINANCE

Real property taxes should link public revenues with the increasing value of land in the Planned City Extension (PCE) approach. It is important for LGUs to work with provinces to ensure that real property tax ordinances are adequate to enable land value sharing. Additionally, accurate valuation and successful administration resulting in good coverage and collection ratios will be important for the real property tax to serve its function.

Idle land tax is an additional property tax that can be used to discourage speculation in the PCE area and encourage the productive use of land.

Developer exactions are one-time contributions from developers (in the form of money, land, or improvements) required for building permissions. The Balanced Housing Development Requirement that developers contribute 20% of a subdivision’s area or cost equivalent to socialized housing is one type of developer exaction. Such requirements can be leveraged for PCE implementation.

Special levies (sometimes called betterment levies) can be used to charge landowners directly for some of the costs of public improvements that will raise the value of their land. Section 240 of the Local Government Code specifies that up to 60% of project costs can be charged to benefiting properties, to be paid in installments over a 5–10 year period.

Land leases and sales of publicly owned land allow for the LGU to generate revenue in a large lump sum (sale) or in relationship with value over time (lease) to pay for public improvements. Reliable valuation is necessary for leasing. Open public auction is the best technique for ensuring transparency and maximizing revenue generation of sales.

These instruments hold potential for successful PCE implementation and financial feasibility.

More related publications on <http://www.glt.n.net/index.php/land-tools/themes/land-based-financing>

FRAMEWORK

Table 3: Spatial Division of Labor Among Government Units

General Category of Government Unit	Specifically Named Entity	Basis in Law or Legitimate State/ Sub-state Policy or Jurisprudence
1. Non-political entities for planning or related purposes that guide or influence development in a spatial context	[i] HUDCC and HLURB	E.O. 648, E.O. 90, R.A. 7279, E.O. 72, M.C. 54, E.O. 124,
	[ii] NEDA	E.O.230 of 1987, Memo. Order 222 of 1994 [Execom]
	[iii] MMDA	R.A.7924
	[iv] DPWH	E.O.124 of 1987
	[v] LRA (under DOJ)	E.O.292 of 197; M.C.30 Sept. 1998
	[vi] DA	E.O 116 of 1987
	[vii] DAR	R.A.6657 of 1988, E.O.129-A, 1987
2. Political or quasi-political spatial entities (with electoral representation) that have territorial jurisdiction	[i] LGU (Province, HUC, City, Municipality, Barangay)	R.A.7160
	[ii] Congressional District	1987 Constitution
	[iii] ARMM	R.A.9054, 1987 Constitution
	[iv] CAR	E.O.220 of 1987
3. Spatial regions that have special significance, unique value, or need special institutional oversight	[i] AFP	1987 Constitution
	[ii] BCDA	R.A.7227 of 1992, 7917 of 1995, 9400 of 2007
	[iii] LLDA	R.A.4859
	[iv] PRRC	E.O.54 of 1999
	[v] Intramuros Administration	P.D.1616 of 1979
	[vi] PEZA	R.A.7916 of 1995, R.A. 8748 of 1999
4. Utility agencies that use space for technical connectivity or mobility	[i] MWSS	R.A.6234 of 1971
	[ii] LWUA	P.D.198 of 1973
	[iii] NWRB	P.D.424 of 1974, E.O.124-A of 1987
	[iv] DOE	R.A.7638 of 1992
5. Regulatory agencies that govern aspects of private sector and civil society activity in space	[i] HUDCC and attached agencies	E.O. 90 of 1986 + various others
	[ii] DILG	R.A.6975 of 1990, E.O.262 of 1987
	[iii] DENR	E.O.192 of 1987
	[iv] NCIP	R.A.8371 of 1997
	[v] NIA	R.A.3601 of 1963, P.D.552 of 1974, P.D.1702 of 1980
6. Land-related financing	[i] BSP	B.P.61 of 1980, P.D.1801 of 1981
	[ii] LBP	R.A.3844 of 1963
	[iii] DBP	E.O.81 of 1986, R.A.8523 of 1988
	[iv] SHFC	R.A.7835 of 1994

presence throughout the archipelago. Proper urban development requires the decision-maker to have a good understanding of which parts of government have responsibility over which segments of the state's physical space.

It is inevitable that some overlap takes place in implementing policy, administering government services, and extending development opportunities. This is not necessarily to be avoided, as some degree of redundancy is always necessary as a back-up in case of (1) failure or suspension of local authority due to civil strife or election-related disputes, compelling national government to take over, (2) natural calamities that prevent or destroy the capability of local and proximate forces to respond adequately, and, conversely, (3) failure or delay of national government due to acute political or technical problems in the capital region, thus compelling local governments to sustain basic politico-administrative functions. Nevertheless, since the passage of the Local Government Code, there has been a strong impetus towards empowering LGUs to self-govern. Hence, this framework suggests the following protocol for such cases:

GOVERNMENT ADMINISTERS the national territory simultaneously at different scales. This NUDHF guides the development and administration of that same territory, with or without the help of various non-governmental partners.

- National Government Agency and LGU. As a general rule, the national government agency shall prevail only to the minimum degree of justifiable intervention, providing as well that the LGU constituents are consulted or informed beforehand, except in emergencies when reasonable action must be taken to save lives and prevent catastrophe (e.g. evacuation from natural disaster). Examples might include occasional jurisdictional conflicts between the Metropolitan Manila Development Authority (MMDA) and Metro Manila LGUs over traffic or planning-related matters, or between the Philippine Economic Zone Authority (PEZA) and LGUs over the activities of commercial locators and their associates. In such cases, rational and non-confrontational methods are best employed for conflict resolution.

- Cluster of LGUs and Single LGU. Again, the majority is expected to prevail in this case, provided that the cluster itself has legal personality, or some other basis in law to push for a development decision or a development veto. The Local Government Code recognizes and encourages LGU associations, especially for the common welfare.

- LGU and Peer (Same Level) LGU. This matter should be settled amicably between LGUs; otherwise it will have to be referred for arbitration to the appropriate government agency (e.g. Department of Environment and Natural Resources [DENR] and Department of Justice [DOJ] for boundary disputes, or Department of Interior and Local Government [DILG] for spillovers of nuisance). As a last resort, LGUs may settle the case in court.

- LGU and Subordinate LGU. Normally, the hierarchy should be respected here, with the umbrella, or encompassing entity prevailing. However, inability to resolve or address disputes fairly or the persistence of a legitimate grievance may be raised by the lesser entity with DILG or the appropriate executive agency. As a last resort, LGUs may settle the case in court.

- National Government Agency or LGU and Extra-Territorial Entity. In unusual or



Photo ©Ormoc LGU

BOX 15: LAND AND SEA USE DIMENSION

There have been instances of neighboring countries' fishing fleets that have fished in Philippine waters, or agents that have extracted natural resources under circumstances that place local communities at a disadvantage. In other cases, non-stage groups have historically been known to occupy small areas of Philippine territory (e.g. 2013 siege of Zamboanga in Mindanao). Such cases, which have a land and sea use dimension, must be referred to the appropriate national agency, including, at the highest level, the Office of the President and the Department of Foreign Affairs, and so on.

rare cases, issues of urban governance may include either a foreign group, corporation, or occupying force.

- National Law and National Law, with Different Implementing Entities. In a few cases, conflicts may inadvertently arise when new laws fail to revise or account for overlapping provisions from old laws.

The National Building Code (P.D. 1096 of 1977) clearly places responsibility for appointing building officials with the DPWH. However, the Local Government Code designates the Municipal/City Engineer as the Building Official, thus introducing a potential, if not actual, conflict in appointing authority. Such matters should be referred to the courts, or compared against past jurisprudence or resolution.

- National government and global agreements and commitments consistent with international agreement signed/ratified by the Philippine government.

2.2.6.2 Institutionalize the review, monitoring and evaluation of urban development policies, plans, and programs

Both national and local government must conduct a continuous review of legislation, policies and programs on urban development and housing. This requires output and outcome monitoring and ground validation, as well as employing quantitative and qualitative assessments. Support must be given to

LGUs in acquiring technologies for improved knowledge management.

2.2.6.3 Clarify, review and update institutional mandates

The HUDCC, along with its Key Shelter Agencies (KSAs), must broaden its scope to coordinate urban development management, in order to meet the objectives and goals outlined in the updated NUDHF. In the absence of budget control and resource allocation powers, however, HUDCC is inherently weak as the coordinative mechanism at the national level, and presents a strong case for the formation of a Department of Human Settlements and Urban Development. The proposed Department of Human Settlements and Urban Development³⁴ is a positive move toward a Cabinet level department. This will provide a clearer mandate, not only on housing, but more importantly on urban development.

2.2.6.4 Formalize LGU associations, functional clusters, or other supra-local administrative authorities/arrangement

In rapidly urbanizing cities and regions, it is sometimes necessary to reconfigure present governance structures or form new administrative arrangements, especially where two or more adjacent LGUs have grown to form a physically agglomerated mass, to address the cross-border problems such as traffic, flooding, crime, and garbage in the de facto metropolis. This administrative solution can either be the result of consensus from

³⁴ "A new approach to the housing problem," Business Mirror, December 15, 2015, www.businessmirror.com.ph.

LGU peers, or legislated. The intention is to plan urban growth in a manner that generates sustained benefits for all.

In the context of disaster risk reduction and for climate change action, the watershed/ river basin area can be the basis of functional clustering.

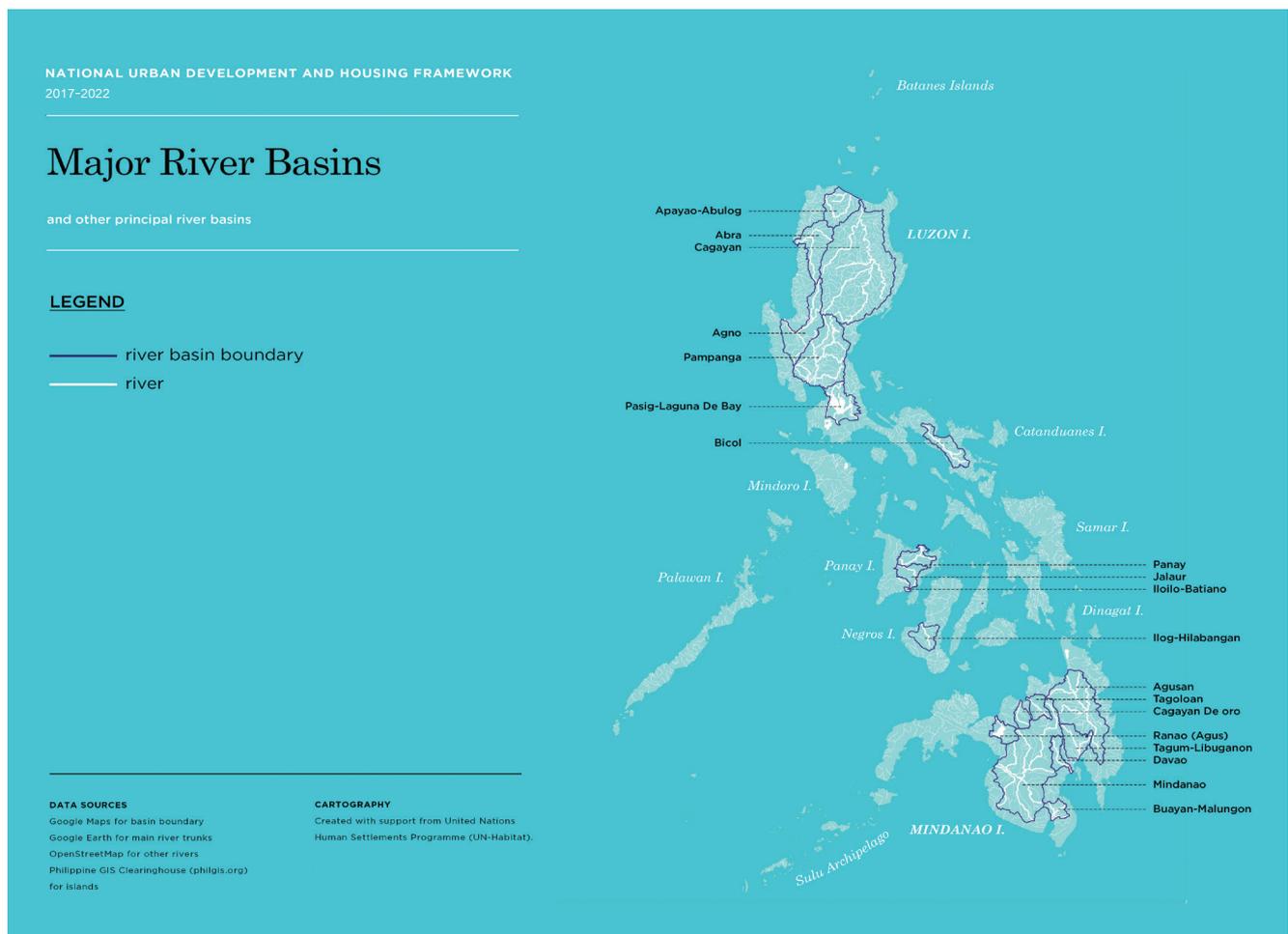
2.2.6.5 Manage public spaces as venues for participatory governance

As aligned with strategies under Planning and Design, Infrastructure, and following the principle of inclusivity, urban management should ensure that public spaces are well-maintained (i.e. adequately funded and

managed) so that they perform their functions. Public spaces should cater to collective political, democratic expression as an input to urban governance. Social inclusion is enhanced through community participation especially of vulnerable groups. Public spaces facilitate this interaction, extending community participation even to action planning, housing decisions and neighborhood connectivity.³⁵

Placemaking, the “deliberate re-shaping of the built environment to facilitate social interaction and improve quality of life”,³⁶ also should be further explored by local

Figure 6. Major River Basins Map



³⁵ Philippine New Urban Agenda (October 2016).

³⁶ Ibid.

As both an overarching idea and a hands-on approach for improving a neighborhood, city, or region, placemaking inspires people to collectively reimagine and reinvent public spaces as the heart of every community. Intertwined with placemaking is the goal of supporting local governments in creating and promoting socially inclusive, integrated, connected, environmentally sustainable, and safe streets and public spaces, especially for the most vulnerable. Towards this, the agenda of placemaking – to create quality public spaces that contribute to people’s health, happiness, and wellbeing – should be more vigorously pursued. (Philippine New Urban Agenda, October 2016)

governments to encourage a more inclusive urban design process.

2.2.6.6 Operationalize People-Public-Private Partnerships

Formal government cannot take on the complex tasks of nation-building alone. In order to build and respond comprehensively to the needs of the populace, the private sector and civil society should be co-opted as partners at the local, sub-national, and national levels. Consistent with the strategies on economic development, people-public-private partnerships should be part of the governance mechanism, to promote sustainable economic activity, encourage continuous research and technology transfer to the community, and strengthen transparent

collaboration between private and public sector organizations. Partnership is enabled through Build-Operate-and-Transfer Law,³⁷ as well as through the Government Procurement Reform Act of 2002,³⁸ among other relevant legislation. A significant part of governance in this respect is to ensure that a relatively stable and secure investment environment exists in the LGU, so that businessmen become willing to risk their funds in anticipation of reasonable returns.

But while the private sector, consisting essentially of better-capitalized business entities, has the capacity to leverage large amounts of funds and well-educated human resources in order to solve developmental problems, the government nevertheless has to ensure that not all areas are given over to profit-driven motives. For instance, the UDHA contains a balanced housing provision that requires private developers to allocate a minimum of 20% of subdivisions for socialized housing (i.e. low-cost housing for the poorest).

Simultaneously, civil society groups, collectively also called the non-profit sector, largely consisting of NGOs and people’s organizations, are likewise essential in order to fill gaps in development. They are sometimes able to obtain substantial funds from donors for civic projects such as the construction of community wells, refuges, clinics, neighborhood sports facilities, bicycle paths, plant nurseries, etc. They may initiate and

Various environmental groups organize yearly tree-plantings, coastal and river cleanups, and similar activities that cumulatively benefit the urban environment.

³⁷ Republic Act No. 7718 (1994).

³⁸ Republic Act No. 9184 (2003).

sustain various programs to assist the youth, the elderly, indigenous peoples, and other vital sectors. NGOs and the like, however, not only compensate for the shortcomings of formal government or the private sector; they also point out new and alternative directions for development. For instance, a sustained global civil society lobby has been largely responsible for the gains of anti-smoking campaigns in every country, while in the Philippines, various environmental groups organize yearly tree-plantings, coastal and river cleanups, and similar activities that cumulatively benefit the urban environment.

2.2.6.7 Ensure urban safety and security

Man-made hazards, risks, and crime, usually solved using police presence and emergency response, can also be addressed through greater community participation and awareness of safety and security issues. Better urban planning and urban design will also provide tangible solutions to urban risks, from the household and street level up to citywide safety and security measures.

2.2.6.8 Enforce delineation and protection of special areas such as protected areas, prime agriculture areas, key biodiversity areas, critical habitats, heritage areas, ancestral domains

Consistent with the strategy on urban planning and design, government must clearly delineate, map, and protect special areas such as critical habitats, and prime agricultural and heritage areas. Enforcing protection helps government and stakeholders in managing urban growth within the bounds of the ecosystem. It will also benefit the urban system by helping achieve food security, increase biodiversity, and contribute to climate change action and disaster risk reduction.

2.2.6.9 Capacitate the staff at all levels of government

It is essential to build capacities of LGU staff in the following aspects: (a) plan preparation,

implementation, and monitoring and evaluation; (b) project planning, development and management; (c) planning-programming-budgeting linkage, and (d) public financial management, among other concerns.

Sending the staff of concerned LGUs to formal education (graduate studies) and advanced training (if applicable) may capacitate them to perform more tasks to address the changing needs of the times. At the national level, technical staff must be continuously trained in policy, program development and knowledge management.

2.2.6.10 Strengthen local/decentralized governance mechanisms as the core of urban governance and management

Maintaining the decentralized governance structure will allow local governments to assume accountability and responsibility for pursuing general welfare, delivering services to the community, and achieving sustainable urban development, all of which fall within the jurisdiction of an LGU.³⁹

This entails policy reforms to address structural deficiencies, improve local financial management, and sustain capacity development programs. Vertical and horizontal integration will facilitate and encourage actions consistent with LGU plans and higher-level plans and programs.

2.2.6.11 Ensure ethical and effective local leadership for safe, resilient, sustainable, and inclusive cities

Government leaders should be competent, ethical, and able to demonstrate innovative and effective urban governance. They must adhere to applicable codes of conduct and emulate good practices. Local chief executives should be accountable for developing and implementing plans, considering their power to implement laws and public policies.

National government should further enhance its programs to incentivize good

³⁹ Every parcel of land and municipal waters, except for exclusive reservations of the national government, e.g. special economic zones and military bases.

BOX 16: FUNCTIONAL METROPOLITAN AREAS OUTSIDE OF METRO MANILA

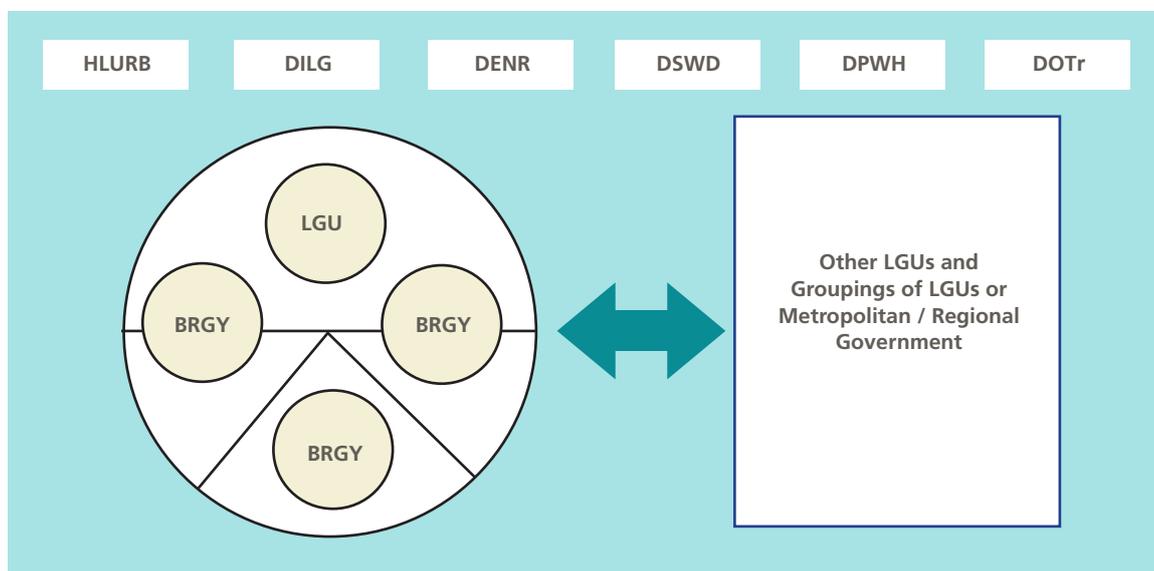
In the Philippines, only Metropolitan Manila, consisting of 17 Local Government Units, has historically been created by official declaration (Presidential Decree 824 of 1975). There have been, however, several other viable Regional Development Councils that function as planning and policy advisory bodies, especially under the guidance of NEDA offices, and have evolved into some form of metropolitan body. Examples are the following, including composition:

Metropolitan Area	LGU Composition	Approximate Land Area (sq.km.)	Approximate Population (2015)
Metro Angeles	Angeles, Bacolor, Mabalacat, Porac, San Fernando	596	1,132,933
Metro Bacolod	Bacolod, Silay, Talisay	857	791,019
Metro Baguio	Baguio, La Trinidad, Itogon, Sablan, Tuba, Tublay	1,094	611,316
Metro Batangas	Batangas City, Bauan, San Pascual	386	486,595
Metro Cagayan de Oro	Cagayan de Oro City, Alubijid, Claveria, El Salvador City, Gitagum, Jasaan, Laguindingan, Opol, Tagoloan, Villanueva, Baungon, Libona, Malitbog, Manolo Fortich, Sumilao, Talakag	1,690	1,376,343
Metro Cebu	Cebu City, Carcar, Compostela, Consolacion, Cordova, Danao, Lapu-Lapu, Liloan, Mandaue, Minglanilla, Naga, San Fernando, Talisay	1,163	2,849,213
Metro Dagupan	Calasiao, Mangaldan, Dagupan	134	372,756
Metro Davao	Davao City, Digos, Panabo, Island Garden City of Samal, Santa Cruz, Carmen, Tagum	4,041	2,516,216
Metro Iloilo-Guimaras	Iloilo City, Guimaras Province, Leganes, Oton, Pavia, San Miguel, Santa Barbara.	1,105	946,146
Metro Naga	Naga, Bombon, Bula, Calabanga, Camaligan, Canaman, Gainza, Magarao, Milaor, Minalabac, Ocampo, Pamplona, Pasacao, Pili, San Fernando	1,242	799,955
Metro Olongapo	Olongapo, Subic	472	337,811

Source: https://web.archive.org/web/20131004221432/http://www.neda.gov.ph/devpulse/pdf_files/Devpulse%20factsheet%20-%20Aug%2030%20issue.pdf

https://ipfs.io/ipfs/QmXoyvizW3WknFJnKLwHCnL72vedxjQkDDP1mXWo6uco/wiki/List_of_metropolitan_areas_in_the_Philippines.html#cite_note-metro-1

Figure 7. The Local Government Unit as the Spatial Focus of Urban Governance



governance, and provide technical support and advice, continuing professional leadership development. If well-meaning leadership is properly guided by technical support and the advice, urban governance can be expected to contribute to the improvement of Philippine cities and municipalities.

2.2.6.12 Improve coordination and collaboration among agencies concerned with urban development and housing

While there is already a higher level of coordination than in past years, agencies such as HUDCC and Key Shelter Agencies, DENR, Department of Agriculture (DA), Department of Agrarian Reform (DAR), National Commission on Indigenous Peoples (NCIP), DOJ and PEZA, will need closer engagement. One significant step to do this is to begin constructing and unifying essential databases on land and land-based resources, among other possible actions that tackle problematic areas such as informal settlements, lands still subject to agrarian reform, mining areas vs. indigenous peoples’ claims, disputed lands and waters. Possible restructuring of shelter agencies must be seriously considered, such as the creation of the Department of Human Settlements and Urban Development.

2.2.7 Philippine Urban Development and Prospects for Integration in the Association of Southeast Asian Nations (ASEAN) Economic Community: Priority Areas for International Region Linkages

The opening and integration of ASEAN markets can be seen as a call to wider inclusiveness and integration, consistent with the principles of this framework.

In order to capture the opportunities related to ASEAN integration, the NUDHF proposes the following broad strategies, for implementation in urban areas and urbanizing rural areas, and with which local plans should resonate.

2.2.7.1 Focus investment climate improvements, geospatial preparations, as well as social and health safeguards in strategic nodes of trade

It is important to identify areas that may become strategic nodes for trade and interaction in the foreseeable ASEAN Economic Community. Due to either proximity or accumulated infrastructure and experience, the following cities or clusters of

cities should figure in any plans for setting up ASEAN supply chains:

Metropolitan Manila and key ports around Manila Bay

Due to the presence of relatively substantial port facilities, quarantine, customs functions and adjacency to strong markets, Metro Manila is likely to remain a major trading center of the Philippines, with respect to ASEAN imports and exports. Some collateral simultaneous trading, warehousing, or secondary markets, however, may be formally established as a network in other coastal settlements. Major candidates include the naval port in Kawit, Cavite, as well as the small port in Mariveles, Bataan.

Metro Cebu and key ports in adjacent islands

As another major port that already has substantial infrastructure in place, Cebu City is likely to play a major role in trade with other ASEAN countries, especially as air transportation more quickly accesses other major cities abroad like Singapore and Bangkok.

Puerto Princesa and subordinate ports in Palawan

Puerto Princesa uniquely has coastlines on both the western and eastern side of Palawan Island, although the exposed western side is not yet developed for a full-service port. This is one area for strategic trade access—a good opportunity to assert civilian presence through economic activities.

Zamboanga City and Isabela City, Basilan

Due to their proximity to Malaysian ports (e.g. in Sandakan and Kota Kinabalu), these urban areas can be further developed or redeveloped to link to the terrestrial and nautical highways that eventually link Malaysia to Singapore and mainland Southeast Asia.

General Santos City

Already a bustling fishing and cargo port, this city is the most logical proximate choice

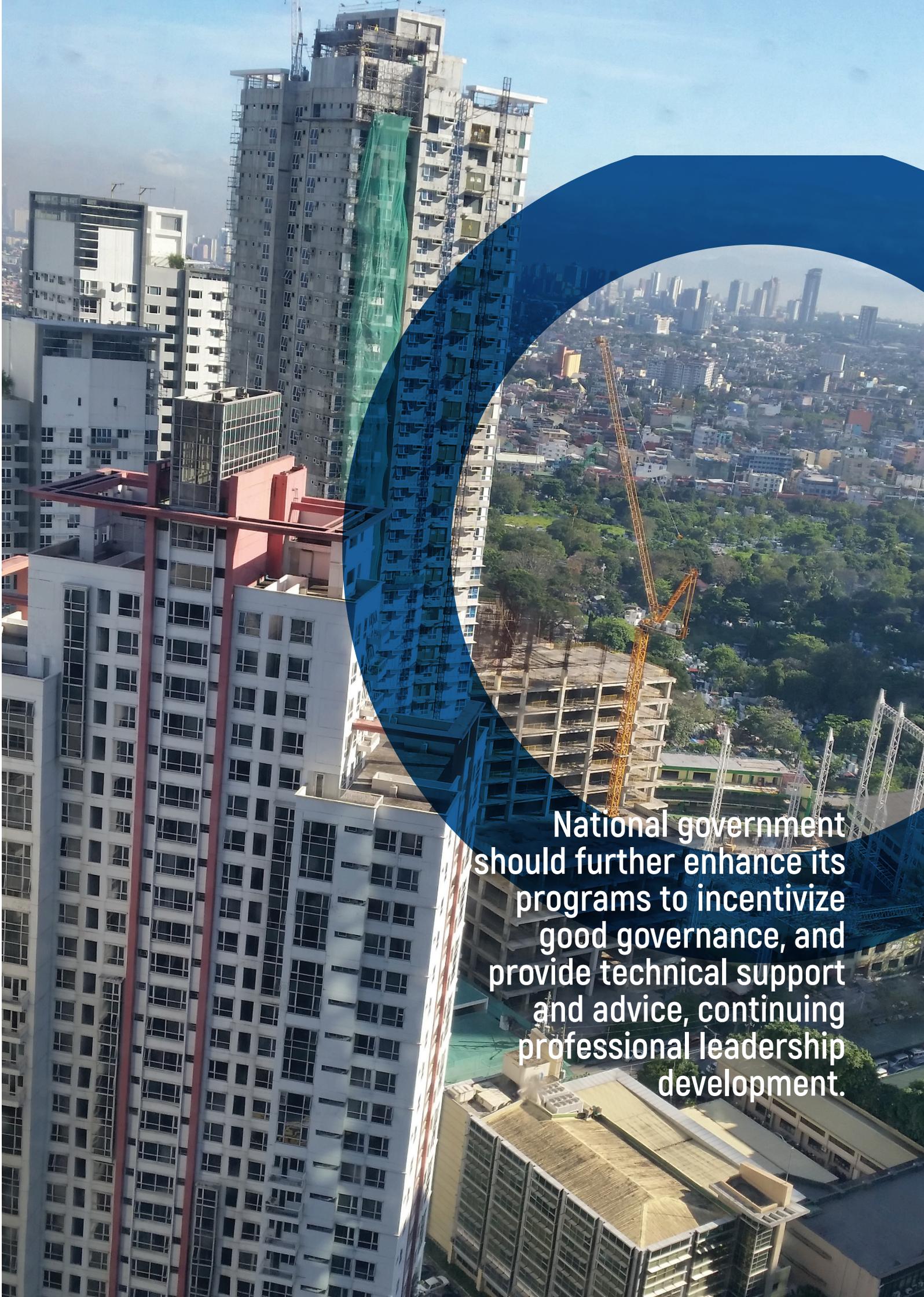
for seaborne access to ports in Indonesia, specifically on the islands of Sulawesi and the Moluccas. There is also potential for forming regular linkage with other ports in Indonesia.

2.2.7.2 Invest in post-production facilities such as waste management and support services for locators

An expected magnification of the market which allows for more throughput of material wealth all around ASEAN is also likely to result in heavier environmental and social impacts. The byproducts of highly-urbanized, consumer societies throughout Asia will necessitate the provision of more Materials Recovery Facilities and Sanitary Landfills, at least in the Philippines. IT-related refuse should also be intercepted for extraction of precious metals and other recyclables. This may be done in key cities throughout the archipelago, or may even be planned as a specialized function for Special Economic Zones servicing (and charging fees for) the entire ASEAN.

In similar manner, the designation of certain cities as key production areas or transshipment nodes will likely cause the growth of many urban support services. One important government-regulated activity here is the provision of safe and affordable housing for blue-collar workers as well as high-end housing for expatriates and foreign workers who will need Internet connectivity and, along with other residents, areas for shopping and recreation.

While most of these facilities are a normal part of urban development concerns, they will need to be planned more carefully and integrated more seamlessly, if the Philippines is to become an attractive location of choice for investors and significant economic activities serving ASEAN. The failure to provide basic utilities (e.g. reliable water and electricity connections) and services (hospitals, police stations, schools, parks) at acceptable international standards will prevent or delay the accession of the Philippines to a truly integrated pan-Southeast Asian community.



National government should further enhance its programs to incentivize good governance, and provide technical support and advice, continuing professional leadership development.

FRAMEWORK

Table 4: Examples of Managerial Responsibilities for Institutions at the Local Level

Growth Sector or Aspect	Affirmative or Supportive Acts	Spatial Expression	Negative or Preventive Acts	Spatial Expression
1. Social	Educate all citizens; protect minorities and the poor; provide housing	Schools, low-cost housing, facilities for special needs, more functioning public closed-circuit television (CCTV) cameras that enable <i>tanods</i> /police to respond quickly	Punish criminality and drugs; discourage unsociable behavior (e.g. offensive and boisterous speech; unjust segregation along religious or ethnic lines)	Warning signs, no enclaves/ghettos, public space
2. Economic	Promote sustainable business; create jobs for most people	Markets, zones for investment; safe central business districts (CBDs), warehouses	Prevent monopolies and price information blocks; dismantle cartels.	Free passage in ports and highways
3. Institutional/ Financial	Build effective government facilities; build emergency shelters	Government complexes; outposts	Eliminate corruption in bureaucracy	Reliable public service signage; no areas that seem unserved by government
4. Physical	Provide and regularly maintain infrastructure	Roads, all utilities, bridges, IT web	Ban certain materials, fence off hazard sites	Clean and safe built-up areas
5. Environmental	Maintain integrity of air, water, and land	A beautiful and clean environment	Mitigate pollution; reduce garbage	Sanitary landfills; less blight/ smog
6. Transport	Provide mass transit	Bus rapid transits (BRTs) or trains run	Prevent traffic	Traffic devices
7. Heritage	Identify and preserve heritage sites	Iconic monuments, old tourist sites	Violations in heritage sites should be penalized	Clear view corridors and approaches
8. Water Security	Build dams, pipe systems, and water retention and storage facilities	Dams, filtration, sewers, irrigation	Clamp down on water wastage	Efficient water use technologies
* Special Concerns/ Others	Non-government agencies and LGUs are frontrunners for climate change action and DRRM Promote and focus building flagship projects	Built structures and reliable groups for 24/7 climate change action and DRRM response Executed flagship projects with high quality workmanship	Remove conflicting land/water uses and address unprepared sites (need assistance)	Climate change action/DRRM prepared sites

Figure 8. Countries That Make Up the ASEAN Community, To Be Integrated by 2020



Source: ID 40294386 © Parradii Kaewpensri | Dreamstime.com

2.2.7.3 Improve in-city internal systems and other infrastructure necessary for integration

Integration will mean being able to raise urban living standards to comparable levels with the current best of Southeast Asia. In terms of efficiency and safety, Singaporean and Malaysian urban areas could be considered comparable in their living standards to developed, western countries. To plan for and implement infrastructure similar to what the best of Southeast Asia currently has, one would have to design for both local and national scales, which include:

- A safe, secure, and affordable ICT backbone or appropriate Internet infrastructure for the whole archipelago. The hardware for this always has spatial anchors in specific physical sites, and requires trained personnel to manage.
- Utilities. Reliable and affordable power generation is a must for round-the-clock commercial transactions. Also, potable water and sewerage management systems are essential for the urban centers that are linked across Southeast Asia.
- Transportation. Air transport for passengers and freight will be quite important and necessary for the rapid movement of raw materials and finished products. Some standardization of identification, packaging, and quality control across ASEAN should be expected.
- Offices for Quality Control and ASEAN Harmonization. This is a possible institutional add-on feature, pursuant to stipulations in the integration documents to harmonize several items: agriculture and aquaculture product safety, harmful substance controls, labeling, database standards, rules for investment, etc.

MAINSTREAMING AND HORIZONTAL INTEGRATION



Photo @ Tagum City Government

It is important for the achievement of the NUDHF vision that its principles and strategies are absorbed by and integrated into the plans and programs of the government and its partners in development.

HLURB sees the NUDHF as the main guiding framework or legal basis in land use planning, real estate management, and other related HLURB mandates. It will also serve as a guide for the review of CLUP, particularly how the framework's principles and strategies are reflected in the plans of cities and municipalities. Furthermore, it will serve as a main reference document in the conduct of technical assistance and training for local government.

Given the foregoing principles and their corresponding strategies, this chapter now discusses implications for long-term policy reform.

3.1 POLICY AND PROGRAM RECOMMENDATIONS

The NUDHF will substantively guide the development of policies concerning urban development and housing, and provide inputs to policies of related sectors. The strategies presented in the previous chapter bring to fore necessary policy and program enhancements, updates or amendments, which can be applied at different levels of government. These will enrich ongoing actions and provide support for the achievement of the country's vision for sustainable urban development.

Table 5 shows the overview of NUDHF strategies with corresponding policy and program implications, as well as the framework principles and the Sustainable Development Goals (SDGs) that they intend to achieve.

MAINSTREAMING AND HORIZONTAL INTEGRATION

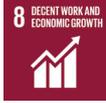
Table 5: Overview of NUDHF Strategies and Related Policies, Programs, and SDGs

Strategy	Potential Policy and Program Implications	Key Framework Principles (see Chapter 2.1.2)	SDGs
Urban Planning and Design			
Fully operationalize ridge-to-reef/integrated ecosystems planning	<ol style="list-style-type: none"> 1. Use and implementation of Housing and Land Use Regulatory Board (HLURB) Guidelines including Implementing Rules and Regulations (IRRs) on Batas Pambansa 220 (BP 220) and Presidential Decree 957 (PD 957) Subdivision Guidelines, Farmlot Guidelines, and Industrial and Commercial Guidelines to consider ecosystems and climate and disaster resilience. 2. Consideration of the ridge-to-reef planning/integrated watershed planning approach in regional, provincial, and other special plans. 3. Requirement for barangays to consider the larger ecosystem in barangay-level plans. 4. Updating of planning/landscape architecture/urban design/engineering curricula to include ridge-to-reef planning/integrated watershed planning. 5. Enforcement of the protection of special areas such as protected areas, prime agriculture areas, key biodiversity areas, critical habitats, heritage areas, and ancestral domains. 	<p>3. Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms</p> <p>6. Sustainable urban environment as a core development condition</p>	   
Strengthen the mainstreaming of disaster risk reduction and management (DRRM) planning and climate change action planning with spatial and sectoral development planning	<ol style="list-style-type: none"> 1. Review and updating of the National Climate Change Action Plan (NCCAP), taking into full consideration the spatial context of climate change. 2. Continuous enhancement of Local Climate Change Adaptation Plan (LCCAP) guides for local government units (LGUs) to integrate climate change and disaster risk reduction (DRR) concerns. 	<p>2. Climate change resilience as a base for spatial and sectoral development</p>	 

MAINSTREAMING AND HORIZONTAL INTEGRATION

Strategy	Potential Policy and Program Implications	Key Framework Principles (see Chapter 2.1.2)	SDGs
Design barangays and neighborhoods in terms of human scale and walkability	<ol style="list-style-type: none"> 1. Inclusion of the physical structure of the barangay unit in the Local Government Code. 2. Barangay-level plans to include physical structure. 3. Inclusion of barangay-level walkability in HLURB Comprehensive Land Use Plan (CLUP) guidebooks, as well as the consideration of human scale urban design by the physical design. 4. Updating of planning/urban design/architecture/engineering curricula to include the barangay unit, form based codes and transect zoning. 	<ol style="list-style-type: none"> 1. Urbanization as catalyst for inclusive growth 3. Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms 5. People’s participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance 	 
Promote adequate networks of public open spaces	<ol style="list-style-type: none"> 1. Establishment of a network of open spaces that includes considerations of the National Integrated Protected Areas System (NIPAS) and environmentally critical areas, where applicable. 2. Requirement of LGUs by the Local Government Code to plan and provide public open space networks. 3. Inclusion in HLURB CLUP guidebooks of open space networks in the social and infrastructure sectors. 4. Provision of parks and urban agriculture, and conversion of easements into green corridors and green streets, in the BP 220 and PD 957 Subdivision Guidelines, HLURB Farmlot Guidelines, and Industrial and Commercial Guidelines. 	<ol style="list-style-type: none"> 2. Climate change resilience as a base for spatial and sectoral development 3. Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms 4. Urban spaces as platforms for social and economic opportunity, cultural expression, and innovation 6. Sustainable urban environment as a core development condition 	  

MAINSTREAMING AND HORIZONTAL INTEGRATION

Strategy	Potential Policy and Program Implications	Key Framework Principles (see Chapter 2.1.2)	SDGs
Consider the water cycle in urban planning and design	<ol style="list-style-type: none"> Enforcement, review, and updating of the following if necessary: <ul style="list-style-type: none"> Climate Change Act Disaster Risk Reduction and Management Act Ecological Solid Waste Management Act Clean Water Act Environmental Code National Building Code Sanitation Codes Inclusion of water-sensitive urban planning and design in HLURB CLUP guidebooks. Updating of planning/ landscape architecture/urban design/engineering curricula to include open space networks, sustainability and water sensitive urban design. 	<ol style="list-style-type: none"> Climate change resilience as a base for spatial and sectoral development Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms 	  
Promote compact development, mixed land use, and social mix	<ol style="list-style-type: none"> Updating of the CLUP and Comprehensive Development Plan (CDP) guidebooks to ensure inclusion of planning approaches related to compact development, mixed land use, and social mix. 	<ol style="list-style-type: none"> Urbanization as catalyst for inclusive growth Climate change resilience as a base for spatial and sectoral development Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms Urban spaces as platforms for social and economic opportunity, cultural expression, and innovation People's participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance Sustainable urban environment as a core development condition 	    

MAINSTREAMING AND HORIZONTAL INTEGRATION

Strategy	Potential Policy and Program Implications	Key Framework Principles (see Chapter 2.1.2)	SDGs
<p>Integrate mobility and transport planning in land use planning</p>	<ol style="list-style-type: none"> 1. Integration of transport planning in CLUP and CDP guidebooks. 2. Harmonization of policies of NEDA, DOTr, DPWH, DILG, HLURB, HUDCC, MMDA, and other relevant agencies relative to mobility and land use planning: <ul style="list-style-type: none"> • Prioritization of the pedestrian rather than the vehicle • Consideration of land use, circulation, connection, and barangay/district units • Abandoning of the boundary system, issuing individual franchises instead; the determination of the routes by the government and the out bidding of these to new franchises or existing franchises who will abide by the new operations • Ceasing of the office of the mayor being the issuer of tricycle permits 3. Updating of the BP 220 and PD 957 Subdivision Guidelines, HLURB Farmlot Guidelines, and Industrial and Commercial Guidelines to integrate mobility and land use. 4. Updating of the National Building Code to: <ul style="list-style-type: none"> • prioritize pedestrians: parking locations/entrances/service entrances should not be at the main road • reduce parking capacities at buildings in areas served by public transport • integrate pedestrian walkways in buildings • integrate land use/circulation 5. Updating of planning/landscape architecture /urban design/ engineering curricula to include land use/circulation integration. 	<ol style="list-style-type: none"> 1. Urbanization as catalyst for inclusive growth 2. Climate change resilience as a base for spatial and sectoral development 3. Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms 4. Urban spaces as platforms for social and economic opportunity, cultural expression, and innovation 5. People’s participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance 6. Sustainable urban environment as a core development condition 	  

MAINSTREAMING AND HORIZONTAL INTEGRATION

Strategy	Potential Policy and Program Implications	Key Framework Principles (see Chapter 2.1.2)	SDGs
Utilize adaptive reuse and urban infill to optimize existing spaces and structures in built-up areas	<ol style="list-style-type: none"> Updating of CLUP and CDP guidebooks to include adaptive reuse and urban infill. Reviewing and updating of the following if necessary: BP 220 and PD 957 Subdivision Guidelines, HLURB Farmlot Guidelines, Industrial and Commercial Guidelines. Updating of incentives of national agencies (e.g. DILG, National Commission for Culture and the Arts [NCCA]) for LGUs incorporating adaptive reuse and urban infill. Drafting of adaptive reuse guidelines for heritage sites by the NCCA/National Historical Institute (NHI) Reviewing and updating of the National Building Code and Structural Code to include adaptive reuse guidelines. Updating of the planning/ landscape architecture/urban design/engineering curricula to include adaptive reuse and urban infill. 	<ol style="list-style-type: none"> Urbanization as catalyst for inclusive growth Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms Urban spaces as platforms for social and economic opportunity, cultural expression, and innovation 	 

MAINSTREAMING AND HORIZONTAL INTEGRATION

Strategy	Potential Policy and Program Implications	Key Framework Principles (see Chapter 2.1.2)	SDGs
Promote planned urban expansion as a means to control urban sprawl	<ol style="list-style-type: none"> 1. Inclusion In the NEDA guidelines of a requirement for provincial local governments to designate urban growth management policies to strengthen physical aspect of the Provincial Development and Physical Framework Plan. 2. Inclusion of the full concept of planned urban expansion in the HLURB Development Control Guide. 3. Updating of the public administration/planning/landscape architecture/urban design/ engineering curricula to include growth management policies. 	<ol style="list-style-type: none"> 1. Urbanization as catalyst for inclusive growth 2. Climate change resilience as a base for spatial and sectoral development 3. Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms 4. Urban spaces as platforms for social and economic opportunity, cultural expression, and innovation 5. People’s participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance 6. Sustainable urban environment as a core development condition 	  
Extend capacity development programs and projects to integrate the reduction of GHG emissions at the local planning level – CLUP, CDP and LCCAP	<ol style="list-style-type: none"> 1. Ensuring by national housing and planning agencies of required manpower and financial resources in providing capacity building programs for placemaking for LGUs. 2. Financial and institutional support for innovation hubs to operate. 	<ol style="list-style-type: none"> 2. Climate change resilience as a base for spatial and sectoral development 3. Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms 5. People’s participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance 6. Sustainable urban environment as a core development condition 	  

MAINSTREAMING AND HORIZONTAL INTEGRATION

Strategy	Potential Policy and Program Implications	Key Framework Principles (see Chapter 2.1.2)	SDGs
Housing			
Develop inclusive, integrated housing	<ol style="list-style-type: none"> Review of the Urban Development and Housing Act for possible enhancements and/or amendments in keeping with current and emerging housing concerns. Updating of the CLUP and CDP guidelines to emphasize implementation of inclusive and integrated housing, as well as socially inclusive and interconnected cities with improved mobility. Review of building standards. 	<ol style="list-style-type: none"> Urbanization as catalyst for inclusive growth Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms Urban spaces as platforms for social and economic opportunity, cultural expression, and innovation People's participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance 	    
Operationalize the National Informal Settlements Upgrading Strategy	<ol style="list-style-type: none"> Update of the Implementing Rules and Regulations of the Urban Development and Housing Act (UDHA IRR) for resettlement. Strengthening of mandates of Key Shelter Agencies through national legislation. Development of information, education, and communication (IEC) initiatives on family/household options for tenurial instruments. Development of clear government policy on cost recovery, especially for post-disaster housing and resettlement projects. 	<ol style="list-style-type: none"> Urbanization as catalyst for inclusive growth Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms People's participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance 	   

MAINSTREAMING AND HORIZONTAL INTEGRATION

Strategy	Potential Policy and Program Implications	Key Framework Principles (see Chapter 2.1.2)	SDGs
Improve affordability of housing programs and projects	<ol style="list-style-type: none"> Review of the HUDCC template on affordability analysis in the Local Shelter Plan (LSP). Update of the Comprehensive and Integrated Shelter Financing Act to consider the following: <ul style="list-style-type: none"> Low-cost public rental or ownership housing Mortgage revenue bonds (MRBs) MRBs for rent or ownership LGU/private sector partnership for public rental housing 	<ol style="list-style-type: none"> Urbanization as catalyst for inclusive growth Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms People’s participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance 	   
Promote resilient housing	<ol style="list-style-type: none"> Update of the National Building Code and Structural Code to include climate change adaptive design and construction methods, tools and material. 	<ol style="list-style-type: none"> Urbanization as catalyst for inclusive growth Climate change resilience as a base for spatial and sectoral development Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms Urban spaces as platforms for social and economic opportunity, cultural expression, and innovation People’s participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance Sustainable urban environment as a core development condition 	  

MAINSTREAMING AND HORIZONTAL INTEGRATION

Strategy	Potential Policy and Program Implications	Key Framework Principles (see Chapter 2.1.2)	SDGs
Enforce balanced housing provision of the UDHA	Development of guidelines for compliance to the 15% and 5% socialized housing requirement.	<p>1. Urbanization as catalyst for inclusive growth</p> <p>3. Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms</p>	  
Update appropriate housing unit size requirements based on local context	Inclusion of updated standards for housing unit size in the National Building Code and Structural Code.	<p>1. Urbanization as catalyst for inclusive growth</p> <p>2. Climate change resilience as a base for spatial and sectoral development</p> <p>3. Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms</p> <p>4. Urban spaces as platforms for social and economic opportunity, cultural expression, and innovation</p> <p>5. People's participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance</p> <p>6. Sustainable urban environment as a core development condition</p>	   

MAINSTREAMING AND HORIZONTAL INTEGRATION

Strategy	Potential Policy and Program Implications	Key Framework Principles (see Chapter 2.1.2)	SDGs
Make land available and accessible for housing	<ol style="list-style-type: none"> Adoption of land banking by Key Shelter Agencies and LGUs for socialized housing. Inventory of available government lands for socialized housing, e.g. foreclosed properties. Enforcement of idle land tax. Provision of policy and technical guidance on land pooling/readjustment, betterment levies, land value sharing, and other land management approaches. 	<ol style="list-style-type: none"> Urbanization as catalyst for inclusive growth Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms Urban spaces as platforms for social and economic opportunity, cultural expression, and innovation Sustainable urban environment as a core development condition 	 
Promote local shelter planning to encourage broad-based participation and ensure implementation of housing and land strategies	<ol style="list-style-type: none"> Enhancement of national and local institutional capacity in urban planning and management, as well as LSP preparation and implementation. Ensuring that the LSP is consistent with the mandated plans of the local government (CLUP, CDP). Use of the LSP as a venue to expand housing concepts and options within an overall shelter frame of government, including the following: <ul style="list-style-type: none"> long-term lease public rental housing housing to informal settlers as well as to underserved, low salaried employees or tax-payers living marginally just above the official poverty line. 	<ol style="list-style-type: none"> Urbanization as catalyst for inclusive growth Climate change resilience as a base for spatial and sectoral development Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms Urban spaces as platforms for social and economic opportunity, cultural expression, and innovation People's participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance Sustainable urban environment as a core development condition 	  

MAINSTREAMING AND HORIZONTAL INTEGRATION

Strategy	Potential Policy and Program Implications	Key Framework Principles (see Chapter 2.1.2)	SDGs
INFRASTRUCTURE			
Water and Sanitation			
<p>Streamline policies and improve the regulatory framework to ensure sustainable water security in urban areas</p>	<ol style="list-style-type: none"> Updating of policies to shorten the water permit application process. Review of the permit requirements of the National Water Resources Board (NWRB) and Metropolitan Water Reclamation District Board (MWRDB) from the Department of Environment and Natural Resources (DENR), Laguna Lake Development Authority (LLDA), LGUs, etc. to improve government clearance and permit processes. Review of guidelines for allowing private sector water concessionaires using ground water resources. Enforcement, review, and update of the CLUP guidelines to reflect focus on the following: <ul style="list-style-type: none"> delineating contested boundaries of watersheds for conservation management, including consolidating the regulatory jurisdictions of different national government agencies, regional agencies, and provincial and local government units; delineating local water concession zones in the context of watershed areas; review of water utility projects in accordance with watershed management plans. 	<ol style="list-style-type: none"> Climate change resilience as a base for spatial and sectoral development Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms Sustainable urban environment as a core development condition 	  

MAINSTREAMING AND HORIZONTAL INTEGRATION

Strategy	Potential Policy and Program Implications	Key Framework Principles (see Chapter 2.1.2)	SDGs
Promote and support innovative water and sanitation technologies	<ol style="list-style-type: none"> 1. Increase in budget allocations for research and development, and technology transfers for the Department of Science and Technology (DOST) and NWRB (as per Water Code). 2. Development of incentives for innovation through intellectual property patent support and/or grants, and through the Commission on Higher Education (CHED) and DOST. 3. Establishment of open database management and development of monitoring and evaluation systems for water and sanitation should be led by DOST and the Department of Information and Communications Technology (DICT). 	<ol style="list-style-type: none"> 2. Climate change resilience as a base for spatial and sectoral development 3. Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms 6. Sustainable urban environment as a core development condition 	  
Support financing for climate and disaster-resilient water and sanitation infrastructure	<ol style="list-style-type: none"> 1. Development of policy that enables the Public-Private Partnership Center to support local governments in developing metropolitan or regional proposals for public-private partnerships in water and sanitation; localization of public-private partnership project feasibility studies to support local initiatives. 2. Requirement of a comprehensive city/municipal infrastructure and service improvement plan in the CLUP and CDP as a basis for funding and support from provincial and national government. 3. Provision of credit facilities for climate and disaster resilient infrastructure projects by the People's Survival Fund (PSF), Landbank, Development Bank of the Philippines (DBP), Department of Finance (DOF), and other government financial institutions including local development funding organizations. 	<ol style="list-style-type: none"> 2. Climate change resilience as a base for spatial and sectoral development 3. Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms 6. Sustainable urban environment as a core development condition 	  

MAINSTREAMING AND HORIZONTAL INTEGRATION

Strategy	Potential Policy and Program Implications	Key Framework Principles (see Chapter 2.1.2)	SDGs
Strengthen local government capacity on water and sanitation governance	<ol style="list-style-type: none"> 1. Localizing infrastructure improvement and service provision through community contracts and self-help development projects should be led by the Department of Social Welfare and Development (DSWD) and Bottom-up Budgeting (BUB)/ Assistance to Disadvantaged Municipalities (ADM). 2. Provision of capacity building programs and alternative learning platforms for DILG's Salintubig Program. 	<p>2. Climate change resilience as a base for spatial and sectoral development</p> <p>5. People's participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance</p>	  
ENERGY			
Increase energy sourcing from low-carbon and other clean energy technologies	<ol style="list-style-type: none"> 1. Development of locational criteria and guidelines for local renewable energy investments plans and assistance to LGUs in energy land use suitability identification by the Department of Energy (DOE) and HLURB. 	<p>2. Climate change resilience as a base for spatial and sectoral development</p> <p>6. Sustainable urban environment as a core development condition</p>	  
Streamline procedures for development of renewable energy projects, to improve ease of doing business	<ol style="list-style-type: none"> 1. Review of legislation on ownership and competition. 2. Review of business processes and development of incentives by the Department of Trade and Industry (DTI), Securities and Exchange Commission (SEC), DENR, DOE, National Commission on Indigenous Peoples (NCIP), HLURB 	<p>2. Climate change resilience as a base for spatial and sectoral development</p> <p>5. People's participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance</p> <p>6. Sustainable urban environment as a core development condition</p>	  

MAINSTREAMING AND HORIZONTAL INTEGRATION

Strategy	Potential Policy and Program Implications	Key Framework Principles (see Chapter 2.1.2)	SDGs
Promote energy efficiency	<p>Enforcement, review, and update of the following if necessary:</p> <ul style="list-style-type: none"> • Renewable Energy Act • Biofuels Act • Green Jobs Act • Local and international green building standards • DOE Program on energy efficiency 	<p>2. Climate change resilience as a base for spatial and sectoral development</p> <p>5. People’s participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance</p> <p>6. Sustainable urban environment as a core development condition</p>	  
Explore and implement technology research and funding mechanisms that support small-scale renewable energy projects	<ol style="list-style-type: none"> 1. Exploration and implementation of research and funding mechanisms by the PSF, Landbank, DBP, DOF, and other government financial institutions, and local development funds. 2. Development of capacity development programs by DOST for micro, small, and medium enterprises (MSMEs), cooperatives, people’s organizations, etc. 	<p>2. Climate change resilience as a base for spatial and sectoral development</p> <p>5. People’s participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance</p> <p>6. Sustainable urban environment as a core development condition</p>	  
DRAINAGE			
Improve public investment in infrastructure for drainage networks	<ol style="list-style-type: none"> 1. Improvement of the National Mapping and Resource Information Authority (NAMRIA)’s capacity for comprehensive mapping of natural waterways. 2. Public-private partnerships and DPWH to focus on financing drainage projects. 	<p>2. Climate change resilience as a base for spatial and sectoral development</p> <p>3. Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms</p> <p>6. Sustainable urban environment as a core development condition</p>	  

MAINSTREAMING AND HORIZONTAL INTEGRATION

Strategy	Potential Policy and Program Implications	Key Framework Principles (see Chapter 2.1.2)	SDGs
Select and finance infrastructure development through community-driven budgeting processes for drainage projects	BUB/Assistance to Disadvantaged Municipalities (ADM) to localize infrastructure improvement and service provision through community contracts and self-help development projects.	<p>3. Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms</p> <p>5. People’s participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance</p> <p>6. Sustainable urban environment as a core development condition</p>	  
Ensure use of local climate change projections and disaster risks in designing drainage networks and related infrastructure	Enhancement of technical assistance and capacity development programs to enable LGUs to access the PSF for drainage-related climate change projects by the Philippine Atmospheric, Geophysical and Astronomical Services (PAGASA), Climate Change Commission (CCC), and other national government agencies (NGAs).	<p>2. Climate change resilience as a base for spatial and sectoral development</p> <p>3. Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms</p> <p>4. Urban spaces as platforms for social and economic opportunity, cultural expression, and innovation</p>	  
WASTE MANAGEMENT			
Encourage community based waste management programs	<p>1. Establishment of multi-agency cluster coordination committees for community-based solid waste management programs.</p> <p>2. Possible amendment to the Ecological Solid Waste Management Act to include permanent budget allocation for MRFs and review provisions classifying toxic domestic wastes.</p> <p>3. Review of the Environmental Impact Assessment (EIA) system to strengthen financing mechanisms for community-led environmental monitoring.</p>	<p>2. Climate change resilience as a base for spatial and sectoral development</p> <p>5. People’s participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance</p> <p>6. Sustainable urban environment as a core development condition</p>	  

MAINSTREAMING AND HORIZONTAL INTEGRATION

Strategy	Potential Policy and Program Implications	Key Framework Principles (see Chapter 2.1.2)	SDGs
Develop inter-LGU coordinated waste management plans for efficient regional mobilization of resources; Adapt modern technology and systems in monitoring waste management programs	<ol style="list-style-type: none"> 1. Amendments to the Ecological Solid Waste Management Act to allow common solid waste management facilities among clustered LGUs. 2. National support to LGUs in developing Local Solid Waste Management Plans (LSWMPs) and site suitability analysis for potential sanitary landfills. 	<ol style="list-style-type: none"> 2. Climate change resilience as a base for spatial and sectoral development 3. Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms 5. People’s participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance 6. Sustainable urban environment as a core development condition 	  
INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT)			
Open up Investments in ICT	<ol style="list-style-type: none"> 1. Review of rules on foreign direct investments in ICT. 2. Enforcement of the Philippine Competition Act. 	<ol style="list-style-type: none"> 3. Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms 	  
Establish a national broadband network infrastructure	Update of locational guidelines for utility site planning by the DICT with HLURB.	<ol style="list-style-type: none"> 3. Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms 5. People’s participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance 	  

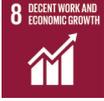
MAINSTREAMING AND HORIZONTAL INTEGRATION

Strategy	Potential Policy and Program Implications	Key Framework Principles (see Chapter 2.1.2)	SDGs
Encourage community participation through communication and connectivity	Development of IEC program by DICT.	<p>3. Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms</p> <p>5. People’s participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance</p>	  
Ensure access to government-owned data, including geospatial data	Strengthening of data.gov.ph by DICT, National Mapping and Resource Information Authority (NAMRIA), DILG, HLURB, Philippines Statistics Authority (PSA), DOST, PAGASA, and DENR.	<p>3. Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms</p> <p>5. People’s participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance</p>	  

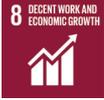
MAINSTREAMING AND HORIZONTAL INTEGRATION

Strategy	Potential Policy and Program Implications	Key Framework Principles (see Chapter 2.1.2)	SDGs
TRANSPORTATION			
Promote efficient urban transportation infrastructure	<ol style="list-style-type: none"> 1. Crafting of a Local Public Transport Route Plan (consolidation of operators) under DOTr. 2. Public utility vehicle (PUV) Modernization Program (including bus rapid transit and jeepney modernization). 3. Review and update of the CLUP and CDP guidebooks as necessary. 	<ol style="list-style-type: none"> 1. Urbanization as catalyst for inclusive growth 2. Climate change resilience as a base for spatial and sectoral development 3. Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms 4. Urban spaces as platforms for social and economic opportunity, cultural expression, and innovation 5. People’s participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance 6. Sustainable urban environment as a core development condition 	  

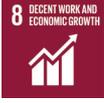
MAINSTREAMING AND HORIZONTAL INTEGRATION

Strategy	Potential Policy and Program Implications	Key Framework Principles (see Chapter 2.1.2)	SDGs
URBAN ECONOMY AND FINANCE			
ECONOMY			
Promote connectivity of economic activities	<ol style="list-style-type: none"> 1. Technical guidance on adopting network/system models for economic activity (to reflect rural-urban integration). 2. Review and update of the CLUP, CDP, Provincial Development and Physical Framework Plan (PDPFP), and Regional Development Plan. 	<ol style="list-style-type: none"> 1. Urbanization as catalyst for inclusive growth 2. Climate change resilience as a base for spatial and sectoral development 3. Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms 4. Urban spaces as platforms for social and economic opportunity, cultural expression, and innovation 5. People’s participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance 6. Sustainable urban environment as a core development condition 	  

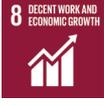
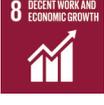
MAINSTREAMING AND HORIZONTAL INTEGRATION

Strategy	Potential Policy and Program Implications	Key Framework Principles (see Chapter 2.1.2)	SDGs
<p>Provide key infrastructure to support economic growth and development</p>	<p>Coordination among the DPWH, DOTr, HLURB, and HUDCC in the provision of key infrastructure.</p>	<ol style="list-style-type: none"> 1. Urbanization as catalyst for inclusive growth 2. Climate change resilience as a base for spatial and sectoral development 3. Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms 4. Urban spaces as platforms for social and economic opportunity, cultural expression, and innovation 5. People’s participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance 6. Sustainable urban environment as a core development condition 	   

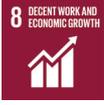
MAINSTREAMING AND HORIZONTAL INTEGRATION

Strategy	Potential Policy and Program Implications	Key Framework Principles (see Chapter 2.1.2)	SDGs
Enhance competitiveness of the workforce	<ol style="list-style-type: none"> 1. Enforcement, review, and update of the following as necessary: <ul style="list-style-type: none"> • Labor Code • Green Jobs Act • Philippine Labor and Employment Plan 2. Department of Labor and Employment (DOLE): <ul style="list-style-type: none"> • Assessment of the Philippine labor market • Employment profile • Matching jobs with educational qualifications • Assessment of the curricular offerings vis-à-vis the labor market • Skills requirement for job opportunities 3. Adoption of a program monitoring and evaluation system. 4. Adoption of the Philippine Qualifications Framework. 	<ol style="list-style-type: none"> 1. Urbanization as catalyst for inclusive growth 2. Climate change resilience as a base for spatial and sectoral development 3. Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms 4. Urban spaces as platforms for social and economic opportunity, cultural expression, and innovation 5. People’s participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance 6. Sustainable urban environment as a core development condition 	  

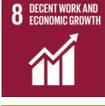
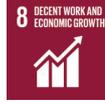
MAINSTREAMING AND HORIZONTAL INTEGRATION

Strategy	Potential Policy and Program Implications	Key Framework Principles (see Chapter 2.1.2)	SDGs
Strengthen key economic sectors	<ol style="list-style-type: none"> Increase of technical capacity for needed focus on one of the CLUP's Special Area Studies: green growth, including value chain assessment and planning. Review, development, and localization of guidelines, the Climate Change Act, and the DRRM Act. Establishment of enterprise innovation centers. Strengthening of the International Organization for Standardization (ISO) certification. Enforcement of the Green Jobs Act. 	<ol style="list-style-type: none"> Urbanization as catalyst for inclusive growth Climate change resilience as a base for spatial and sectoral development Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms Urban spaces as platforms for social and economic opportunity, cultural expression, and innovation People's participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance Sustainable urban environment as a core development condition 	   
Support micro, small, and medium enterprises (MSMEs)	<ol style="list-style-type: none"> Enforce, review, and update of the following as necessary: <ul style="list-style-type: none"> Magna Carta for MSME Barangay Micro Business Enterprise Act MSME Development Plan Go Negosyo Act Implementation and enhancement of lending/ microfinance programs by the Cooperative Development Authority (CDA) and DTI, e.g. Pondo sa Pagbabago at Pag-assenso Program. 	<ol style="list-style-type: none"> Urbanization as catalyst for inclusive growth Urban spaces as platforms for social and economic opportunity, cultural expression, and innovation People's participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance 	  

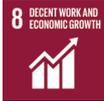
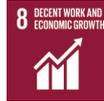
MAINSTREAMING AND HORIZONTAL INTEGRATION

Strategy	Potential Policy and Program Implications	Key Framework Principles (see Chapter 2.1.2)	SDGs
Provide support to the informal sector	<ol style="list-style-type: none"> 1. Review of business registration systems at the barangay level to integrate informal. 2. Exploration of mechanisms to enable organization of and engagement with informal sector operators by the CDA and DTI. 	<ol style="list-style-type: none"> 1. Urbanization as catalyst for inclusive growth 2. Climate change resilience as a base for spatial and sectoral development 3. Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms 4. Urban spaces as platforms for social and economic opportunity, cultural expression, and innovation 5. People’s participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance 6. Sustainable urban environment as a core development condition 	   

MAINSTREAMING AND HORIZONTAL INTEGRATION

Strategy	Potential Policy and Program Implications	Key Framework Principles (see Chapter 2.1.2)	SDGs
Promote and support green industries	<ol style="list-style-type: none"> 1. Enforcement of the Green Jobs Act. 2. Review of the CLUP (i.e. Green Growth) and CDP guidelines, and other national and subnational guidelines to ensure integration of low-emission and resource-efficient economic and industrial development principles and actions, as well as the provision of assistance with the transition from informal to formal sector. 	<ol style="list-style-type: none"> 1. Urbanization as catalyst for inclusive growth 2. Climate change resilience as a base for spatial and sectoral development 3. Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms 4. Urban spaces as platforms for social and economic opportunity, cultural expression, and innovation 5. People's participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance 6. Sustainable urban environment as a core development condition 	     
Increase investments	Review of fiscal incentives as well as other types of incentives for new investors at the national and local levels.	<ol style="list-style-type: none"> 1. Urbanization as catalyst for inclusive growth 3. Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms 4. Urban spaces as platforms for social and economic opportunity, cultural expression, and innovation 5. People's participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance 	  

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Strategy	Potential Policy and Program Implications	Key Framework Principles (see Chapter 2.1.2)	SDGs
Improve expenditure efficiency	<ol style="list-style-type: none"> Update of the Department of Finance (DOF)–Bureau of Local Government Finance Manuals: <ul style="list-style-type: none"> Local Public Financial Management Tools for the Electronic Statement of Receipts and Expenditures Local Treasury Operations Manual Provision of capacity development/training to LGUs (conducted by DOF and/or the Local Government Academy [LGA]). Strengthening of capacity development on CLUP-CDP-Local Development Investment Program process/cycle. 	<p>4. Urban spaces as platforms for social and economic opportunity, cultural expression, and innovation</p> <p>5. People’s participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance</p>	  
Promote transparency in financial transactions that allow auditing of local budgets and financial transactions	<ol style="list-style-type: none"> Capacity development for Commission on Audit. Capacity development for the establishment of local budget and information systems that promote transparency. 	<p>4. Urban spaces as platforms for social and economic opportunity, cultural expression, and innovation</p> <p>5. People’s participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance</p>	  
Improve the tax collection system and structure	<ol style="list-style-type: none"> Inclusion of tax mapping in technical assistance/capacity development for local GIS. Review and update of the Tax Code and Local Government Code (LGC). 	<p>4. Urban spaces as platforms for social and economic opportunity, cultural expression, and innovation</p> <p>5. People’s participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance</p>	 

MAINSTREAMING AND HORIZONTAL INTEGRATION

Strategy	Potential Policy and Program Implications	Key Framework Principles (see Chapter 2.1.2)	SDGs
Update land valuation system as basis for real property taxation	<ol style="list-style-type: none"> Update of the DOF–Bureau of Local Government Finance Manuals: <ul style="list-style-type: none"> Manual on Real Property Appraisal and Assessment Operations Philippine Valuation Standards Manual Provision of capacity development/training for LGUs (conducted by DOF and/or the Local Government Academy [LGA]). 	<ol style="list-style-type: none"> Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms Urban spaces as platforms for social and economic opportunity, cultural expression, and innovation People’s participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance 	 
Implement idle land tax	<ol style="list-style-type: none"> Strict imposition of the idle land tax and special assessment tax and appropriate sanctions based on applicable laws. Review and update of the Local Tax Code and LGC. Capacity development/training for LGUs (conducted by DOF and LGA). Update of DOF–Bureau of Local Government Finance Manuals: <ul style="list-style-type: none"> Manual on Real Property Appraisal and Assessment Operations Philippine Valuation Standards Manual 	<ol style="list-style-type: none"> Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms Urban spaces as platforms for social and economic opportunity, cultural expression, and innovation People’s participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance 	  
Implement a benefit levy or special assessment	<ol style="list-style-type: none"> Update of DOF–Bureau of Local Government Finance Manuals: <ul style="list-style-type: none"> Manual on Real Property Appraisal and Assessment Operations Philippine Valuation Standards Manual Full implementation, expansion, and enhancement of Chapter 5 of the LGC (Special Levies on Real Property). Capacity development/training for LGUs (conducted by DOF and LGA). 	<ol style="list-style-type: none"> Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms Urban spaces as platforms for social and economic opportunity, cultural expression, and innovation People’s participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance 	 

MAINSTREAMING AND HORIZONTAL INTEGRATION

Strategy	Potential Policy and Program Implications	Key Framework Principles (see Chapter 2.1.2)	SDGs
Enhance public-private partnerships	Support for local governments in developing metropolitan or regional proposals for public-private partnerships in water and sanitation by the Public-Private Partnerships Center. Localization of public-private partnerships project feasibility studies to support local initiatives.	<p>4. Urban spaces as platforms for social and economic opportunity, cultural expression, and innovation</p> <p>5. People's participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance</p>	  
Institutionalize participatory budgeting	<p>Inclusion of participatory budgeting (formerly bottom-up budgeting) in the General Appropriations Act, e.g. BUB; Assistance to Disadvantaged Municipalities (ADM).</p> <p>DILG and Department of Budget and Management (DBM).</p>	<p>4. Urban spaces as platforms for social and economic opportunity, cultural expression, and innovation</p> <p>5. People's participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance</p>	 
Develop and strengthen a robust local government debt market	<p>Revisiting and promoting Local Government Code provisions on credit facilities for infrastructure and other local development projects.</p> <p>Capacity development for LGUs to consider credit lines, local government bonds, and securities to fund development and livelihood projects under the LDIP.</p>	<p>4. Urban spaces as platforms for social and economic opportunity, cultural expression, and innovation</p> <p>5. People's participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance</p>	 

MAINSTREAMING AND HORIZONTAL INTEGRATION

Strategy	Potential Policy and Program Implications	Key Framework Principles (see Chapter 2.1.2)	SDGs
GOVERNANCE			
Harmonize legal frameworks and administrative hierarchies to improve policy implementation, government service administration, and development opportunities	<ol style="list-style-type: none"> 1. Development and implementation of policies to address practitioner-perceived gaps between regional and provincial, as well as between provincial and city/municipal plans of government. 2. Reconciling of policies with development plans of NGAs (e.g. NHA, MMDA, DPWH, etc.), linking local, metropolitan/regional, and national goals for development of Filipino human settlements, and provision of adequate housing for all. 3. Provision of multilevel capacity building to address gaps in planning and administration. 	<ol style="list-style-type: none"> 1. Urbanization as catalyst for inclusive growth 2. Climate change resilience as a base for spatial and sectoral development 3. Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms 4. Urban spaces as platforms for social and economic opportunity, cultural expression, and innovation 5. People's participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance 6. Sustainable urban environment as a core development condition 	 
Institutionalize the review, monitoring, and evaluation of urban development policies, plans, and programs	<ol style="list-style-type: none"> 1. Database improvement, capacity development, LGC, etc. 2. Implementation of policies to prevent post-electoral unreasonable or politically-motivated program and project closure or derailment, and to ensure continuity of programs (e.g. inter-political party agreements that guarantee respect for, and the continuity of ongoing projects in Bataan). 3. Penalties for unjustified non-continuation of project. 4. Review of planning approaches and paradigms. 	<ol style="list-style-type: none"> 2. Climate change resilience as a base for spatial and sectoral development 3. Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms 5. People's participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance 	 

MAINSTREAMING AND HORIZONTAL INTEGRATION

Strategy	Potential Policy and Program Implications	Key Framework Principles (see Chapter 2.1.2)	SDGs
Clarify, review, and update institutional mandates	<ol style="list-style-type: none"> 1. Establishment and funding of mechanisms for the dissemination and implementation of the NUDHF. 2. Establishment of special institutional mechanisms for selected priority areas (e.g. housing). These implementing organizations should be able to detect, correct, and build up processes for housing, land use, and territorial management, based on the five principles guiding this report. 3. Passage of a law to create a unified housing and land development agency under the executive branch of government i.e. Department of Human Settlements and Urban Development. 	<ol style="list-style-type: none"> 4. Urban spaces as platforms for social and economic opportunity, cultural expression, and innovation 5. People's participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance 	 
Formalize LGU associations, functional clusters, or other supra-local administrative authorities/arrangements	<ol style="list-style-type: none"> 1. Possible expansion of Metropolitan Manila Development Authority (MMDA)'s scope from Metro Manila to Mega Manila. 2. Creation of a metropolitan urban development authority to regulate proposed or soon-to-be-formalized metropolitan authorities, as well as to supervise metropolitan governance. 3. Possible creation of development authorities or LGU alliances encompassing bioregions i.e. watershed or river basins, to improve planning and management capability of LGUs under the ridge-to-reef approach. 	<ol style="list-style-type: none"> 1. Urbanization as catalyst for inclusive growth 2. Climate change resilience as a base for spatial and sectoral development 3. Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms 4. Urban spaces as platforms for social and economic opportunity, cultural expression, and innovation 5. People's participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance 6. Sustainable urban environment as a core development condition 	 

MAINSTREAMING AND HORIZONTAL INTEGRATION

Strategy	Potential Policy and Program Implications	Key Framework Principles (see Chapter 2.1.2)	SDGs
<p>Manage public spaces as venues for participatory governance</p>	<ol style="list-style-type: none"> 1. Securement of funding for the purchase of public spaces, and for police power to correct spatial injustices and imbalances from prior unregulated private sector development. 2. Acceleration of reforms in the property administration and valuation system. 3. Reflection of controls over land and water use in consistently-implemented zoning ordinances with much fewer exemptions, and more stakeholder consultation beforehand. 4. Continuation of reforms already achieved under the 2nd Land Administration and Management Project (LAMP2) (DENR, DOJ, DOF, etc.) by the Land Administration and Management, including Public Space Prioritization, in order to: <ul style="list-style-type: none"> • determine with reasonable finality the location, quality, and measurements of land-based resources, along with comprehensive titling of all parcels; • invigorate a relatively slow and non-inclusive property market; and • integrate with other major projects such as the on-going national Cadastral Survey Program (DENR A.O. 2001-23). 5. Implementation of protocol for land use rationalization: issuance of titles only to those land uses and real estate developments that comply with the National Building Code. However, this latter will require close coordination between the Land Regulation Authority and LGUs. 6. The institution of a policy to recover all legal easements and to prosecute perpetrators of illegal occupation, including public officials. Corresponding retributive levies may be imposed for violators of the National Building Code (e.g. for encroachments on right-of-way areas or legal setbacks). 	<ol style="list-style-type: none"> 1. Urbanization as catalyst for inclusive growth 2. Climate change resilience as a base for spatial and sectoral development 3. Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms 4. Urban spaces as platforms for social and economic opportunity, cultural expression, and innovation 5. People’s participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance 6. Sustainable urban environment as a core development condition 	 

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Strategy	Potential Policy and Program Implications	Key Framework Principles (see Chapter 2.1.2)	SDGs
Operationalize people-public-private partnerships	Review, full implementation and/or enhancement of provisions in the LGC pertaining to broad-based participation (i.e. local development council).	<ol style="list-style-type: none"> 1. Urbanization as catalyst for inclusive growth 2. Climate change resilience as a base for spatial and sectoral development 3. Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms 4. Urban spaces as platforms for social and economic opportunity, cultural expression, and innovation 5. People’s participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance 6. Sustainable urban environment as a core development condition 	 
Ensure urban safety and security	<ol style="list-style-type: none"> 1. Mainstreaming and implementation through risk assessment and response in local development planning (CLUP, CDP). 2. Capacity development for local planners. 	<ol style="list-style-type: none"> 2. Climate change resilience as a base for spatial and sectoral development 3. Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms 5. People’s participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance 6. Sustainable urban environment as a core development condition 	 

MAINSTREAMING AND HORIZONTAL INTEGRATION

Strategy	Potential Policy and Program Implications	Key Framework Principles (see Chapter 2.1.2)	SDGs
Enforce delineation and protection of special areas such as protected areas, prime agriculture areas, key biodiversity areas, critical habitats, heritage areas, and ancestral domains	<ol style="list-style-type: none"> 1. Monitoring of CLUP and zoning ordinance implementation. 2. Update of database and policies on National Integrated Protected Areas System (NIPAS) and similar areas for protection. 3. Passage of the National Land Use Act. 	<ol style="list-style-type: none"> 2. Climate change resilience as a base for spatial and sectoral development 3. Spatially and sectorally integrated settlements within coherent and efficient urban systems and forms 6. Sustainable urban environment as a core development condition 	    
Capacitate the staff at all levels of government	Policy and program development, as well as knowledge management.	<ol style="list-style-type: none"> 5. People's participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance 	 
Strengthen local / decentralized governance mechanisms as the core of urban governance and management	Review of the LGC, including federalism, considering implications on governance.	<ol style="list-style-type: none"> 5. People's participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance 	 

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Strategy	Potential Policy and Program Implications	Key Framework Principles (see Chapter 2.1.2)	SDGs
Ensure ethical and effective local leadership for safe, resilient, sustainable, and inclusive cities	<ol style="list-style-type: none"> Enforcement, review and update of (as necessary): <ul style="list-style-type: none"> Code of Conduct and Ethical Standards for Public Officials and Employees of the Republic of the Philippines The Code of Good Governance for the Professions PRC Code of Good Governance for the Professions in the Philippines Seal of Good Local Governance Institution of strict policies to place or share accountability of local officials and professional workers (e.g. technical specialists) for any violations of urban governance. Review LGC, including federalism, considering implications on governance. 	5. People’s participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance	 
Improve coordination and collaboration among agencies concerned with urban development and housing	<ol style="list-style-type: none"> Continuous rationalization and reduction, whenever feasible, of the number of plans required of LGUs by various laws. Review and update of the LGC, to include more specific guidelines on Local Development Councils, zoning and betterment levies, as well as other tools, especially those that promote proper land management. Revision of terminologies by authorized bodies: the Philippine urban system articulates itself, standard definitions for “medium” and “small” cities should be explored, and made consistent with UN definitions, if it is practical to do so. 	5. People’s participation and empowerment as foundation of urban governance, facilitating sustainable resource use, planning, management, and finance	 

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ADDITIONAL POLICY AND PROGRAM IMPLICATIONS RELATIVE TO ASEAN INTEGRATION

Consequences of Openness, Resetting Economic Targets, and Cities' Roles in Integration

The Philippines has quickly acceded to the ASEAN Integration by lowering 99% of its tariffs and promoting foreign investment. The country's economic managers and, by extension, commercial and taxation regulators at the local level, however, need to consider the consequences of the rapid removal of tariffs. Clearly, the government (e.g. Bureau of Customs and Bureau of Immigration) will lose revenues, at least in the short run, and it is up to the various decision-makers to monitor and make sure that government and the economy as a whole recoup these losses. This may be done through the prudent handling of new trade opportunities presented by markets opening in ASEAN neighbors abroad, as well as through the collection of appropriate and reasonable fees and taxes from foreign locators in the Philippines.

Some key industries that build on Filipino comparative advantage may still need indirect protection of some kind, especially if they are located in sensitive areas. Also necessary is the protection of economic activities that serve grassroots development and have a direct

impact on alleviating poverty, even if less efficient from a macro-perspective. To this end, leaders of cities and municipalities need to inventory their productive assets and decide how foreign competition should be allowed to coexist with local startup and small-scale enterprises

Production Preparations: Policies for Resource Bases and Logistics Nodes

As part of ASEAN Integration, Filipino planners will have to coordinate among themselves and with their assigned foreign counterparts to rationalize policies for roles in the value chains and value webs that have already begun to form because of the economic community. For example, common agreement should be reached on which sites are best suited as sources of raw materials, and which are best suited for manufacturing and packaging/distribution.

In relation to this, decision-makers should shift and widen their perspectives to appreciate Philippine resource areas as potential material sources for other member-states to draw from, subject to the fair and sustainable pricing and quality controls. Reciprocally, the food-basket areas and extraction fields of other countries are potential sources for Philippines needs, subject to fair trade and the formalities of commercial exchange. For instance, traditional agricultural areas in

Central Luzon and the Southern Tagalog may have to service a wider Filipino and foreign population, as will marine extraction areas in the Visayas and eastern seaboard. Conversely, the rice-growing areas of Vietnam, Thailand, and Cambodia may be tapped for Philippine consumers.

In order to enhance trade, good logistics planning is required, along with construction of facilities like: (1) 24/7 intermodal transportation facilities or retrofitting of existing airports and seaports with rail, truck, and bus facilities; (2) construction of secure, all-weather warehousing facilities, and (3) establishment of one-stop-shop type support services for permits, customs, and other legalities. Some attention will also have to be given to the modes of transport available, and their accessibility to potential businesses as well as the general public.

Policies for Property Rights, Responsibilities and Zoning

Existing land administration and management regulations as well as zoning will have to be revisited to ensure that entry of foreign firms that would like to build on and use local land and municipal waters shall be facilitated; provided however, that there is no compromise of local public welfare and national territorial rights. To this end, policies will be needed between and among LGU partners as well as at the metropolitan and national levels to standardize effective and balanced locational practices for foreign investors and joint venture partly-Filipino companies. Policies for regulation, inspection, quarantine, and quality control may also have to be enhanced, and one possible innovation is to require a portion of large-scale investments to be devoted to housing, at least factory housing for all the rank-and-file as well as the officers of the incoming firms.

3.2 COMMUNICATIONS AND ROLLOUT

The following strategies will ensure that the NUDHF is fully realized:

1. Promotion of the NUDHF in fora and orientations with provincial and regional land use committees.
2. Formulation of an action plan in coordination with the NUDHF Technical Working Group, identifying responsibilities of government agencies in the implementation of the strategies.
3. Formulation of a communications plan and support to capacity development of HLURB central and regional offices, Key Shelter Agencies, subnational offices, and other stakeholders.
4. Integration of applicable and appropriate policies and strategies identified in the NUDHF in the formulation of CLUPs and ZOs.
5. Development of an urban management database.
6. Strengthening of the policy development and land use planning group, especially to conduct research, policy development, and training.
7. Updating of current policies and legislation.

3.3 MONITORING AND REVIEW

A results-based monitoring plan should be developed based on the strategies from Section 3, which are to be translated into action plans for desired results by concerned agencies, and which ultimately help shape policy and program recommendations. The plan should articulate the methodology of monitoring and review and the resources needed to carry out monitoring, and can include: activities and institutional roles regarding monitoring and review; a monitoring framework with which to track the progress of efforts made towards meeting desired results or objectives; and a guideline or manual for operationalizing the monitoring and review framework.

National monitoring will be led by HUDCC and the NEDA (aligned with the Philippine Development Plan monitoring and reporting). HUDCC and NEDA have to establish what gets monitored, when, and by whom. An option to be considered would be the alignment of monitoring with regular National Land Use Committee project monitoring.

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Subnational, plan-based monitoring will be led by HLURB (province, LGU), where monitoring for the NUDHF will be integrated in the monitoring and review of local and subregional physical plans and based on the timeframe of these plans.

Monitoring and review requires sectoral agencies to include adherence to the NUDHF of their sector in the monitoring of their programs and projects. It may be determined by agencies based on their existing monitoring framework, or may be enhanced as needed.

The following are components that may be considered for inclusion in the results-based monitoring framework:

- **Roles and Responsibilities** — While national monitoring will be led by HUDCC and NEDA, and subnational monitoring by HLURB, the framework has to further specify the roles and responsibilities of all concerned agencies, offices, departments, teams, and even individuals in monitoring and review, as well as any institutional arrangements between or among them, at a level of detail that can show who monitors what.

- **Indicators** — Using indicators, monitoring has to be done for both **process**, to ensure that commitments and tasks agreed on are being carried out by the concerned agencies, and **outcomes**, to see whether objectives are being met. Measurement of what gets monitored, **baselines** where available, and measurable **targets** have to be agreed on in the development of indicators

- **Process Indicators**
Include the conduct of activities carried out by concerned agencies in the fulfillment of their commitments and/or agreed tasks and responsibilities

- **Outcome Indicators**
Include results or effects that may be ascribed to in whole or in part to strategies and/or action points agreed on in implementing the framework and achieving the framework's objectives

- **Validation Tools** — to verify the accuracy of both quantitative and qualitative data gathered during monitoring, and to confirm consistency in results

- **Data Management**

- Schedule or intervals of data collection
- Data source/s of each indicator
- Methods for data collection (e.g., field visits, surveys, data collection from existing databases, and other relevant data sources)
- Parties responsible for data collection
- How can the data be stored and who will have access (will there be levels of access?)

- **Reporting on monitoring data** — Reporting should include monitoring data as well as an analysis or review of the information gathered during monitoring to determine not only whether activities and outcomes are producing desired results, but also to identify any adjustments that need to be made in both areas. A reporting template has to be developed to define the scope of the data to be reported, including factors that expedite, contribute to, or impede the fulfillment of targets.

- **Frequency** of reporting and in what manner it will be done have to be agreed on.

- **Feedback mechanism** — Gather perceptions, responses, reactions, and other inputs from both actors of the NUDHF strategies and action points as well as recipients or beneficiaries of the outputs. Feedback can inform the progress of the NUDHF strategies and action, especially in identifying adjustments that may need to be made or gaps and emerging challenges that need to be addressed. A feedback mechanism also promotes a participatory and consultative process.

References:

Planning for Climate Change: A Strategic, Values-based Approach for Urban Planners. UN-Habitat. 2014
Handbook on Planning, Monitoring and Evaluating for Development Results. UNDP. 2009.

CONTEXT AND CRITIQUE: THE FILIPINO URBAN NARRATIVE

4.1 URBANIZATION TRENDS AND PROJECTIONS

4.1.1 Global Trends and Projection

More people in the world today live in urban areas than in rural areas: about 54% of the world's population are urban dwellers, according to 2014 data.⁴⁰ Asia is home to 53% of the world's urban population, followed by Europe (14%) and Latin America and the Caribbean (13%). All regions of the world, including the more developed and less developed regions, are expected to sustain their pace of urbanization in the coming decades. It is in Asia and Africa, however, where urbanization will be fastest. By 2050, Asia and Africa will be about 64% and 56% urban, respectively.

The world's urban population has expanded since 1950 from 746 million urban residents to 3.9 billion in 2014. It is expected to reach 6.3 billion in 2050, with 90% of the increase taking place in the urban areas of Asia and Africa.

Nearly half of the world's urban residents live in small settlements of less than 500,000 persons. This debunks the notion that urban residents live in megacities, or urban agglomerations with more than 10 million inhabitants. In fact, only around one in eight urban residents live in the 28 megacities of the world.

Some decades ago, many of the largest urban agglomerations were located in the more developed regions of the world. Today, however, many large cities and urban agglomerations are found in the global South. The fastest growing urban agglomerations are medium-sized cities and cities with less than 1 million inhabitants in Asia and Africa. Agglomerations of 500,000 to 1 million inhabitants account for 26 of the 43 fastest-growing cities in the world. Another 16 are medium-sized cities of 1 million to 5 million inhabitants.⁴¹

Table 6: Population of Urban and Rural Areas at Mid-Year (thousands) and Percentage Urban, 2014

Major area, region, country or area	Urban	Rural	Total	% Urban
WORLD	3,880,128	3,363,656	7,243,784	53.6
More developed regions	980,403	275,828	1,256,231	78
Less developed regions	2,899,725	3,087,828	5,987,553	48.4
Least developed countries	283,855	635,275	919,129	30.9
Less developed regions, excluding least developed countries	2,615,870	2,452,553	5,068,424	51.6
Less developed regions, excluding China	2,115,652	2,446,901	4,562,552	46.4
High-income countries	1,035,404	256,311	1,291,715	80.2
Middle-income countries	2,555,840	2,484,859	5,040,699	50.7
Upper-middle-income countries	1,541,090	920,812	2,461,902	62.6
Lower-middle-income countries	1,014,751	1,564,047	2,578,798	39.3
Low-income countries	268,441	616,562	885,003	30.3

⁴⁰ United Nations, World Urbanization Prospects - The 2014 Revision (New York, 2014).

⁴¹ Ibid.

CONTEXT AND CRITIQUE: THE FILIPINO URBAN NARRATIVE

Harnessing the benefits of this continuing and rapid urbanization is a challenge for the world's cities, especially in the lower and middle income countries in Asia and Africa where urbanization is expected to occur fastest.

Table 7: The 30 Largest Urban Agglomerations Ranked by Population Size, 2015 ⁴²

Rank order	Country or area	Urban Agglomeration	Population (millions)
1	Japan	Tokyo	38
2	India	Delhi	25.70
3	China	Shanghai	23.74
4	Brazil	São Paulo	21.07
5	India	Mumbai (Bombay)	21.04
6	Mexico	Mexico City	21
7	China	Beijing	20.38
8	Japan	Kinki M.M.A. (Osaka)	20.24
9	Egypt	Al-Qahirah (Cairo)	18.77
10	United States	New York-Newark	18.59
11	Bangladesh	Dhaka	17.60
12	Pakistan	Karachi	16.62
13	Argentina	Buenos Aires	15.18
14	India	Kolkata (Calcutta)	14.86
15	Turkey	Istanbul	14.16
16	China	Chongqing	13.33
17	Nigeria	Lagos	13.12
18	Philippines	Manila	12.95
19	Brazil	Rio de Janeiro	12.90
20	China	Guangzhou, Guang dong	12.46
21	United States	Los Angeles-Long Beach-Santa Ana	12.31
22	Russian Federation Democratic	Moskva (Moscow)	12.17
23	Republic of the Congo	Kinshasa	11.59
24	China	Tianjin	11.21
25	France	Paris	10.84
26	China	Shenzhen	10.75
27	Indonesia	Jakarta	10.32
28	United Kingdom	London	10.31
29	India	Bangalore	10.09
30	Peru	Lima	9.90

⁴² United Nations, Department of Economic and Social Affairs, Population Division, World Urbanization Prospects: The 2014 Revision (2014).

The pace and scope of urbanization in Asia and the Pacific is unprecedented. The urban population in the Asia and Pacific region is expected to reach 50% by 2018.⁴³ Between 1980 and 2010, the region's cities grew by around one billion people. Projections by the UN Population Division indicate that by 2040, cities in Asia and the Pacific will add another one billion to the population.

Asia is home to 17 of the world's megacities; three of them—Tokyo, Delhi, and Shanghai—are the world's largest. By 2030, the region is projected to have no less than 22 megacities.⁴⁴ Megacities are now giving way to the emergence of mega-urban regions that encompass cities, towns, *barangays*, and rural areas, connected by planned or unplanned urban corridors.

In spite of the presence of these large agglomerations, only a little over 10% of the urban population in Asia and the Pacific region live in megacities. The urban population in Asia and the Pacific is predominantly located in medium-sized and small cities, and it is in these cities where urban transition is unfolding.⁴⁵

Urbanization in the region is accompanied by economic growth, including the generation of employment and creation of a large middle class in the past two decades, especially in North, Northeast, and Southeast Asia. The economic structure has shifted in favor of the fast-growing industry and services sectors, which have generated employment for Asians.

It is apparent, however, that the benefits of economic progress have reached the population disproportionately. While hundreds of millions of persons have been lifted out of poverty and a two billion-strong urban middle class has emerged, large urban slum populations and hefty populations of the poor in Asia remain. Stark examples of such disparity are found in urban areas, where rights such as adequate shelter, safe neighborhoods, clean water and sanitation, health care, transport and access to modern energy systems, or even a legally defined address, are still inaccessible to some. Women and youth face additional barriers to finding employment because of their lower

educational levels and, in some cases, traditional family norms. These two groups comprise a large proportion of the urban under-employed and unemployed in Asia and the Pacific.⁴⁶

In primary cities in many developing countries, the provision of housing, basic services and infrastructure has not kept pace with the burgeoning urban population. Many primary cities are characterized by serious infrastructure and service shortfalls, few opportunities for economic growth, and rising urban poverty. Since future urban growth will largely be in secondary cities, it is essential that these are planned to avoid the same situation. Addressing services and infrastructure backlog, and providing opportunities in small and medium cities will help harness their potential, and help achieve sustainable development in the context of the urban-rural continuum.⁴⁷

4.1.2 Urbanization in the Philippines

4.1.2.1 Archipelagic Philippines

The Philippines has a total land area of approximately 343,448.32 km², comprising at least 7,641 islands.⁴⁸ Bounded on the north by the Balintang Channel; on the south by the Sulu and Celebes Seas; on the east by the Philippine Sea and Pacific Ocean; and on the west by the West Philippine Sea, the Philippine archipelago is one of the largest island groups in the world, with three major divisions:

- Luzon - 147,947.63 km²
- Visayas - 59,873.84 km²
- Mindanao - 135,626.85 km²

The country has multilevel administrative subdivisions, comprising 18 regions, 81 provinces, 145 cities, 1,489 municipalities, and 42,036 *barangays*.⁴⁹

The Philippines has a 36,289 km coastline, the fifth longest in the world. About 60% of the population

⁴³ UN-Habitat and UNESCAP, *State of Asian and Pacific Cities 2015* (2015).

⁴⁴ UN-Habitat, *National Urban Policy*.

⁴⁵ UN-Habitat and UNESCAP, *State of Asian and Pacific Cities 2015* (2015).

⁴⁶ *Ibid.*

⁴⁷ UN-Habitat, *National Urban Policy*.

⁴⁸ CNN Philippines, "More islands, more fun in PH," February 20, 2016, <http://cnnphilippines.com/videos/2016/02/20/More-islands-more-fun-in-PH.html>.

⁴⁹ The Philippine Government, *Regional and Provincial Summary - Number of Provinces, Cities, Municipalities and Barangays* (2018) <http://www.dilg.gov.ph/facts-and-figures/Number-of-Provinces-Cities-Municipalities-and-Barangays-by-Region/32>.

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live in 832 coastal cities and municipalities and depend on the marine and coastal resources for sustenance and livelihood. The archipelagic nature of the Philippines, however, makes it highly vulnerable to the impacts of climate change. It also presents a challenge in the integration of infrastructure and delivery of basic services.⁵⁰

4.1.2.2 Population and urbanization trends and projections

Population Growth

The total population of the Philippines is 100,981,437 as of August 1, 2015.⁵¹ The nation grew by 8.64 million between 2010 and 2015, and by 24.47 million between 2000 and 2015.⁵²

Table 8: Total Population of the Philippines, 2000-2015 ⁵³

Census Year	Census Reference Date	Population
2000	May 1, 2000	76,504,077
2010	May 1, 2010	92,335,113
2015	August 1, 2015	100,981,437

The average annual growth rate for the period of 2010 to 2015 is 1.72%. This population growth rate is slower than the 1.9% growth rate for 2000 to 2010.

Table 9: Average Annual Population Growth Rate, Philippines, Censal Periods 2000-2010, 2010-2015 ⁵³

Reference Period	Annual Population Growth Rate (in percent)
2010-2015	1.72
2000-2010	1.9

Over the years, the Philippines has made real progress in slowing its population growth rate, from 2.36% in 1995 to 2000 to 2.04% in 2000 to 2007. The Philippine population growth rate of 1.72%, however, is still one of the fastest in the world. It is higher than the regional growth rates in Asia (0.98%), Oceania (1.45%), Latin America and the Caribbean (1.05%), North America (0.45%), and Europe (0.06%). Only African countries are growing faster than the Philippines, at 2.53%.⁵⁴

The country's population density increased to 338 persons per km² according to the PSA's 2015 population census. This is an increase from 308 persons per km² in 2010 and 255 persons per km² in 2000.⁵⁵

⁵⁰ Asian Development Bank, Philippine Urban Assessment (2014).

⁵¹ Philippine Statistics Authority, 2015 Census of Population, (2015).

⁵² The 2000, 2010, and 2015 censuses of Philippine population by the Philippine Statistics Authority.

⁵³ Ibid.

⁵⁴ United Nations, Department of Economic and Social Affairs, Population Division, World Population Prospects: The 2015 Revision – Key Findings and Advance Tables (New York, 2015).

⁵⁵ Philippine Statistics Authority, "Philippine population density increases from 255 to 338 persons per square kilometer," last modified September 1, 2016, <https://psa.gov.ph/content/philippine-population-density-based-2015-census-population>.

Figure 9. Populations of Provinces

NATIONAL URBAN DEVELOPMENT AND HOUSING FRAMEWORK
2017-2022

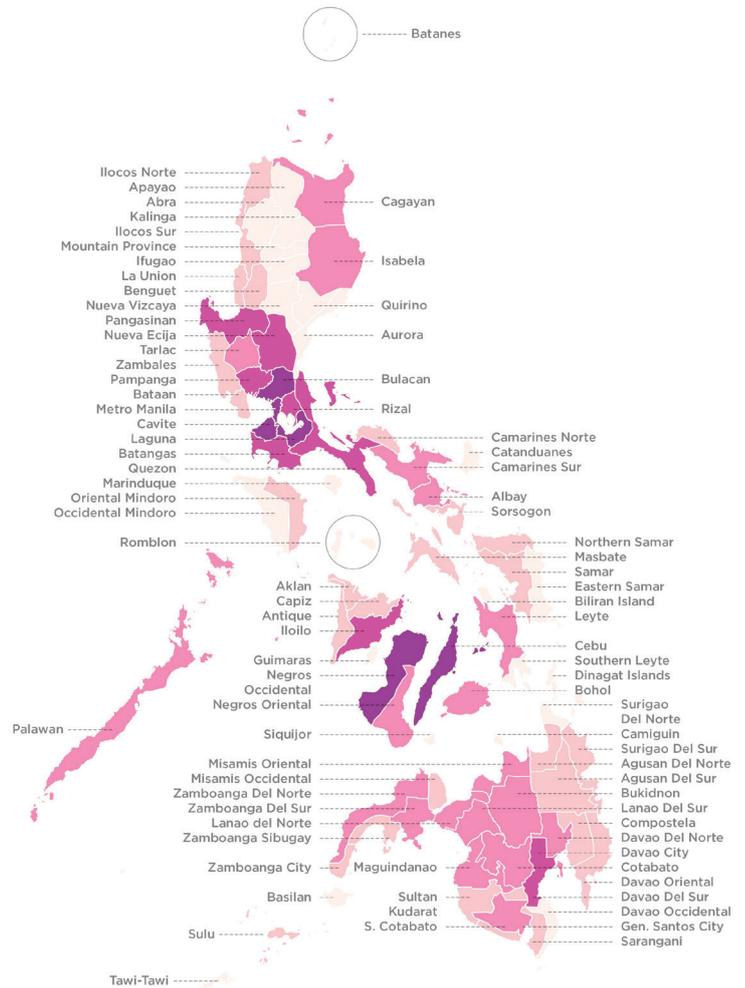
Populations of Provinces

Populations of Philippine provinces and Highly Urbanized Cities in 2015*

LEGEND



* According to the classification of the Philippine Statistics Authority (PSA) in the recently published Census of Population and Housing (2015).



DATA SOURCES

Philippine Statistics Authority (2015)
Philippine GIS Clearinghouse (philgis.org)
for administrative boundaries

CARTOGRAPHY

Created with support from United Nations
Human Settlements Programme (UN-Habitat).

Urban Population Growth and Urbanization Level

Of the 18 administrative regions in the Philippines, Region IV-A (CALABARZON) has the biggest population at 14.41 million persons. It is followed by the National Capital Region (NCR), with 12.88 million persons, and Region III (Central Luzon), with 11.22 million persons. The combined population of these three contiguous regions account for 38.1% of the Philippine population in 2015.⁵⁶

The urban primacy of Metro Manila is sustained; 12,877,253 persons reside in the NCR, which is classified as 100% urban.

Sixteen of the 20 most populous cities in the Philippines can be classified as small cities of 500,000 to 1 million residents. The census data show the emergence of secondary cities, where much of the urban growth has happened in the last 10 years.

⁵⁶ Philippine Statistics Authority, 2015 Census of Population (2015).

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The four biggest cities, Quezon City, Manila, Davao and Caloocan, are medium-sized cities with 1 million to 5 million inhabitants.

The combined population of these 20 biggest cities is 18,682,481 persons, or 18.5% of the total Philippine population as of 2015.

Table 10: Twenty Most Populous Cities, Philippines, 2015⁵⁷

Rank	Name	Region	Pop.	Rank	Name	Region	Pop.
1	Quezon City	National Capital Region	2,936,116	11	Parañaque	National Capital Region	665,822
2	Manila	National Capital Region	1,780,148	12	Dasmariñas	Calabarzon	659,019
3	Davao City	Davao Region	1,632,991	13	Valenzuela	National Capital Region	620,422
4	Caloocan	National Capital Region	1,583,978	14	Bacoor	Calabarzon	600,609
5	Cebu City	Central Visayas	922,611	15	General Santos	Soccsksargen	594,446
6	Zamboanga City	Zamboanga Peninsula	861,799	16	Las Piñas	National Capital Region	588,894
7	Taguig	National Capital Region	804,915	17	Makati	National Capital Region	582,602
8	Antipolo	Calabarzon	776,386	18	San Jose del Monte	Central Luzon	574,089
9	Pasig	National Capital Region	755,300	19	Bacolod	Negros Island Region	561,875
10	Cagayan de Oro	Northern Mindanao	675,950	20	Muntinlupa	National Capital Region	504,50

Urban areas in the Philippines have been growing faster than the rural areas since 2007. From 2007 to 2010, the population in urban areas grew at an average of 3.59% per year, while that of the rural areas declined at -0.33%. From 2010 to 2015, both urban and rural areas grew in population size, with urban areas increasing slightly faster at 1.82%, compared to the rural areas at 1.77%.

Urban population change is driven by natural increase, migration to urban areas, and reclassification of rural to urban areas. These factors need to be addressed in building a sustainable urban development framework.

⁵⁷ Ibid.

Figure 10. Highly Urbanized Cities

NATIONAL URBAN DEVELOPMENT AND HOUSING FRAMEWORK
2017-2022

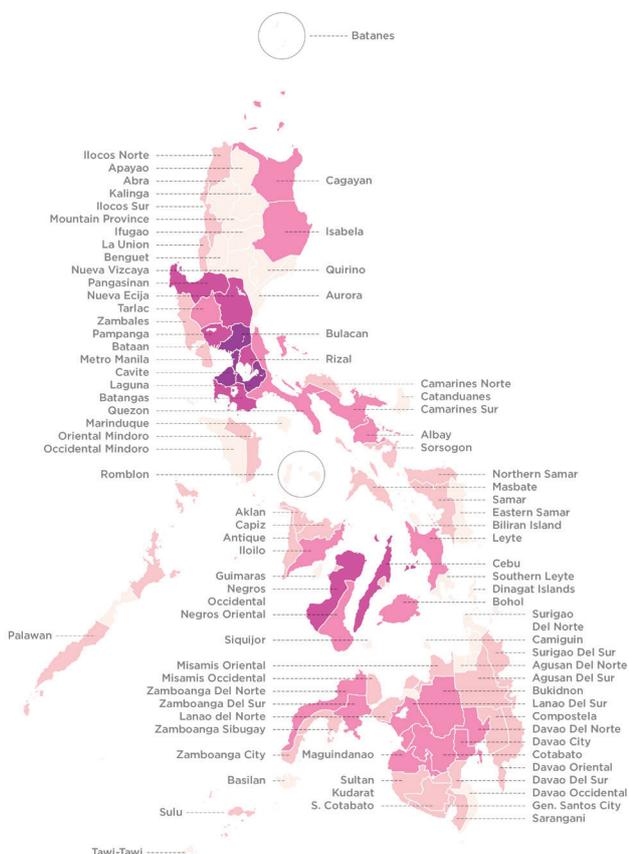
Populations of Provinces & Highly Urbanized Cities

Populations of Philippine provinces and Highly Urbanized Cities in 2015*

LEGEND



* According to the classification of the Philippine Statistics Authority (PSA) in the recently published Census of Population and Housing (2015). In the census, the populations of the HUCs are recorded separately from the adjacent provincial territory. In the map, the HUCs might be visible as slivers with different color values within provinces.



DATA SOURCES

Philippine Statistics Authority (2015)
Philippine GIS Clearinghouse (phtgis.org)
for administrative boundaries

CARTOGRAPHY

Created with support from United Nations
Human Settlements Programme (UN-Habitat).

Table 11: Urban-Rural Population Growth Rates, Philippines, 2007-2015⁵⁸

Census	Population			Population Change		Growth Rate		
	Year	Urban	Rural	Total	Urban	Rural	Urban	Rural
2000		36,756,881	39,747,196	76,504,077				
2007		37,579,591	50,984,862	88,564,453	822,710	11,237,666	0.32%	3.56%
2010		41,855,571	50,479,542	92,335,113	4,275,980	(505,320)	3.59%	-0.33%
2015		45,842,660	55,138,777	100,981,437	3,987,089	4,659,235	1.82%	1.77%

As of 2010, the Philippine urbanization level (measured as the proportion of the population living in urban areas⁵⁹) is estimated at 45.3% or 41.2 million out of the country's 92.3 million total population.⁶⁰ The Philippines' urbanization level is at 44.4%, according to UN Population Division estimates as of

⁵⁸ Various Censuses of Population, Philippine Statistics Authority.

⁵⁹ The Philippine Statistics Authority (http://nap.psa.gov.ph/pressreleases/2004/30Jan04_urban.asp) defines "urban areas" as those that fall under any the following categories:

- If a barangay has a population size of 5,000 or more, then a barangay is considered urban, or
- If a barangay has at least one establishment with a minimum of 100 employees, a barangay is considered urban, or
- If a barangay has 5 or more establishments with a minimum of 10 employees, and 5 or more facilities within the two-kilometer radius from the barangay hall, then a barangay is considered urban

This was a departure from the old definition that considered population density, street pattern, and presence of establishments and facilities for basic services. A review of the criteria revealed that some of these were no longer applicable. Population data after 2004 adhere to the new definition.

⁶⁰ UNESCAP estimated that around 66% of the country's 2010 population lived in urban areas.

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2015.⁶¹ The Asian Development Bank (ADB) had a higher estimate in 2014: 60.4% of the Philippine population are urban dwellers. According to the ADB, the urban population has been growing at a faster rate as people migrate from rural to urban areas in search of better employment opportunities.⁶²

Census data from 1970 to 2010 show that urbanization in the country has increased steadily. The change in the definition of an urban area in 2007 adjusted the urbanization level at 42.2%, but urbanization has advanced since then. By 2020, more than 70% of the country's estimated 108 million population will be urban, according to the UN Economic and Social Commission for Asia and the Pacific.⁶³

This corroborates the observation of a continuing urbanward movement of rural residents,⁶⁴ especially to large urban centers.

Young men and women have been moving from the periphery to the center in search of employment. As the national government jumpstarted decentralization by building industrial centers in the administrative regions of the country, the rural working age populations flocked to major urban centers within the region.

Urban areas and cities in the Philippines are centers of economic growth, accounting for 75% to 80% of the country's gross domestic product (GDP) since 2000. Metro Manila alone contributes nearly a third of total GDP. The services sector makes up over half of GDP. Services, trade, and communications are the fastest-growing subsectors in the urban areas.⁶⁵ Economic opportunities make cities and urban areas more attractive and desirable to the youth sector.

Table 12: Urbanization Levels, Philippines, 2007-2010

Censal Year	Total Population	Urban Population	Urbanization Level (Percent)
1970	36,684,486	11,677,820	31.8
1980	48,098,460	18,042,045	37.5
1990	60,697,994	28,500,544	47
2000	76,504,077	36,739,849	48
2007	88,564,453	37,579,591	42.4
2010	92,335,113	41,855,591	45.3

Source of Data: Philippine Statistics Authority (PSA) New definition

⁶¹ United Nations, World Urbanization Prospects – The 2014 Revision (New York, 2014).

⁶² Asian Development Bank, Philippine Urban Assessment (2014).

⁶³ Philippine Statistics Authority population projection 2010-2040 using 1.9 average growth rate (2000-2010).

⁶⁴ Rachel H. Racelis and Paula Monina G. Collado, "The Manila MUR: Continuing Magnet for Migrants," in Mega-Urban Regions in Asia and the Pacific, Urban Dynamics in a Global Era, ed. Gavin Jones and Mike Douglass (National University of Singapore Press, 2008).

⁶⁵ Asian Development Bank, Philippine Urban Assessment (2014).

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Population Projections

In the year 2045, the Philippine population is projected to increase to 142 million,⁶⁶ adding roughly 50 million persons between 2010 and 2045. The population will continue to increase even if the average annual growth rate is projected to decline from 1.7% for the period of 2010 to 2015 to 0.65% in 2040 to 2045.⁶⁷

The proportion of children aged 0 to 14 years, while still hefty, is projected to decrease. In 2010, one of three Filipinos were in this age group. By 2045, it is expected to go down to one in five persons. The absolute number of children in the same group is projected to decline from 31.3 million on 2010 to 30 million in 2045.

Moreover, the percentage of children under five years of age is estimated to decrease,

from 11.6% in 2010 to 6.7% in 2045, a 42% reduction in 35 years.

In the meantime, the working age population, or those aged 15 to 64 years, will expand from 62% in 2010 to 67.5% in 2045. Women in the childbearing ages of 15-49 years, who comprised 25.7% of the 2010 population, will account for 24.9% in 2045.

In 2010, the population aged 60 years and over comprised 6.7% of the total population. This older age group will increase to about a tenth of the total population in 2025 and to one-sixth in 2045. The proportion of those aged 65 and over is projected to increase from 4.3% in 2010 to 6.5% in 2025 and to 11.4% in 2045.

Table 13: Projected Population, by Age Group, Sex, and by Five-Calendar Year Interval, Philippines: 2010 - 2045 (Medium Assumption)⁶⁸

Age/Sex	2010	2015	2020	2025	2030	2035	2040	2045
Both Sexes								
0-4	10,767,800	11,327,300	11,475,800	11,360,700	11,043,800	10,622,300	10,119,600	9,523,800
5-9	10,355,000	10,671,000	11,233,600	11,385,600	11,273,500	10,957,600	10,536,100	10,032,000
10-14	10,212,600	10,283,900	10,601,800	11,162,300	11,312,500	11,197,900	10,878,500	10,452,700
15-19	9,736,800	10,136,900	10,208,500	10,524,400	11,081,200	11,226,900	11,107,500	10,783,000
20-24	8,435,900	9,643,400	10,045,400	10,117,800	10,431,700	10,984,500	11,126,500	11,002,600
25-29	7,447,800	8,332,500	9,540,100	9,944,300	10,017,200	10,329,300	10,878,000	11,015,900
30-34	6,794,800	7,342,000	8,229,200	9,435,800	9,841,200	9,915,000	10,225,000	10,770,500
35-39	6,033,400	6,685,300	7,238,600	8,127,400	9,333,700	9,741,900	9,819,000	10,129,900
40-44	5,489,400	5,916,400	6,573,800	7,133,600	8,024,400	9,231,100	9,645,000	9,727,500
45-49	4,695,800	5,351,200	5,787,300	6,449,500	7,015,500	7,909,000	9,115,500	9,536,800
50-54	3,907,500	4,530,000	5,185,800	5,630,000	6,295,500	6,868,200	7,762,300	8,967,600
55-59	2,996,800	3,703,100	4,319,200	4,970,900	5,421,200	6,087,100	6,665,000	7,557,100
60-64	2,235,700	2,765,500	3,444,600	4,045,700	4,685,300	5,138,100	5,798,700	6,378,200
65-69	1,502,400	1,978,400	2,472,300	3,109,600	3,684,300	4,301,200	4,750,400	5,396,600
70-74	1,146,200	1,249,200	1,667,600	2,110,400	2,686,400	3,217,800	3,795,000	4,230,200
75-79	709,400	870,200	966,600	1,313,000	1,688,800	2,183,300	2,652,700	3,170,100
80+	667,800	776,000	957,700	1,138,400	1,501,300	1,992,700	2,657,400	3,420,600
All ages	93,135,100	101,562,300	109,947,900	117,959,400	125,337,500	131,903,900	137,532,200	142,095,100

⁶⁶ The Philippine Statistics Authority, "A 142 Million Philippine Population by 2045?", last modified July 28, 2014, <https://psa.gov.ph/content/142-million-Philippine-population-2045>.

⁶⁷ Ibid.

⁶⁸ Philippine Statistics Authority, "Highlights of the 2010 Census-Based Population Projections," last modified August 9, 2016, <https://psa.gov.ph/content/highlights-2010-census-based-population-projections>.

4.2 THE URBAN SYSTEM IN THE NATURAL ENVIRONMENT

4.2.1 Global Environmental Change

In 1972, the first UN Conference on the Human Environment, also known as the Stockholm Conference highlighted the importance of the environment in the global agenda. It also introduced the international nature of environment and development. This was reinforced in the 1983 World Commission on Environment and Development, also known as the Brundtland Commission. The Commission defined sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”⁶⁹

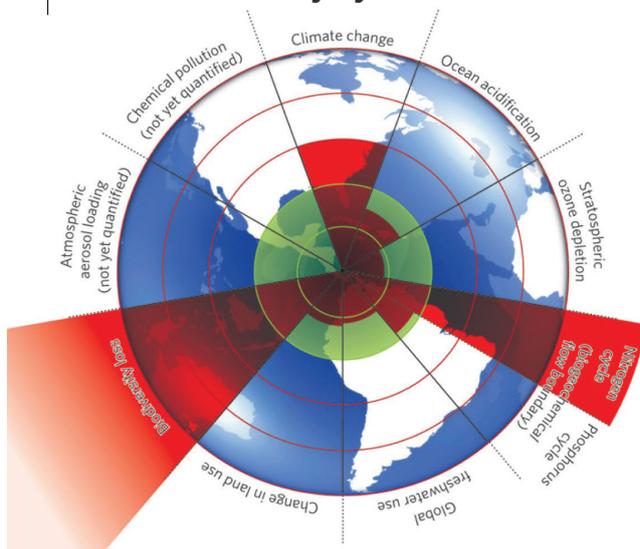
In 1992, the United Nations Conference on Environment and Development, also known as the Earth Summit or Rio Summit, launched landmark multilateral environmental agreements such as the UN Framework

Convention on Climate Change (UNFCCC), the UN Convention on Biological Diversity (CBD), and the UN Convention to Combat Desertification. Agenda 21, a blueprint for sustainable development, was adopted at the end of the Summit.

The Earth Summit brought together world leaders to discuss and to engage collectively in international efforts to promote environmental protection and sustainable development. Over the past decades, progress has been made to address global environment issues on land, water and air. Among the most recent achievements are the adoption in 2015 of the Sendai Framework for Disaster Risk Reduction and Management, the SDGs, and the Paris Agreement to the UNFCCC.

Nonetheless, global environmental challenges have increased and are expected to increase considerably in the succeeding decades under a business as usual (BAU) scenario. These challenges will be further exacerbated by socio-economic trends such as population growth, rising middle class and urbanization⁷⁰ which are the same trends faced by the country.

Figure 11. Proposed Safe Operating Space for Nine Planetary Systems⁷²



The green shade represents the proposed safe operating space for nine planetary systems. The red wedges represent an estimate of the current position for each variable.

Rockstrom, et al. (2009) identified and quantified nine interlinked planetary boundaries that must not be breached to ensure “a safe operating space for humanity.” Scientists argue that human activities have caused unacceptable environmental changes that could mean disastrous consequences for humanity. Figure 11 shows that the boundaries for biodiversity loss, climate change and nitrogen release have already been exceeded. Table 14 shows the parameters for measuring the boundaries and current status of these earth systems⁷¹

⁶⁹ Most frequently quoted definition from Our Common Future, also known as the Brundtland Report.

⁷⁰ Global Environment Facility (GEF) Secretariat, GEF 2020: Strategy for the GEF (2015).

⁷¹ Rockstrom, J. et al., “A safe operating space for humanity,” in Nature – International Journal of Science, no. 461 (2009): 472-475.

⁷² Ibid.

Table 14: Parameters to Measure Boundaries and Current Status of the Earth's Systems ⁷³

PLANETARY BOUNDARIES				
Earth-system process	Parameters	Proposed boundary	Current status	Pre-industrial value
Climate change	(i) Atmospheric carbon dioxide concentration (parts per million by volume)	350	387	280
	(ii) Change in radiative forcing (watts per metre squared)	1	1.5	0
Rate of biodiversity loss	Extinction rate (number of species per million species per year)	10	>100	0.1-1
Nitrogen cycle (part of a boundary with the phosphorus cycle)	Amount of N ₂ removed from the atmosphere for human use (millions of tonnes per year)	35	121	0
Phosphorus cycle (part of a boundary with the nitrogen cycle)	Quantity of P flowing into the oceans (millions of tonnes per year)	11	8.5-9.5	-1
Stratospheric ozone depletion	Concentration of ozone (Dobson unit)	276	283	290
Ocean acidification	Global mean saturation state of aragonite in surface sea water	2.75	2.90	3.44
Global freshwater use	Consumption of freshwater by humans (km ³ per year)	4,000	2,600	415
Change in land use	Percentage of global land cover converted to cropland	15	11.7	Low
Atmospheric aerosol loading	Overall particulate concentration in the atmosphere, on a regional basis	To be determined		
Chemical pollution	For example, amount emitted to, or concentration of persistent organic pollutants, plastics, endocrine disrupters, heavy metals and nuclear waste in, the global environment, or the effects on ecosystem and functioning of Earth system thereof	To be determined		

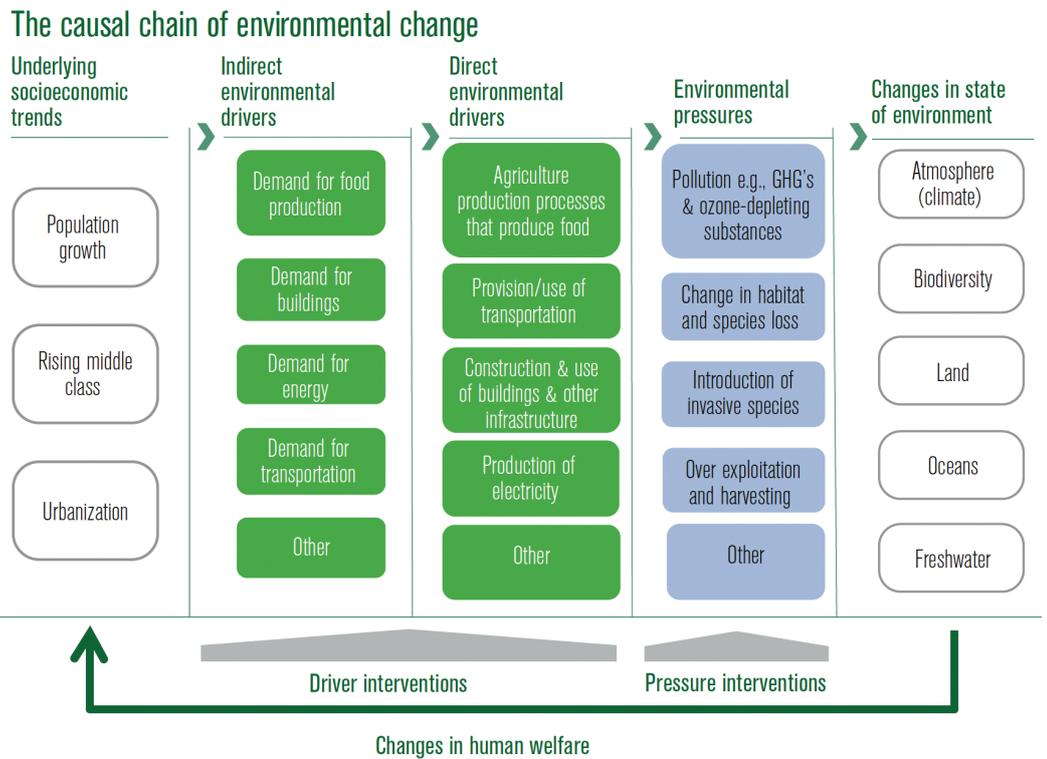
Boundaries for processes in red have been crossed. Data sources: ref. 10 and supplementary information

Under a BAU scenario compounded by underlying socio-economic trends mentioned above and indirect and direct drivers of environmental change, degradation is foreseeable, specifically in the environmental state of the atmosphere, biodiversity, land,

oceans, and freshwater (Figure 12). Such degradation will continue unless interventions are made at various stages in the causal chain. These interventions should particularly address upstream indirect drivers such as the demand for food production, buildings, energy, transportation, etc., which are high in urban areas.

⁷³ Ibid.

Figure 12. Causal Chain of Environmental Change⁷⁴



As a country situated in the tropics and in the Pacific Rim of Fire, the Philippines is endowed with highly diverse, unique, and valuable environment and natural resources that provide many ecosystems services benefiting its citizens. The complex and dynamic natures of ecosystems—mountain and forest, agriculture, inland wetlands, urban, coastal, and marine—require adaptive and integrated ecosystems management (IEM) approaches that can be carried out under existing national policy and legislative frameworks and programs, taking into consideration national and local contexts. These same services, however, are also threatened by man-made and natural hazards.

BOX 17: WHAT IS INTEGRATED ECOSYSTEMS MANAGEMENT (IEM)?

IEM is defined as “coordinated and governance-oriented planning, implementation, monitoring and evaluation in a selected ecosystem such as a watershed, sub-watershed, a legally or administratively defined protected area or watershed reservation, an ancestral domain covered by a Certificate of Ancestral Domain Title (CADT) or Certificate of Ancestral Domain Claim (CADC), a key biodiversity area (KBA) or an identified area within a KBA (such as the dominant location and distribution of vulnerable, irreplaceable, or trigger species), island or group of islands, or a political unit that coincides with unique ecological processes, for the purpose of reducing the overall threats to the sound, healthy, and sustainable functioning of ecological processes within an ecosystem.” Under an IEM approach, vertical (from ridge to reef) and horizontal (across sectors, political units, and institutions) integration are critical in meeting a common vision of sustainable development.

Description was jointly prepared by the EcoGov 2 Project and DENR-FASPO and reviewed by DENR technical bureaus, field staff, World Bank staff, among others.

⁷⁴ Global Environment Facility (GEF) Secretariat, GEF 2020: Strategy for the GEF (2015).

4.2.2 Urban Ecosystems

Urban ecosystems are the intersection and overlay of the natural environment, the built environment and the socio-economic environment.⁷⁵ They are dynamic and have similar interactions and behaviors as natural ecosystems, albeit affected by culture, personal behavior, politics, economics and social organization.

Ecosystems, within or outside of urban boundaries, provide ecosystem services.⁷⁶ These include moderation of the urban microclimate and improvement of air quality, opportunities for recreation, and improvement of health. Peri-urban ecosystems may help to moderate extreme climatic events such as flooding and enhance water quality and quantity via watersheds. Distant ecosystems may provide food, medicines, and timber.⁷⁷ These benefits help build resilience of human settlements.

Taken together and organized, urban ecosystems can take the form of functional areas, regions, or clusters. The most common functional areas in the Philippines are cities⁷⁸ and municipalities. These, along with metropolitan and megapolitan areas, provincial capital cities/municipalities, and inter-LGU clusters, are considered centers of consumption and production.

The Philippine Development Plan (PDP)⁷⁹ defines the country's network of settlements as follows:

- Metropolitan centers are economic centers of the three main island groups. They function as hubs for innovation and advanced services, culture and tourism, education and research, transportation and

trade, manufacturing, and technology. The PDP identifies three metropolitan centers:⁸⁰ Metro Manila, the National Capital Region and seat of national government; Metro Cebu, a central location in the Visayas and the second largest urban center with extensive domestic and international links; and Metro Davao, a major international gateway and Mindanao's center for commerce, education, health, and services. Cagayan de Oro is poised to become the fourth metropolitan center by 2025 based on its projected population and role as a major gateway, trans-shipment hub, and center for education.

- Regional Centers are regional markets and service centers for several provinces, with markets that are large enough to support a range of services and investments. Regional centers have the most direct linkages to metropolitan centers, and can serve as regional administrative centers, international gateways, and tourism hubs. Cities like Laoag, Batangas, Legazpi, Tacloban, Iloilo, General Santos, and Tagum are considered regional centers.

- Sub-regional Centers are large settlements that serve as market catchments of regional centers. They also connect to and serve as service centers of smaller provincial and local centers. As they grow, these sub-regional centers tend to merge with adjacent regional centers to form even larger metropolitan areas as those formed by the NCR, CALABARZON, and Central Luzon.

The rapid growth of cities also led to the creation of highly urbanized cities (HUCs), or those with at least 200,000 population.

⁷⁵ United Nations, Habitat III Issue Paper: Urban Ecosystems and Resource Management (2015).

⁷⁶ Benefits people obtain from ecosystems, delineated into four categories: supporting services (e.g. habitat for species and genetic resources); provisioning services (e.g. food and medical resources); regulating services (e.g. regulation of local climate and of extreme events); and cultural services (e.g. recreation and tourism).

⁷⁷ United Nations, Habitat III Issue Paper: Urban Ecosystems and Resource Management (2015).

⁷⁸ Further classified as highly urbanized, independent component, and component cities.

⁷⁹ <http://pdp.neda.gov.ph/wp-content/uploads/2017/01/Chapter-03.pdf>.

⁸⁰ Reduced from previously identified 12: Greater Metro Manila, Metro Batangas, Metro Angeles, Metro Olongapo, Metro Dagupan, Metro Bago, Metro Naga, Metro Naga, Metro Iloilo, Metro Cebu, Metro Bacolod, Metro Cagayan de Oro, and Metro Davao.

Figure 13. Hierarchy of Settlements

NATIONAL URBAN DEVELOPMENT AND HOUSING FRAMEWORK
2017-2022

Hierarchy of Settlements

According to populations of municipalities and cities in the Philippines in 2015*

LEGEND**

- Under 25,000
- 25,000 to 149,999 (minimum for municipality)
- 150,000 to 199,999 (minimum for city)
- 200,000 to 249,999 (minimum for HUC)
- 250,000 to 499,999 (minimum for province)
- 500,000 to 999,999
- 1,000,000 and above

* For the sake of comparison, the labelled towns are those with populations beyond 250,000, which is the minimum required by Republic Act 7160 (Local Government Code) for a province to be created. Please take note that while some of those towns are municipalities, they are home to large urban populations.

** Classification for minimum population sizes of Local Government Units (LGUs), according to Republic Act 7160, were used:

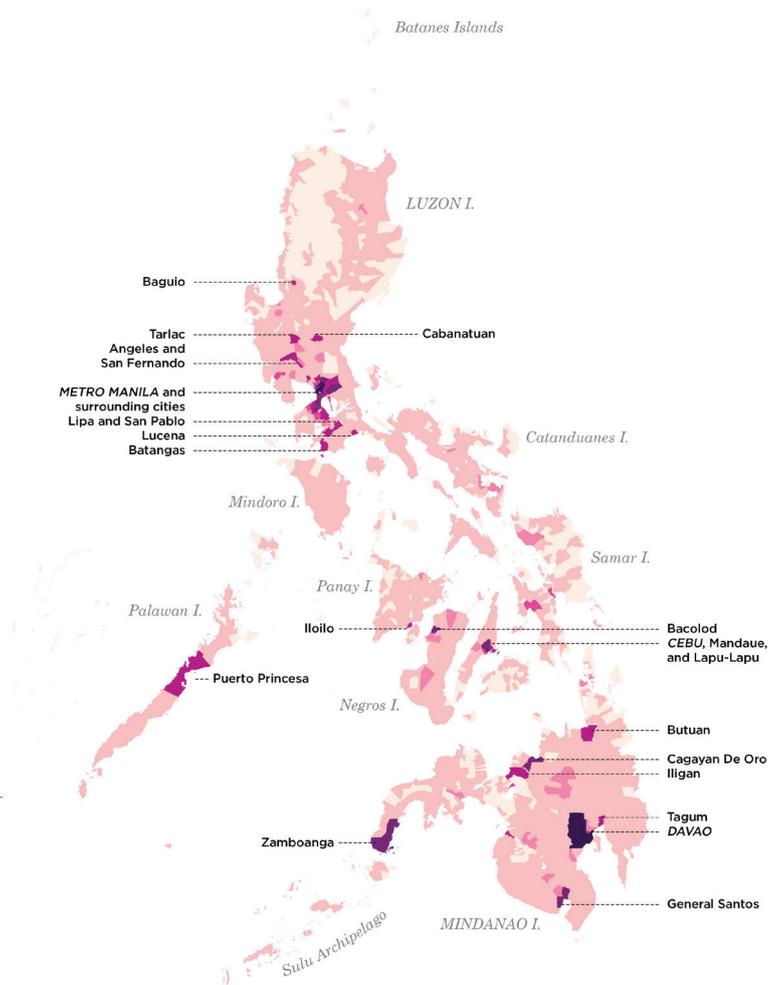
25,000 (municipality); 150,000 (city); 200,000 (highly-urbanized city); and 250,000 (province). The 500,000 and 1,000,000 markers are useful for comparison.

DATA SOURCES

Philippine Statistics Authority (2015)
DSWD DROMIC for administrative boundaries

CARTOGRAPHY

Created with support from United Nations
Human Settlements Programme (UN-Habitat).



The PDP also espouses the National Spatial Strategy (NSS), which “seeks to build on the efficiencies and maximize the benefits of scale and agglomeration economies.”

The NSS takes its cue from National Capital Region’s downward growth trend, the fast growth of regional centers, and their periphery. The government is positioning these areas to be large markets and labor force magnets. This calls to attention the need for better urban management of emerging cities and urban growth areas in the country.

4.2.3 Biocapacity and Ecological Footprint

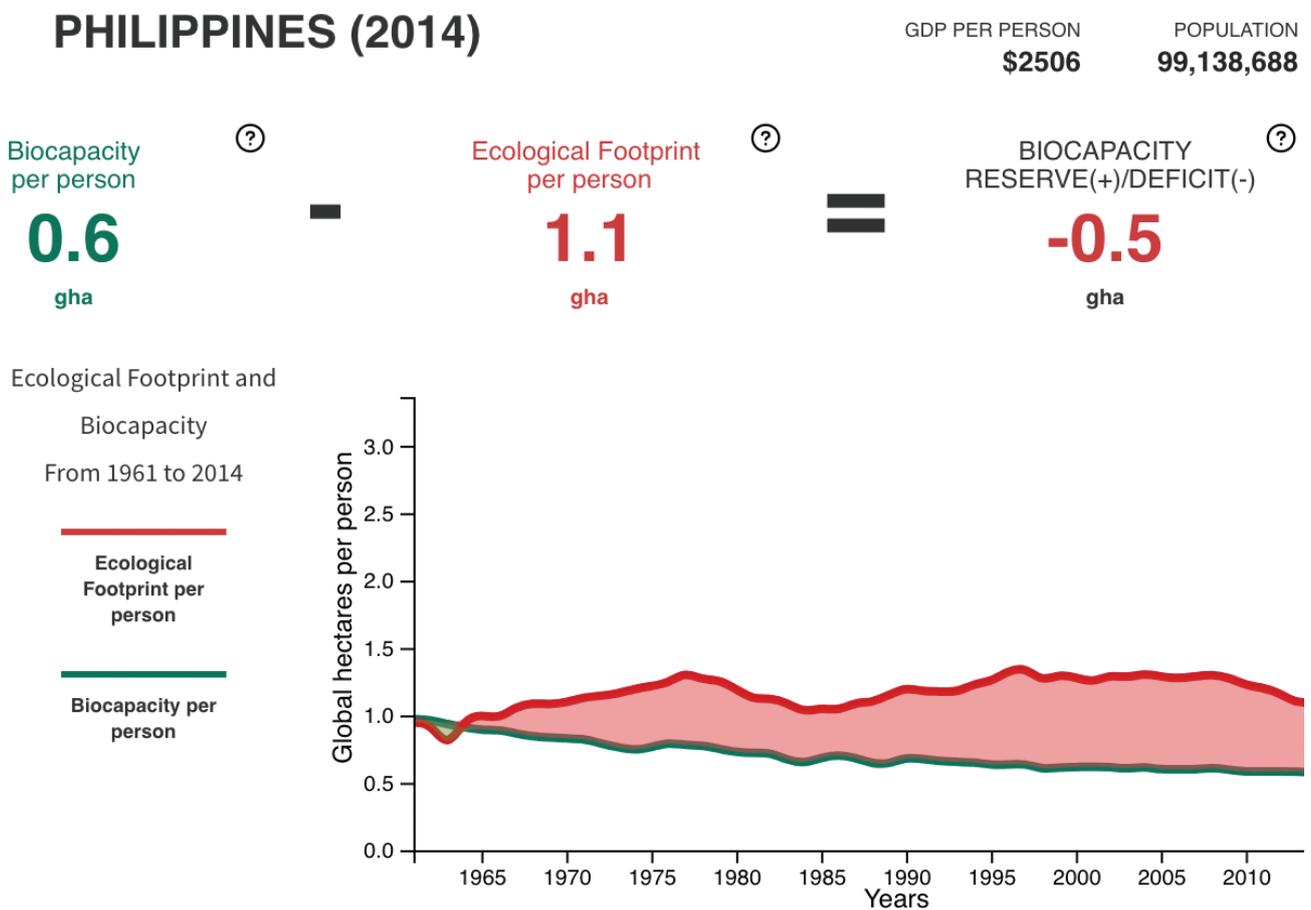
Sustainability implies that there are limits that nature imposes on human activity. This applies especially in the use and distribution of resources, an inevitable result of the creation and development of urban areas.

Sustainable urbanization requires that each urban area contributes to the enhancement of the biological capacity or biocapacity,⁸¹ which

is an area's ability to produce the food and fiber it needs. A system's ecological footprint, or the productive area required to provide the resources needed to satisfy consumption and capital demands, and to absorb its waste, is also a major consideration in sustainable development.

Figure 14 shows trends in biocapacity and ecological footprint. It indicates that the Philippines is experiencing a biocapacity deficit, wherein the footprint is in excess of the capacity. The productive area includes infrastructure.⁸²

Figure 14. Philippines' Ecological Footprint and Biocapacity, 1961 - 2014



Data Sources: [National Footprint Accounts 2018 edition \(Data Year 2014\)](#); building on World Development Indicators, The World Bank (2016); U.N. Food and Agriculture Organization.

⁸¹ An endowment of natural capital in the territorial habitat, which has a Biological Capacity or the biocapacity, with applications of human (endosomatic) and exosomatic energy and stocks of materials, to produce volumes of material biomass on a sustainable basis (i.e. while keeping its capacity intact) that are valuable directly and indirectly to meet the consumption and capital maintenance and new formation needs of human society.

⁸² Global Footprint Network, A Measure of Resilience: 2012 Report on the Ecological Footprint of the Philippines (California, 2012).

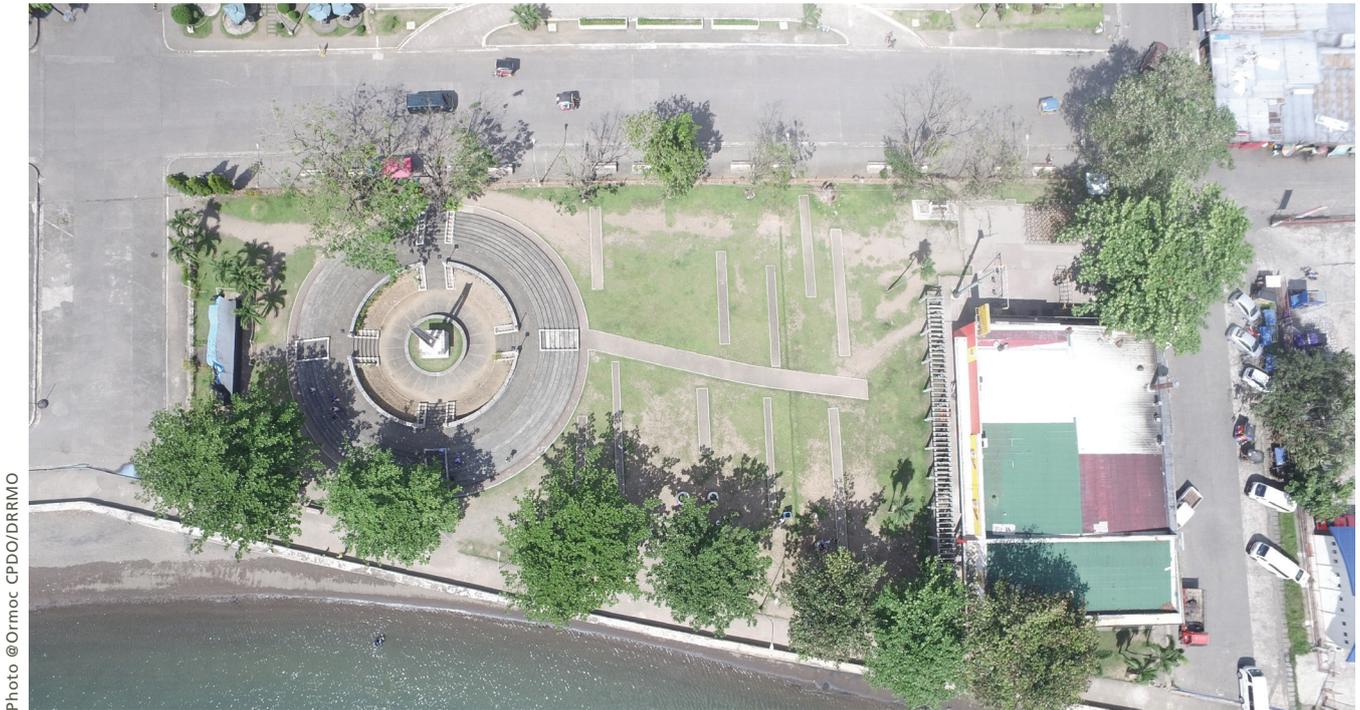


Photo @Ormoc CPDO/DRRMO

4.2.4 Land Use Change

Most Philippine cities and urban areas began along coastal areas. They were either Spanish or American colonial settlements of a finite size for efficient governance. After the war, with the building of roads and the affordability of suburban settlements, many inner city residents moved from the urban core to the newer suburbs. This caused many of these inner cities to fall into urban decay.

This can be observed in Metro Manila, with the rise of the suburbs of Makati, Quezon City, and Mandaluyong in the 1960s. In the 1980s, Metro Manila further expanded to northern Quezon City, Caloocan, Pasig, Parañaque, Las Piñas, and Alabang. This practice prevails today, wherein extensive peri-urban development is evident in many cities as a result of rapid urbanization. This uncontrolled expansion is called urban sprawl. Recent satellite images have shown that Metro Manila and Angeles could merge if left unchecked and agricultural land is lost to unmanaged urban development.

Smaller cities are experiencing urban sprawl, as agricultural land is rapidly being converted into residential developments. Greenfields are cheaper than brownfield sites and thus

preferred by developers. However, conversion of agricultural lands to residential and built-up areas permanently reduces biocapacity, and the development itself creates demand, causing further depletion of biocapacity.

Issues and Opportunities

There is a need to:

1. Address the consequences of human activity on the environment, particularly the role of urbanization and urban development in global environmental change.
2. Examine the network of urban ecosystems in the country and how they can develop in a sustainable manner, equally driving growth as well as reducing ecological footprint and preserving biocapacity.
3. Take advantage of spatial trends borne of economic growth. This must be done in order to spread the benefits of regional agglomeration. Spatial and economic strategies need to be aligned to ensure

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that smaller, outlying areas benefit from rapid urbanization of and innovation within nearby growth hubs. Infrastructure and urban services, shelter and settlements planning are pre-requisites of urban expansion and integration.

4. Demonstrate sustainability through the creative combination of the built and the unbuilt environment, or urban form. Urban form is not a passive outcome of development activities. It refers to the way future population and related activities are actively organized and distributed over the territory to ensure safe and sustainable environments for human habitation.⁸³

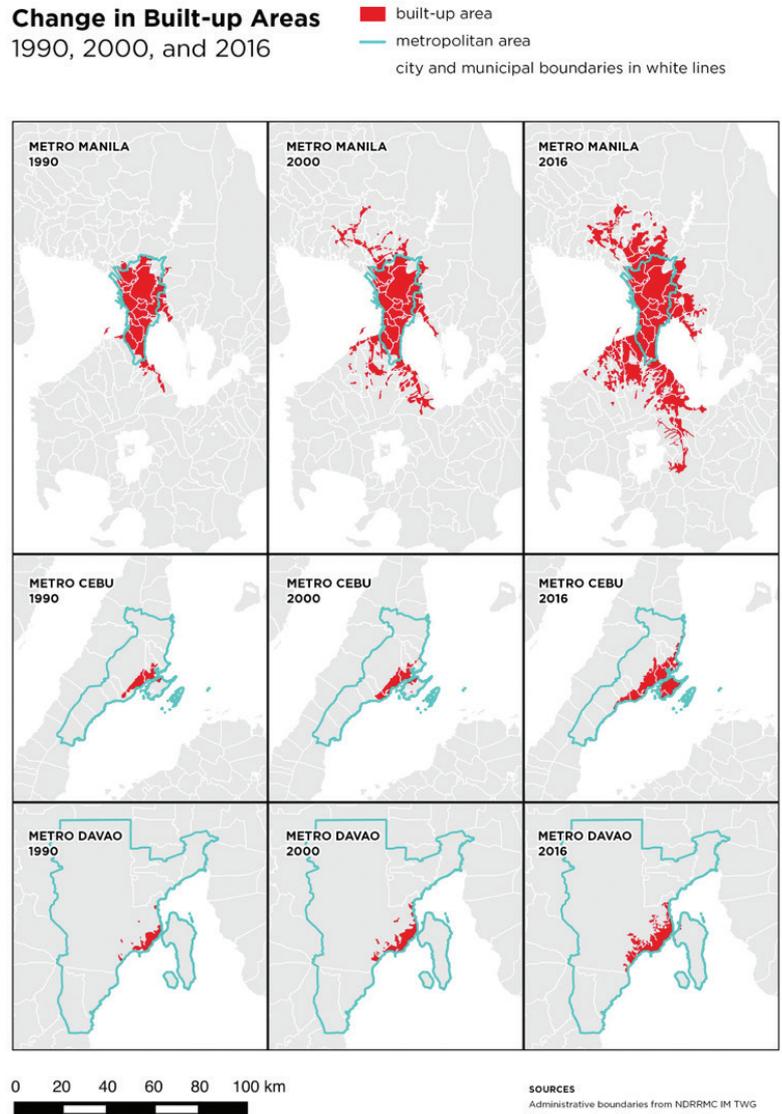
4.3 URBANIZATION, CLIMATE CHANGE AND RESILIENCE

4.3.1 Global and Philippine Climate Change Scenario

The Philippines is highly vulnerable to the impacts of climate change. It is ranked highest in the world in terms of vulnerability to tropical cyclones.⁸⁴ The Global Climate Risk Index of 2015 ranked the Philippines third among countries most affected by weather-related loss events (e.g. storms, floods, heat waves, etc.) in 2013, due to destruction brought about by Typhoon Haiyan. For the period from 1994 to 2013, the Philippines was the fifth most affected, with Honduras, Myanmar, Haiti, and Nicaragua ranking first to fourth.

Likewise, the Climate Change Vulnerability Index (CCVI) 2015 ranked the Philippines as the eighth most vulnerable country (categorized as “extreme” risk) in terms of impact of climate change. Figure 16 shows the CCVI 2015 issued by Maplecroft.⁸⁵

Figure 15. Change in Built-up Areas 1990, 2000, 2016



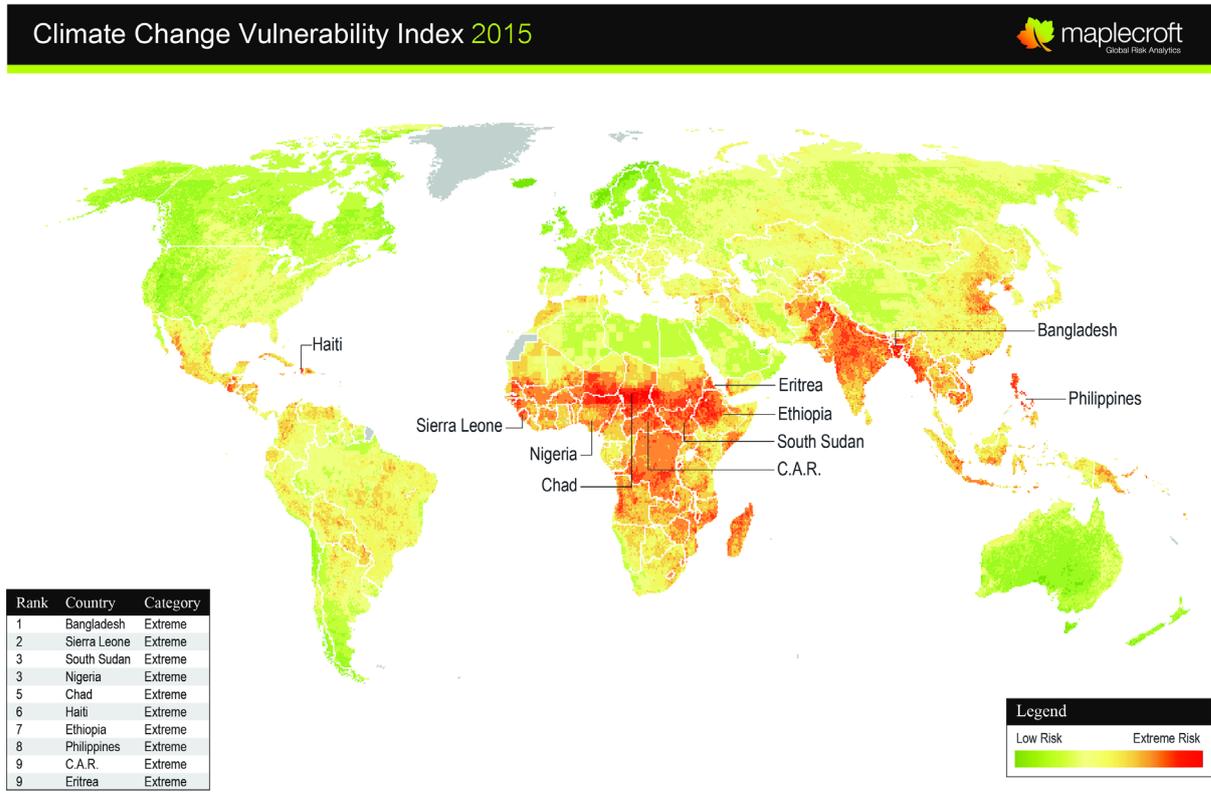
⁸³ Serote, Ernesto, Property, Patrimony & Territory: Foundations of Land Use Planning in the Philippines (Quezon City, 2004).

⁸⁴ Housing and Urban Development Coordinating Council, Developing a National Informal Settlements Upgrading Strategy for the Philippines (2014).

⁸⁵ “World: Climate Change Vulnerability Index 2015,” last modified October 29, 2014, <http://reliefweb.int/map/world/world-climate-change-vulnerability-index-2015>.

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Figure 16. Climate Change Vulnerability Index, 2015⁸⁷



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More recently, the Philippines had the highest sea level rise compared to global averages in the last 110 years. The Philippine sea level rise at 60 cm was three times the global average of 19 cm from 1901 to 2015 brought about by rising sea temperatures, according to a report by the World Meteorological Office (WMO) during the December 2015 UN Climate Change Conference of Parties 21 (CoP21) in Paris, France.⁸⁶ In the future, the Philippines, along with other countries in the Western Pacific, may experience more destructive typhoons, higher storm surges, and stronger wind speeds than predicted globally as a result of the fast rising ocean temperature.⁸⁷

⁸⁶ "PH sea levels: highest rise in the world", <http://kickerdaily.com/ph-sea-levels-the-highest-rise-in-the-world/>. Accessed 16 February 2016.

⁸⁷ The International Panel for Climate Change (IPCC) estimated that global sea level rise by the next century (2100) would be around 21' (6.4 m) as a result of melting of glacial ice surface from rising temperatures.



Photo ID 35118242 © Hrlumanog | Dreamstime.com

BOX 18: CLIMATE CHANGE IMPACTS

Climate change manifests in the form of rising temperature, variability of precipitation, increase and intensity of typhoons, and sea level rise. Along with these come the risks of more droughts, heat waves, floods and inundation, rain-induced landslides and subsidence, storm surges, increased wind speed, saline intrusion, coral bleaching, forest and grassland fires and more frequently recurring extreme weather events. All these have impacts on the economy, environment, and communities.

Continued emission of greenhouse gases will cause further warming and long-lasting changes in all components of the climate system, increasing the likelihood of severe, pervasive, and irreversible impacts for people and ecosystems. Limiting climate change would require substantial and sustained reductions in greenhouse gas emissions which, together with adaptation, can limit climate change risks.

The global projections of future climate patterns are largely based on computer-based models of the climate system. These models incorporate the important factors and processes of the atmosphere and the oceans, including the expected growth in greenhouse gases from socio-economic scenarios for the coming decades. The International Panel for Climate Change (IPCC) examined the published results from many different models. Based on the evidence, it is estimated that by 2100:⁸⁸

- The increase of global mean surface temperature by the end of the 21st century (2081–2100) relative to 1986–2005 is likely to be 0.3°C to 1.7°C under RCP 2.6, 1.1°C to 2.6°C under RCP 4.5, 1.4°C to 3.1°C under RCP 6.0 and 2.6°C to 4.8°C under RCP 8.5.
- It is virtually certain that there will be more frequent hot and fewer cold temperature extremes over most land areas, as global mean surface temperature increases. It is very likely that heat waves

⁸⁸ IPCC, Climate Change 2014: Synthesis Report (Geneva, 2014).

will occur with a higher frequency and longer duration.

- The sea level rise will likely be in the ranges of 0.26 to 0.55 m for RCP 2.6, and of 0.45 to 0.82 m for RCP 8.5 (medium confidence). By the end of the 21st century, it is very likely that sea level will rise in more than about 95% of the ocean area. About 70% of the coastlines worldwide are projected to experience a sea level change within $\pm 20\%$ of the global mean.
- The oceans will become more acidic.
- It is very likely that there will be more precipitation at higher latitudes and less precipitation in most subtropical land areas, while in many mid-latitude wet regions, mean precipitation will likely increase under the RCP 8.5 scenario.
- Extreme precipitation events over most of the mid-latitude land masses and over wet tropical regions will very likely become more intense and more frequent
- The global ocean will continue to warm during the 21st century, with the strongest warming projected for the surface in tropical and Northern Hemisphere subtropical regions.

In the Philippines, the annual mean temperature is expected to increase, ranging from 1.3°C-2.5°C (RCP 4.5) to 2.5°C-4.1°C (RCP 8.5) by the end of the 21st century. Meanwhile, seasonal mean rainfall is projected to exceed 40% of historical value. This means that the driest possible rainfall change under the RCP 8.5 could reach beyond 40% reduction in many areas, particularly in Mindanao, and the wettest possible change could exceed 40% increase in rainfall, particularly over Luzon, western section of Visayas, and some parts of Mindanao. Tropical cycles are also projected to increase in intensity, consistent with the trend. Lastly, Philippine sea level has risen by as much as 7 mm per year and is expected to continue rising. By the end of the century, sea level rise will be approximately 20 cm under RCP 8.5.⁸⁹

4.3.2 Climate Change Impact and Vulnerability: The Philippine Case

Changes in temperature, weather patterns, and sea level rise will have an impact on the country's natural and human resources.

Due to its geographic location, the Philippines is highly vulnerable to the impacts of climate change, while its metropolitan centers are increasingly vulnerable to the threats of

BOX 19: TROPICAL STORM ONDOY

Tropical Storm Ondoy (international name Ketsana) hit the Philippines on 26 September 2009, causing widespread flooding, especially in Metro Manila. Ondoy was quickly followed by typhoon Pepeng (international name Parma). Ondoy brought powerful winds with gusts of up to 230 kilometers per hour, followed by an extended period of heavy rains, with cumulative rainfall amounts exceeding 1,000 millimeters in some areas. Ondoy and Pepeng resulted in large numbers of affected persons and casualties. Nearly 4.9 million families nationwide were affected, of which 56%, or 1.4 million persons, lived in Metro Manila.* Three years later, in August 2012, Metro Manila was engulfed in floodwaters as monsoon rains swelled rivers and creeks and overwhelmed drainage canals already clogged from indiscriminate trash and debris disposal.

Source: World Bank, "Executive Summary," in Philippines—Typhoons Ondoy and Pepeng: Post-Disaster Needs Assessment I, (Washington D.C., 2011), <http://documents.worldbank.org/curated/en/2011/01/15115760/Philippines-typhoons-ondoy-pepeng-post-disaster-needs-assessment-vol-1-3-executive-summary>.

⁸⁹ PAGASA, Observed Climate Trends and Projected Climate Change in the Philippines (Philippines, 2018).

⁹⁰ United Nations, Department of Economic and Social Affairs, Population Division. World Urbanization Prospects: The 2011 Revision (New York, 2012).

natural disasters. Aside from its effects on communities and the economy, climate change will exacerbate the degradation of the natural resources base due to overuse, inadequate livelihood opportunities in resource-dependent communities, urban settlements built along the coast, and high population densities in coastal towns exposed to natural disasters.

Metro Manila, for instance, with its dense and rapidly growing population of 12.88 million inhabitants, has a high exposure to tropical storms, floods, and earthquakes. The metropolis sits on a floodplain of three rivers: Marikina, Napindan and Pasig rivers, making its residents vulnerable to flooding.⁹²

In urban areas, permanent structures have been built on the river easements, and settlements have spread in floodplains, mangrove areas, waterways, and geologically unstable areas such as sandbars and river islets. In many cases, built-up areas in river and coastal floodplains would not have posed a problem had there been an effective city drainage system. That is not the case for many cities. Creeks are often built over to pave the way for residential and commercial projects. The demands of rapid urbanization and economic surge were met with indiscriminate construction of structures over waterways. Storm water had to find its way to the bay or sea through residential areas, sometimes flooding them.

Natural disasters put human lives at severe risk. The World Bank estimated that around 10,000 people were killed due to Typhoons Yolanda, Ondoy, Pepeng, and Sendong.⁹¹ Climate-related disaster is a “fundamental threat” to the country, affecting the poor more than any other group.⁹² These disasters may even push those who are previously not poor into poverty.⁹³

Climate change and natural disasters will also impact climate-sensitive sectors of the Philippine economy, especially agriculture, fisheries, and water resource management. Any increase in temperature, along with changes in precipitation patterns and hydrological regimes, will heighten the country’s existing vulnerabilities and cut short economic growth if no action is done.

From 1990 to 2008, the annual direct damage cost of natural disasters in the Philippines from varied between 0.7% and 1% of GDP.⁹⁴ In 2011, the Philippine economy lost PHP 59.2 billion due to typhoons, floods and landslides, according to NEDA estimates. Meanwhile, the World Bank estimated that the country suffered at least USD 18.6 billion or PHP 799 billion in economic damage and other losses due to climate-related disasters over the period from 2009 to 2014.⁹⁵ The country’s economy is susceptible to climate change impacts; 85% of the country’s GDP is sourced from areas exposed to climate change risks.⁹⁶

Climate change-induced economic losses are particularly high in urban and peri-urban areas. This is largely because of the increasing fragility of urban ecosystems and the low adaptive capacity of communities. As the growth in urban population continues and urban densities increase, so will the climate and disaster risks and vulnerabilities to high-risk urban communities and vulnerable groups, especially among informal settlers and urban poor.

4.3.3 Contributions of Cities and Urban Areas to Climate Change and Disaster Risks

The Philippines was ranked 39th in the world in 2005 in terms of overall greenhouse gas (GHG) emissions, with about 142 million tons of carbon dioxide equivalent (MtCO₂e), excluding

⁹¹ World Bank, “Climate Change, A Fundamental Threat to Development” (2014).

⁹² Ibid.

⁹³ Ibid.

⁹⁴ Asian Development Bank, Country Partnership Strategy: Philippines (2011–2016) (Manila, 2011), <https://www.adb.org/documents/Philippines-country-partnership-strategy-2011-2016>.

⁹⁵ PhilStar Global, “WB: Climate change cost PHL US\$ 18.6 billion” (2014).

⁹⁶ Climate Change Commission and Global Green Growth Initiative, Project Proposal for Ecotown Scale-up (Phase 2): Climate Resilient Green Growth Planning at the Provincial Level, (2015): p.2.

⁹⁷ World Bank, A Strategic Approach to Climate Change in the Philippines (Washington D.C., 2010).

emissions due to land use change.⁹⁷ The power and transport sectors account for 36% and 32% of total energy carbon dioxide emissions, respectively. GHG emission reduction priorities should be in these sectors, based on the trend in emission growth, policy conditions affecting primary energy supply and demand, and estimated abatement costs.

The transport sector, which includes 3.5 million registered motorcycles and tricycles, releases 10 million tons of carbon dioxide and consumes close to \$3 billion worth of fuel per year. The introduction of new transport technologies, such as e-jeepneys, is an option to mitigate transport emissions.⁹⁸

Issues and Opportunities

1. The economic, social, and physical impact of climate-related impacts and disasters to the country, our people and local communities, especially the poor, are devastating.
2. For the country to survive, it needs to develop ecologically stable and resilient communities.⁹⁹ Enhancing the climate resilience of the economy and the adaptive capacity of the populations is crucial for sustainable development.
3. Urban development must actively support efforts to increase the adaptive capacity of communities. Cities and municipalities need to exhibit within the built environment actions intended to reduce vulnerability and arrest climate change-induced losses.

4.4 INEFFICIENCIES OF INFRASTRUCTURE AND BASIC SERVICES

For a system to thrive, it must be structured so as to establish functional links and facilities that enhance its productivity and biocapacity. It must also be responsive to climate change policies. Philippine urban development has been marked with gaps within this system, which need to be addressed with urgency and clarity.

4.4.1 Water, Sanitation, Hygiene (WASH)

The government's monitoring data indicate that:

- Only 36% of the country's river systems are classified as sources of public water supply.
- 58% of groundwater sampled is contaminated with coliform and needs treatment.
- 31% of illness monitored for a five-year period were caused by waterborne sources.
- Many areas experience water supply shortage during the dry season.
- Urban water coverage decreased from 95% in 1990 to 87% in 2004.¹⁰⁰

Access to a household water service connection is also limited. Based on data uploaded by water utilities in 1,445 participating cities and municipalities out of

The introduction of new transport technologies, such as e-jeepneys, is an option to mitigate transport emissions.

⁹⁸ Asian Development Bank, Republic of the Philippines National Urban Assessment (2014).

⁹⁹ Alexis Lapiz, "Communities of Resilience: Convergence Initiative," PowerPoint presentation, Communities of Resilience: Convergence Forum for Tagum-Libuganon River Basin, March 10-11, 2016.

¹⁰⁰ United Nations, Habitat III: The Philippines National Report (2016): p.46.

a total 1,634 local government units, there are: 4,719 Level III systems, 5,079 Level II systems¹⁰¹, and 13,044 Level I systems.¹⁰² The Autonomous Region in Muslim Mindanao (ARMM) has the least number of Level III systems¹⁰³ at 18. Also, LGU-run water utilities have the most number of water service management providers in the Philippines.¹⁰⁴

The assessment of the current water and sanitation situation in the Philippines is limited due to inadequate data. The Philippines, however, has already achieved 92% coverage for drinking water, as targeted by The Millennium Development Goals (MDGs), according to a report by the ADB.¹⁰⁵ Also, the report highlighted a wide disparity in access between urban and rural areas: 61% in urban areas compared to only 25% in rural areas.¹⁰⁶

In terms of sanitation, only 5% of households are connected to a sewerage network, according to most estimates. Problems include:

- lack of policies and effective governance and regulation;
- low levels of awareness and political will for improving sanitation;
- inadequate funds for financing infrastructure; and
- lack of sanitation capacity.¹⁰⁷

Increasing urbanization may further strain the inadequate water and sanitation infrastructure, and lead to a spread of preventable waterborne and sanitation-related diseases.



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4.4.2 Energy

The Philippines aims for a 70% reduction in greenhouse gas (GHG, CO₂e) emissions by 2030, relative to its BAU scenario from 2000 to 2030. Reduction of emissions will come from energy, transport, waste, forestry and industry sectors.¹⁰⁸ Mitigating these emissions would tap the potential for sustainable and renewable energy (RE) resources in the country that is underutilized and undervalued. Fortunately, the country has diverse RE resources from hydropower, geothermal, biomass, solar, wind, and ocean.

The following legislation and policies support the utilization of such resources:

¹⁰¹ Stand-alone water points (e.g., hand pumps, shallow wells, rainwater collectors).

¹⁰² Piped water with a communal water points (e.g. bore wells, spring systems).

¹⁰³ Piped water supply with a private water point (e.g., a household service connection).

¹⁰⁴ Government of the Philippines, National Water Survey, accessed May 22, 2016, <http://listahangtubig.cloudapp.net/>.

¹⁰⁵ The WHO–UNICEF JMP for Water Supply and Sanitation is the official United Nations mechanism tasked with monitoring progress toward achieving Millennium Development Goal (MDG) 7, or halving the proportion of the population without access to water and basic sanitation. WHO/UNICEF JMP, accessed May 2016, <http://www.wssinfo.org/>.

¹⁰⁶ Asian Development Bank, Philippines: Water Supply and Sanitation Sector Assessment, Strategy, and Road Map, (Mandaluyong City, 2013).

¹⁰⁷ Government of the Philippines, Philippine Sustainable Sanitation Roadmap (Manila, 2007); and Government of the Philippines, Philippine Sustainable Sanitation Plan (Manila, 2010).

¹⁰⁸ Government of the Philippines, “Intended Nationally Determined Contributions,” communicated to the United Nations Framework Convention on Climate Change in October 2015.

- R.A. 7156: An Act Granting Incentives to Mini-Hydro-Electric Power Developers and for Other Purposes
- Rules and Regulations Implementing R.A. 7156
- E.O. 462: Enabling Private Sector Participation in the Exploration, Development, Utilization and Commercialization of Ocean, Solar and Wind Resources for Power Generation and other Energy Uses
- Department Circular No. 98-03-005: Rules and Regulations Implementing E.O. 462
- E.O. 232: Amending E.O. 462, Series of 1997, Enabling Private Sector Participation in the Exploration, Development, Utilization and Commercialization of Ocean, Solar and Wind Resources for Power Generation and other Energy Uses
- R.A. 9003: Ecological Solid Waste Management Act of 2000
- R.A. 9367: Biofuels Act of 2006
- R.A. 9513: Renewable Energy Act of 2008
- R.A. 10771: Philippine Green Jobs Act of 2016

4.4.3 Drainage

The country's drainage system typically carries both storm water and waste water, and discharges these into rivers, creeks, or other open bodies of water.

Drainage systems are either concrete lined or open earth canals. Although new townships, subdivisions, and planned unit developments invest heavily on drainage infrastructure, these are not enough to augment the needs

of sprawling settlements, and more recently the effects of climate change, including stronger and increased rainfall. Service coverage expansions in the past 30 years have been overtaken by rapid urbanization and population growth, with increased deterioration and degradation of receiving waters.¹⁰⁹ Although some subdivisions have good drainage systems, outflows towards the main drainage systems do not have proper linkages.

Worse, some residential and commercial developments actually cover natural drainage ways like rivers and creeks. Informal settlements that restrict the flow of water in river systems also add to the inefficiency and lack of sewerage and drainage systems in urban areas. This exposes informal settler families (ISFs) to high risk of flooding, pollution, and environmental illnesses.

4.4.4 Waste Management

Improper solid waste disposal as a pervasive urban problem is being addressed through the Ecological Solid Waste Management Act of 2000 (R.A. 9003). This law mandates the nationwide adoption of a systematic, comprehensive and ecological solid waste management program, and compels all local governments to install infrastructure and facilities that will promote solid waste reduction, reuse, and recycling.¹¹⁰ Due to its enactment, most cities in Metro Manila developed their own solid waste management systems, while sharing the use and management of sanitary landfills in San Mateo, Rizal Province, and Payatas, Quezon City.¹¹¹

R.A. 9003 has not been fully implemented—local governments continue to encounter barriers to implementing and managing material recovery facilities and installing sanitary landfills.¹¹² Merely finding locations for these facilities is difficult with limited space

¹⁰⁹ Department of Health, Sustainable Sanitation Road Map (2010).

¹¹⁰ Republic Act No. 9003 (2000).

¹¹¹ UN-Habitat, Habitat III: The Philippines National Report (2016).

¹¹² UN-Habitat, Habitat III: The Philippines National Report (2015).

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Photo © UN-Habitat

in urban areas, and developing and managing them is financially and technically challenging. The law also fails to address toxic wastes from residential areas.

Meanwhile, untreated domestic and industrial water waste pollute and contaminate rivers and waterways, and have made urban communities, particularly those in the metropolitan areas, highly prone to diarrhea, cholera, skin diseases, and other waterborne diseases. Ground water pollution has caused environmental illnesses that put highly vulnerable populations at risk, especially those who live near or above waterways.

In the National Capital Region, the Metropolitan Waterworks and Sewerage System through its two concessionaires established investment plans for sewerage and wastewater treatment. But outside the

National Capital Region, only a few cities have sewerage systems, that serve less than 3% to 5% of the service area population. Nationwide, less than 5% of households are connected to a sewerage system. “Domestic wastewater largely goes untreated into groundwater or public canals and drainage systems, and eventually into rivers and other water bodies, thus exposing the majority of the population to raw sewage.”¹¹³

It is not surprising that up to 58% of groundwater for drinking is contaminated with coliform bacteria.¹¹⁴ Data from the Environmental Management Bureau of the Philippines shows that out of the 127 freshwater bodies sampled, only 47% were found to have good water quality. On the other hand, 40% had fair water quality, while 13% showed poor water quality.¹¹⁵

UNTREATED DOMESTIC AND INDUSTRIAL WATER waste pollute and contaminate rivers and waterways, and have made urban communities, particularly those in the metropolitan areas, highly prone to diarrhea, cholera, skin diseases, and other waterborne diseases.

¹¹³ Asian Development Bank, Philippines: Water Supply and Sanitation Sector Assessment, Strategy, and Road Map,. (Mandaluyong City, 2013).

¹¹⁴ World Bank, Philippines Environmental Monitor (Manila, 2007).

¹¹⁵ Greenpeace, The State of Water in the Philippines (Manila, 2007).

4.4.5 Information and Communications Technology

Information and communications technology (ICT) is important to many aspects of the Philippine urban system. It is necessary in government's discharge of regular functions. Its stability, or lack thereof, drives the growth of the business process outsourcing industry, and other private enterprises. Overseas Filipino workers rely on ICT to communicate with their families and send remittances.

In a study by Statista, Internet penetration rate in the Philippines is at 44%. In 2016, 29.9 million people were estimated to own smartphones that access the Internet through data services. This number is expected to increase to 39.2 million by 2019.

While the sector shows a lot of potential growth and development, it is beset by dropped calls, slow Internet speeds and intermittent disconnections. Privatization has improved service over the years, yet the Philippines has the second slowest average download speed at 3.64 Megabits per second (Mbps), outranking only Afghanistan in a study of consumer Internet speeds of 22 Asian countries in May 2015. Aside from being one of the slowest, it is also the most expensive at USD 18.19 per Mbps, placing it at 161st out of 202 countries globally.¹¹⁶

In legislative hearings and National Telecommunications Commission investigations, Internet service providers and telecommunication corporations attributed this poor service to geography. The Philippines' being an archipelago implies high private investment costs for constructing new broadband towers or adding fiber optic cables undersea.

4.4.6 Inter- and Intra-System linkages

4.4.6.1 Transportation challenges in Philippine urban centers

Inadequate and ineffective transportation planning in urban areas have led to congestion, high incidence of road traffic-related accidents, negative environmental impacts, energy use, loss of public space, and urban sprawl. Traffic has become a major issue of Philippine cities and municipalities, particularly Metro Manila and secondary metro regions such as Metro Cebu and Metro Angeles. Without intervention, traffic may cost the economy PHP 6 billion a day, traffic demand will increase by 13% by 2030, and transport costs may increase.¹¹⁷

Most urban centers experience congestion on major thoroughfares. Although location dependent, congestion can be attributed to several causes:

- inefficient and inadequate public transport system, with limited service coverage areas;
- slow transportation infrastructure development due to underinvestment and lack of proper maintenance;
- urban sprawl and inaccessible land use, increasing the need for private vehicle trips;
- prevalence of on-street parking, thereby reducing road capacity;
- traffic signals that are outdated and do not meet the needs anymore; and
- traffic signs that do not conform to standards and are placed inappropriately.¹¹⁸

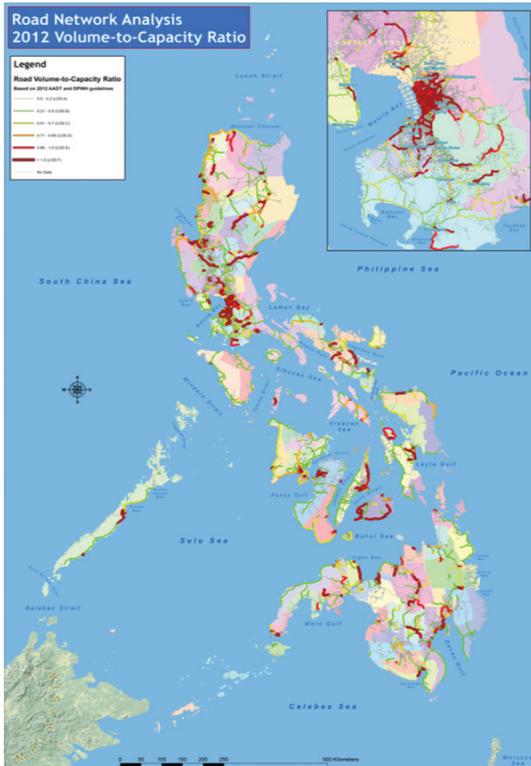
Another challenge to urban transportation is the high incidence of road traffic-related accidents. This is mostly attributed to poor

¹¹⁶ GMA News Online, "LIST: Philippines ranks 21st of 22 Asian countries in Internet download speed," last modified May 19, 2015, <http://www.gmanetwork.com/news/story/489762/scitech/technology/list-Philippines-ranks-21st-of-22-asian-countries-in-internet-download-speed#sthash.RpmCguGh.dpuf>.

¹¹⁷ Japan International Cooperation Agency, Transport Infrastructure Development for Metro Manila and its Surrounding Areas.

¹¹⁸ Government of the Philippines, Philippine Transport Infrastructure Development Framework Plan (2014).

Figure 17. Congestion on Major Roads



infrastructure and the use of indigenous/illegal modes of transportation such as *habal-habal* (motorcycle taxi), particularly in areas where availability of transport is limited due to inaccessible land uses.

Due to increasing motorization, air pollutant emissions from mobile sources has become a serious concern for the environment. Transport accounts for 69% of total air pollutants.¹¹⁹ Tricycles, jeepneys, and buses contribute a large portion of carbon dioxide emissions. It is estimated that about 10 million tons of carbon emissions come from registered motorcycles and tricycles. Moreover, according to the ADB Country Operations Business Report of 2014, transport consumes

about 70% of the total imported fuel, with road transport accounting for about 80% of the demand.¹²⁰

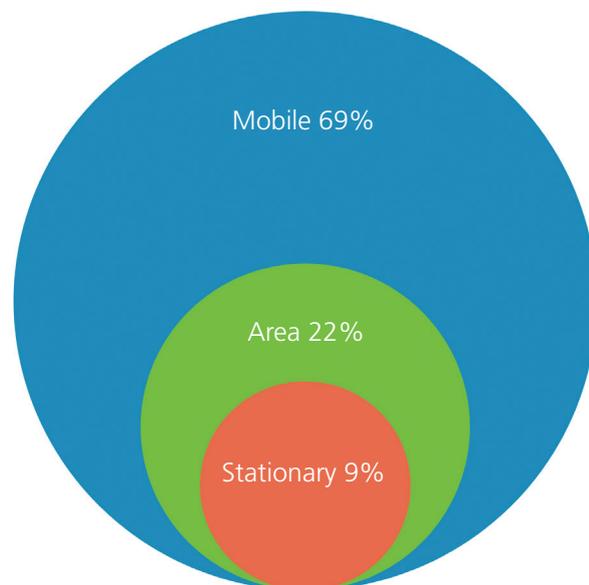
Increase in traffic volume has necessitated the acquisition of more space for transportation infrastructure. Acquisition of right-of-way for road projects has been the subject of debates on how to balance protection of the natural environment with progress. More traffic encourages less social interactions and less street activities. People tend to walk and cycle less when traffic is high.

Due to increasing population in the urban areas and the inadequate housing choices in cities, urban sprawl has become prevalent. This phenomenon increases the need for mobility and consequently increases the rate of motorization.

4.4.6.2 Inter-city linkages

The development of cities requires inter-connectivity between rural and urban areas, enabling movement and access to goods and services.

Figure 18. Nationwide 2012 Emissions Inventory



¹¹⁹ Environmental Management Bureau of the Department of Environment and Natural Resources, Emissions Inventory (2012).

¹²⁰ Ibid.

BOX 20. ROADS IN THE PHILIPPINES

Roads in the Philippines are usually classified according to the government entities administering them. They are classified as national roads, provincial roads, city roads, municipal roads, and barangay roads. National roads are either primary or secondary. Primary roads, also known as arterial roads, are continuous roads that form part of the main trunk system leading to either primary centers such as major cities and airports or all roads connecting to the primary centers.

Roads

Roads are the most dominant transportation infrastructure, linking cities in the Philippines. They carry 98% of passengers and 58% of cargo traffic.

Based on 2012 data from the Department of Public Works and Highways (DPWH), local roads (i.e., provincial, city, municipal, and barangay) dominate the national network.

In 2014, DPWH reported that 29,160 km (93.34% of total length) of national roads have been paved, projected to improve travel time and reduce vehicle operating costs of users. Moreover, the total length of expressways linking key growth centers has increased from 280 km in 2010 to 385 km in 2014.

Table 15: Philippine Road Network¹²¹

Road Classification	Total Length (km)	% of total road network
National Roads	31,597.68	14.69%
- National Primary	16,056.47	7.47%
- National Secondary	15,541.21	7.23%
Provincial Roads	31,233.23	14.52%
City Roads	14,739.39	6.85%
Municipal Roads	15,816	7.35%
Barangay Roads	121,702	56.58%
TOTAL	215,088.29	100%

The Department of Public Works and Highways reported that 29,160 km of national roads have been paved, projected to improve travel time and reduce vehicle operating costs of users

¹²¹ Department of Public Works and Highways, 2012.

Figure 19. Network of Roads and Ports ¹²²

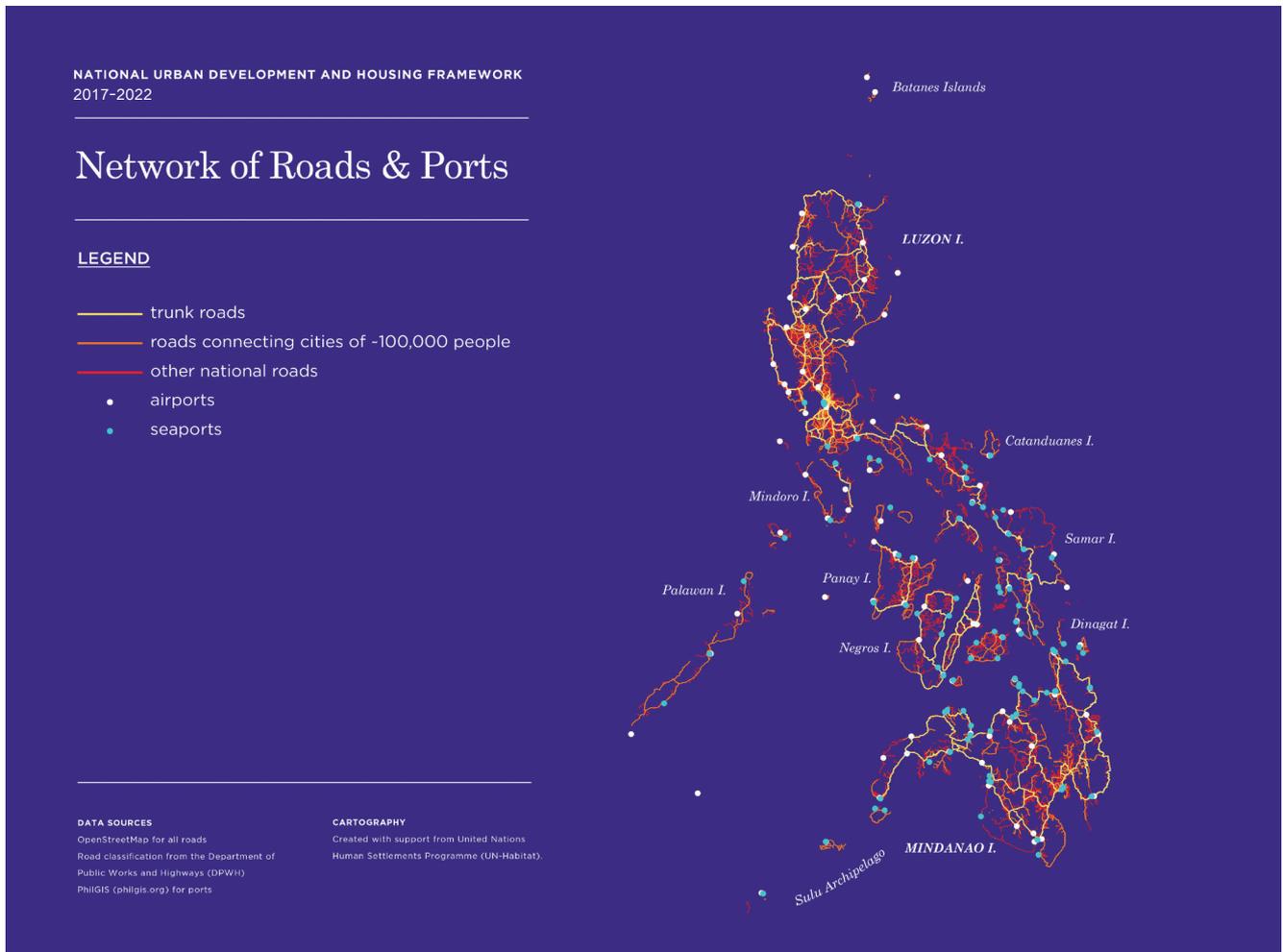
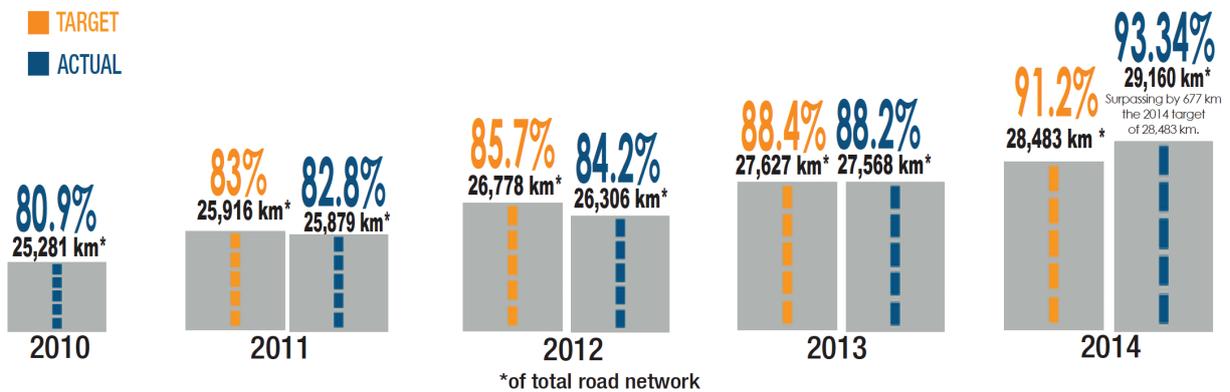


Figure 20. Paved National Roads



Source: Department of Public Works and Highways, Annual Report (2014)

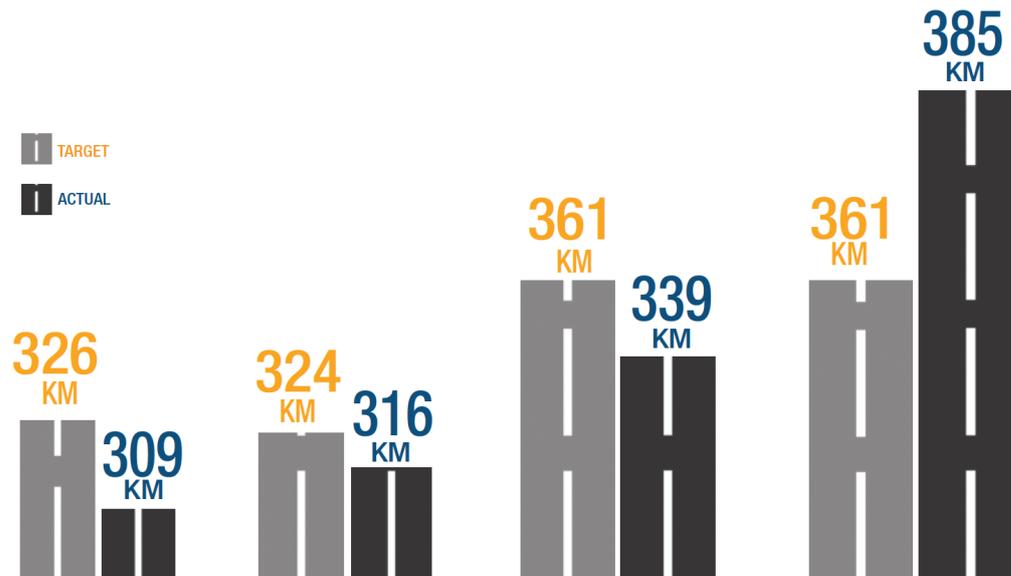
¹²² Department of Public Works and Highways, Annual Report (2014).

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Despite considerable progress in the development of national roads, these still need to be linked, through local roads, to existing ports and airports or roll-on/roll-off nautical transport facilities.

Figure 21. Length of Constructed Expressways in Kilometers ¹²⁵

The length of constructed expressways in the country is targeted to improve from a baseline figure of 286 km in 2010, to 324 km in 2012, 361 km in 2013, 387 km in 2015, and 437 km in 2016. In 2014, the DPWH and its concessionaire/private sector partners have constructed a total length of 385 km as against a target of 361 km.



Source: Department of Public Works and Highways, Annual Report (2014)

Airports

As of 2015, the Philippines has 85 airports under different categories, according to the Civil Aviation Authority of the Philippines.¹²³ Overall, key airports are operating over its design capacity, including international airports.

Table 16: Airports in the Philippines¹²⁴

Classification	Number
International Airport	10
Principal Class 1	15
Principal Class 2	19
Community	41

¹²³ According to the Civil Aviation Authority of the Philippines, airport categories are: 1) International airports are airports capable of handling international flights; 2) Principal airports or domestic airports are those which serve domestic destinations only; There are two types under this category – Class 1 principal airports, of serving jet aircraft with a capacity of at least 100 seats; and Class 2 principal airports, which serve propeller aircrafts with a capacity of at least 19 seats; 3) Community airports are primarily for general aviation.

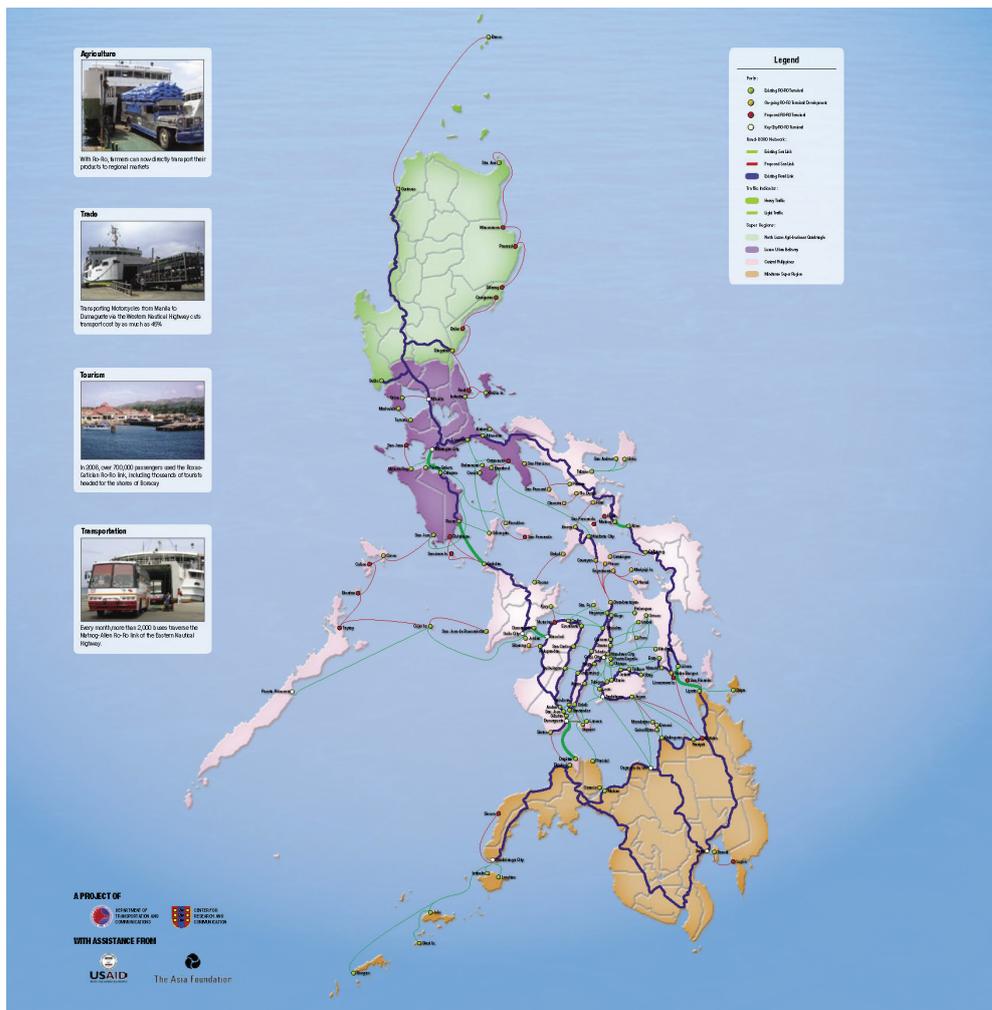
¹²⁴ Civil Aviation Authority of the Philippines.

¹²⁵ Department of Public Works and Highways, Annual Report (2014).

Table 17. Volume to Capacity Ratio of Key International Airports in the Philippines

AIRPORT	TERMINAL CAPACITY (in million pax)	TOTAL PAX TRAFFIC (in million pax)	DOMESTIC PAX (in M)	INT'L. PAX (in M)	Volume/ Capacity Ratio
Manila	30.00	36.30	19.40	17.20	1.21
Clark	4.00	0.87	0.04	0.83	0.22
Cebu	4.50	7.80	5.80	2.00	1.96
Davao	2.00	4.15	4.10	0.05	2.08
Iloilo	1.20	1.70	1.62	0.06	1.42
Kalibo	0.70	2.40	0.99	1.40	3.43
Palawan	0.35	1.40	1.40	0.01	4.00

Figure 22. Roll-on/Roll-off Nautical Routes Around the Philippines



Source: Linking the Philippine Islands Through Highways of the Sea, Center for Research and Communication, 2008

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Water Transport

Despite the archipelagic configuration of the Philippines, water transport only serves a minuscule share of inter-island accessibility and intra-island mobility. It carried 22.39 million passengers (1.22% share of total) and 55.99 million passengers in 2014. It carried a sizable portion of cargo throughput with 18.76 million metric tons of freight (42% of total) and increased to 214.813 million metric tons of cargo in 2014. One of the improvements was the establishment of the Strong Republic Nautical Highway Roll-on/Roll-off nautical system (Figure 22), which serves as the “moving bridges” between islands. According to the 2015 Philippine Ports Authority Annual Report, “Despite the impact of competition posed by airlines offering budget fares, the sea traveling public has apparently responded positively to the government’s domestic tourism programs encouraging leisure inter-island roll-on/roll-off nautical travel to heavily promoted tourism sites such as Batangas, Boracay, Coron and other tourist destinations.”

SOME PARTS

of overpasses like stairs encroach on sidewalks, resulting in pedestrians being forced to walk on the road space.

4.4.6.3 Institutional priorities affecting connectivity and urban mobility

Connectivity and mobility in urban areas in the Philippines are narrowly focused on vehicular transport, with minimal consideration for pedestrian movement. Typical vehicle types are buses, mini-buses, vans, jeepneys, motorized tricycles, and non-motorized tricycles, with taxis operating mainly in highly urbanized cities. The routes for buses, mini-buses, vans, and jeepneys are determined and controlled by the Land Transportation Commission, while those for motorized and non-motorized tricycles are under the local government units (LGUs). Partly because of this fragmented system of management, the mix of vehicle types can cause major traffic problems. There is often no system of transport terminals, parking, and coordinated traffic signs.

Because of the high priority given to vehicular movement, most transport projects are infrastructure-oriented. Many cities as well as national government have constructed flyovers at busy intersections, but these only transfer the traffic congestion to



another place. Cities have also constructed pedestrian overpasses, but these are often built after the roads and sidewalks have been completed. Thus, some parts of overpasses like stairs encroach on sidewalks, resulting in pedestrians being forced to walk on the road space.

Public transportation is traditionally operated by the private sector and regulated by national agencies. Only public motorized 2- and 3-wheelers are regulated by the local government. Because of this, cities may have limited control in managing and implementing an integrated public transport plan and policy framework to ensure socially inclusive mobility.

Transport planning and management is overseen largely by the Department of Transportation and its attached agencies. It also undertakes transport planning at the metropolitan level or large urban centers such as Metro Manila or Metro Cebu. Resources and data such as modal split, travel patterns, congestion areas, etc., are thus available mainly in the context of these projects. Transport issues are a consequence not only of the fragmentation of national and local government plans and programs, but of the lack of capacity of LGUs to manage and finance transport planning and management initiatives. This will be further discussed in Section 4.5.5.

Issues and Opportunities

1. Water supply is a critical basic service; increasing the urban water coverage is a must. Alternative sources of sustainable water supply should also be explored, in view of current and projected need, and cities' sensitivity to climate change impacts.
2. Water, sanitation and hygiene (WASH) programs are a key element in addressing climate-induced hazards, before and after the onset of disasters.
3. Supporting renewable energy development addresses two issues on sustainability: first is the conservation of the natural environment by tapping resources that have limited to zero impact on the environment; second is the creation of green jobs for sustainable work.
4. Drainage systems need to be improved in light of increasing urbanization and the anticipated impacts of climate change.
5. Waste management programs need to confront the issue of resource availability, especially land for sanitary landfills, and technical and financial capacity of LGUs to maintain waste facilities.
6. More appropriate infrastructure, urban design and strict enforcement of

Traffic remains to be a problem in areas such as Metro Manila and other highly urbanized cities, and it is aggravated by the fragmentation of national and local government plans and programs—a consequence of the LGU's insufficient capacity to finance and manage local projects

BOX 21. URBAN PLANNING IN THE PHILIPPINES

Urban planning in the Philippines occurs at various levels: national, regional, provincial and municipal/city government levels. The national, regional, and provincial levels have high-level policy plans that increase in detail to guide the municipal/city plans. The Local Government Code mandates local governments “to prepare their Comprehensive Land Use Plans enacted through zoning ordinances, which shall be the primary and dominant bases for the future use of the land resources.”

The basic planning instrument to guide urban planning of local government units is the CLUP.

regulations are needed to address the effects of sewage, untreated effluents, and possibly convert them into a resource.

7. Improvements in Information Communication Technology (ICT) must consider the current restrictive structure of the industry, as well as the archipelagic nature of the country.

8. There is an urgent need to expand the view of transportation, to include pedestrian and not just vehicular movement. This may require rethinking or re-orienting transportation infrastructure towards a more pedestrian focus.

9. Transportation strategies must ensure inter-area linkages that consider the country's archipelagic structure.

10. Government must harmonize and integrate transport planning and management in the context of overall urban development.

4.5 URBAN PLANNING AND DESIGN

Planning and design are indispensable in the pursuit of sustainable urbanization. They translate the vision and values of people into spatial considerations that promote economic, environmental, cultural and social development of communities. The continuous and rapid urbanization of the Philippines, which brings forth challenges as well as opportunities, demands that the national, sub-national, and local governments undertake informed and strategic urban planning.

Urban planning and design cannot be separated. The latter is a product of the urban planning process, with planning being more macro in terms of land use patterns or spatial planning, and urban design more detailed in providing information such as street design, block sizes and typical plot configuration, drainage plans, density of public spaces against commercial and private lots, building typologies and designs, circulation and mobility plan, floor area ratio, layout of parks and other public spaces, and so on.

The CLUP Guidebook 2013-2014 series has elaborated on urban design as a concept that “draws together the fields of planning and transportation policy, architectural design, development economics, landscape and engineering. It considers environmental responsibility, social equity, and economic viability to create livable places of beauty and unique identity.” Design seeks to realize the vision for an area by making the public realm more organized, aesthetically pleasing, and functional. It is the science of “place-making” which enhances the value of a city and improves the quality of life of its people.

4.5.1 Planning for Climate Change and Disaster Risk

Climate change and natural disasters have shown the effect of the lack of well-informed urban plans and designs in many areas of the country. There is an acknowledged need to update planning principles, processes, and tools to promote resilient urban development.

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National government has made significant efforts in recent years throughout the country to promote disaster risk reduction and management (DRRM) and climate change actions. The Philippine government has adopted legislation and policies that strengthen the enforcement of DRRM (R.A. 10121) and climate change adaptation (R.A. 9729). LGUs have also been directed to incorporate such measures in their CLUPs, Zoning Ordinances, and CDPs, and many of them have started to do so.

While many LGUs have started to comply, spurred by a continuing series of disasters over the past couple of years, implementation of these plans is generally weak. This is more evident when it comes to urban resilience. Seemingly, there is little buy-in and knowledge of the urban systems among the LGUs and local planners. Many LGUs lack the technical capacity for analyzing hazard and risk information and translating these into land use plans and urban designs. The CLUP Guidebook 2013-2014 series that was released by HLURB, which includes a segment on urban design, was relatively new for the LGUs to embrace. There is a growing need for LGUs to view urban planning and design under the lens of resilience.

4.5.2 Spatial Equity and Urban Land Efficiency

With proper urban planning and design, cities and municipalities can benefit from urban land efficiency. For instance, the concept of compact cities, with elements like mixed land use, efficient density, connectivity, and diversity, is becoming popular and more acceptable among urban planners, LGUs, the academe, and Key Shelter Agencies. However, the knowledge, tools, policies, and institutional coordination that gave focus on the urban systems remain inadequate.

While private developments, gated or masterplanned communities, display forward-looking design principles such as high density and mixed land uses, they remain disconnected from the larger urban fabric.

This inadequacy and exclusivity have decreased the ability of urban planning to transform urban activity into positive outcomes for the larger population, and has instead resulted in problems such as urban sprawl, land speculation, social segregation, congestion, informality, increasing greenhouse gases (GHG) emissions, encroachment of prime agricultural and fragile lands, high cost of urban infrastructure and services, ineffective property taxation and land valuation practices, declining density of public spaces, and the issues on connectivity.¹²⁶

Current urban policies are unable to address the interests and needs of most vulnerable groups such as youth, women, children, older persons, the poor, the landless, slum dwellers, migrant workers, persons with disabilities, indigenous peoples, and minority groups.

WHILE PRIVATE DEVELOPMENTS may display high density and mixed land uses, they remain disconnected from the larger urban fabric.



Photo ©Peter Friginal

¹²⁶ The HLURB, with technical support from Philippine Institute of Environmental Planners (PIEP) and UN-Habitat, initiated a series of stakeholder consultations in Visayas, Mindanao and Manila/Luzon in 2016 to facilitate a participatory national review process of the National Urban Development and Housing Framework (NU DHF).

According to the Housing and Urban Development Coordinating Council (HUDCC), “urban households with limited or no access to basic services, security of tenure, and affordable housing, have reached 3.6 million.”

Therefore, there is a need to develop appropriate and adequate planning measures to prepare cities and municipalities for highly complex urban transformation processes.

The government and the private sector continuously seek urban form solutions that will meet the conditions of sustainability and enable the built environment to function in a more productive and equitable manner. The HLURB through its CLUP guidebooks promotes urban designs that support mixed land uses. The Habitat III: Philippine New Urban Agenda (2016-2036), under the Land and Urban Planning Section,¹²⁷ also strongly advocates addressing urban sprawl and maximizing the benefits of urban agglomeration, connectivity, public spaces and integrated transport planning.

There is a need to develop appropriate and adequate planning measures to prepare cities and municipalities for highly complex urban transformation processes

4.5.3 Planning for Public Space

In the colonial past, plazas were every community's space for social participation and civic action. The local government maintained plazas, typically situated at the center between a political administrative office, a market place, the principalia residences, and a center of worship.

At the turn of the 20th century, shifting colonial planning paradigms from Spanish to American brought about changes to the spatial pattern. Plazas as public spaces evolved into grand parks and monuments.

For much of the 21st century, development of public space has been relegated to the private real estate developer. What was previously the sole responsibility of the executive government in place making became the domain of the private investor.

The emergence of gated communities is also increasingly fragmenting urban public space.¹²⁸

Under Sec. 31 of P.D. 1216 (Defining "Open Space" in Residential Subdivisions), 30% of the gross area for open space is reserved for parks, playgrounds, and recreational use. P.D. 953 (Requiring the Planting of Trees in Certain Places and Penalizing Unauthorized Cutting, Destruction, Damaging and Injuring of Certain Trees, Plants and Vegetation) also provides for the creation and conservation of urban forests in private lands.

The escalating exclusivity of public spaces is not an isolated case in gated communities. It is also prevalent in open coastlines where private resorts with foreshore leases ban the mooring of small boats by fisher folk like catamarans or bancas on their front lot beaches; legally, no one has the right to ban what is already for public use.

Meanwhile, the malls and commercial areas have become the new centers of community and social interaction, solidifying privately owned "public" spaces.

¹²⁷ The Housing and Urban Development Coordinating Council, Habitat III: The Philippine New Urban Agenda (2016).

¹²⁸ UN-Habitat, The State of Asian and Pacific Cities (New York, 2015).

Creating public spaces is often de-prioritized in spatial development thrusts and strategies, since these land uses are perceived to be negative investments that do not produce monetary revenue.

The creation of public spaces, however, has intrinsic values of social and environmental importance. Residents of cities with dedicated public parks and walkable or bikeable road networks are healthier and happier than those from urban areas that do not have access to these basic amenities.¹²⁹ Also, open green spaces are considered to be effective carbon sinks and flood mitigation measures, and essentially used as emergency evacuation sites.

Public spaces such as parks, barangay plazas, walkways, urban forests, or open coastlines not only function as vital greenbelts that become buffers and corridors between conflicting land uses (e.g. industrial and residential zones), but also serve as places of interest that become centers of social interaction and mobility.

The National Integrated Protected Areas System (NIPAS) Act of 1992 states that “the use and enjoyment of these protected areas must be consistent with the principles of biodiversity and sustainable development.”¹³⁰ The NIPAS includes environmentally critical areas, national parks, networks of protected areas for agriculture and agro-industrial development, and river basins/watersheds, ecologically fragile lands, mineral lands including exhausted, mudflats/inland waters/inter-tidal flat/estuaries/coastal area/zone, geohazard prone areas/flood plain/flood prone areas, forestlands, and foreshore land.

Meanwhile, the National Cultural Heritage Act of 2009¹³¹ provides for the “protection and conservation of the national cultural heritage, strengthening the national commission for culture and the arts and its affiliated cultural agencies and for other purposes.” The law defines heritage zones as

“historical, anthropological, archaeological, artistic geographic areas and settings that are culturally significant to the country, as declared by the National Museum and/or the National Historical Institute.”

The Water Code mandates that “1) the banks of rivers and streams and the shores of the seas and lakes throughout their entire length within a zone of three (3) meters in urban areas, twenty (20) meters in agricultural areas, and forty (40) meters in forest areas, along their margins, are subject to easements of public use in the interest of recreation, navigation, floatage, fishing and salvage.”

The Urban Agriculture Act, passed in 2013, tasks LGUs to formulate policy on the practice of urban farming to utilize unused spaces and idle lands. This entails integrating urban agriculture in zoning and/or other local policies.

Aside from the infrastructure mandated by the Local Government Code, LGUs are mandated to provide parks and other public assembly areas, greenbelts, inter-municipal waterworks, drainage and sewerage, and flood control and irrigation systems.

4.5.4 Urban Sprawl

In rural areas, peri-urban expansions sometimes encroach on agricultural lands and environmentally-sensitive areas such as river basins, watersheds, coastlines or disaster-prone areas. The increasing number of real estate developments is an indicator of rapid urban or peri-urban expansion, which is largely dictated by private land owners and private developers.

Without proper consideration of transport links and social integration, the result is urban sprawl, segregation, and connectivity issues (e.g. long commutes between residences and urban centers where public services and livelihood opportunities are concentrated).

¹²⁹ 129 Ruth F. Hunter et al., “The Impact of Interventions to Promote Physical Activity in Urban Green Space: A Systematic Review and Recommendations for Future Research” *Social Science & Medicine* 124, (January 2015), pp. 246–256.

¹³⁰ Republic Act No. 7586 (1992): Sec. 2.

¹³¹ Republic Act No. 10066 (2010).

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The loss of prime agricultural lands is a related consequence, pushing food production areas farther away and increasing food prices.

The basic planning instruments to guide urban expansion and contain urban sprawl are the CLUP, Zoning Ordinance, and the CDP, which all LGUs are mandated by law to prepare and regularly update. The challenge is how to empower and capacitate the public sector to promote and regulate urban expansion that is more inclusive and sustainable.

4.5.5 Urban Connectivity and Mobility

The Comprehensive Land Use Plan (CLUP) and the Comprehensive Development Plan (CDP) set the physical and sectoral strategic plan for local transport, respectively. The scope of transport, which is under the infrastructure sector, is often limited to roads, and, when applicable, sea and airport facilities. Only a limited number of cities have transport and traffic management plans. Transport planning is often fragmented and not approached as

a network in strategic plans. While the spatial strategies that are presented in the CLUP present the proposed road network plan, it often only follows the wider framework set by national agencies, or, if proposed by the LGU, is not guaranteed to be implemented due to budget constraints or politics.

Comprehensive urban transport plans that feature an integrated land use and transport approach are also perceived to be too complicated and costly to be undertaken by most LGUs. These have been conducted only for highly urbanized cities like those in Metro Manila, Metro Cebu, Iloilo City, and Metro Davao.

LGUs have limited capacity not only for transport planning and management, but also urban design, which would help transform strategies into built form. While compact development, densification and mixed-use development are already promoted through zoning, accessibility on ground is often still de-prioritized, if not disregarded. As a result, congestion is more prominent in the urban core areas, and non-motorized transport

UBAN SPRAWL
can result in long commutes between residences and urban centers where public services and livelihoods are concentrated.



Photo © Dreamstime.com | Edwin Verin

infrastructure such as sidewalks, if not lacking, are often encroached upon by vehicles, vendors, illegal construction, or other obstructions.

With connectivity and mobility issues as a consequence of fragmented systems and insufficient local capacity, government agencies like DOTr, LTFRB and DILG are initiating joint efforts to empower LGUs in planning and managing route plans within their territories. How effectively these are integrated into CLUPs and CDPs remains to be seen.

4.5.6 Institutional Capacity

The challenges of urbanization place immense pressure on LGUs, which often lack the institutional and technical capacity to adopt a sustainable and strategic urban planning approach.

The enactment of the Local Government Code in 1991 expanded the role of LGUs to include local development planning and provision of urban services. However, broadening the scope of responsibility did not automatically translate to the financial and technical resources needed to perform such responsibilities. Long-term urban development visions are also compromised because of unpredictable political cycles that affect continuity of plans and programs. This leads to planning approaches that are short-sighted, reactive, and parochial.

Meanwhile, institutional frameworks “at the macro level are lacking a strong national agency to assume the urban mandate.” Many institutions are involved in activities related to urban development and management, without much coordination, integration and focus, and overlapping roles, responsibilities, and programs.¹³² This further weakens LGUs’ urban planning capacity, which is already outweighed by the rapidly forming, complex

urban issues, and the influence of private sector development.

The CLUP guidebooks have sought to improve the capacities of LGUs in urban planning, and promote a better understanding and appreciation of urban systems and innovative approaches. The guide also took the opportunity to promote urban design principles such as inclusivity, heritage conservation, connectivity, working with nature, mixed land uses and forms, among others.

Issues and Opportunities

1. Urban plans and designs will help determine cities and municipalities’ capacity to adapt to climate change and prepare for disasters. Urban planning and design can directly contribute to climate change adaptation and mitigation, through land and water use and protection, urban forms, specific area development, building designs and even choices of materials and inputs for development.
2. There is a need to develop appropriate and adequate planning measures to prepare cities and towns for highly complex urban transformation processes that meet the conditions of sustainability, and enable the built environment to function in a more productive and equitable manner.
3. Planning and design must target urban activities that have led to persistent urban problems like inadequate and expensive housing, urban blight, urban sprawl, car dependency, segregation and exclusion. LGUs and other stakeholders should explore the development of more compact, open, walkable, connected, and integrated settlements that aim to solve such problems.
4. The physical scope of planning needs to be reviewed to acknowledge and optimize various spatial structures and functional regions, such as the metropolitan area,

¹³² Asian Development Bank, Philippines Urban Sector Assessment, Strategy and Road Map (2012).

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Photo ©Peter Friginal



WHILE OFFICIAL DATA indicate that 20% of the 7.5 million urban households fall below the poverty income line, this indicator alone does not capture the dire situation of informal settlers.

watershed, and others beyond the usual administrative and political jurisdiction.

5. A fundamental shift in planning approaches—from development led by the market and private sector to one that is steered by the public sector—is necessary.

6. It is vital that the government addresses the central issue of planning at the local level, specifically: outdated approaches; lack of a sufficient planning database and tools for analysis; plan continuity and implementation; and monitoring. These would require technical and financial investments.

4.6 URBAN SHELTER

Ongoing National Housing Authority (NHA) and Social Housing Finance Corporation programs directly provide either secure tenure and basic services or financial assistance to eligible informal settler families (ISFs), including those living in Metro Manila's danger zones. Since 2011, the NHA has been at the forefront of a housing program

involving the in-city or near-city relocation of 104,000 ISFs residing in the danger areas of Metro Manila. Over a period of five years using a PHP 50 billion fund from the national government, NHA's in-city relocation entails the construction of two- to five-story low-rise buildings in its own properties or those of participating local governments. A parallel program is the near-city resettlement which develops sites located in the periphery of Metro Manila for cases where in-city relocation is not feasible. Priority beneficiaries to be relocated under the program are those living along the 3 m easement of eight waterways in Metro Manila in order to implement a Metro Manila flood control project spearheaded by the Department of Interior and Local Government (DILG) through an inter-agency committee.

In the Philippines, urban population growth outpaces service delivery. Affordable shelter and land markets have not kept pace with rapid urban growth as more than 40% of urban families have to live in makeshift dwellings in informal settlements. While official data indicate that only about 20% of

the 7.5 million urban households fall below the poverty income line,¹³³ this indicator alone does not capture the dire situation of informal settlers.

Many of the urban poor living in informal settlements suffer from: lack of access to safe water supply and sanitation as well as proper solid waste disposal; poor-quality housing; insecure tenure; and high risks to public health. Moreover, complicated legal processes prevent them from obtaining legal titles to their places of residence.¹³⁴ HUDCC estimates that as of 2016, ISFs total 1.4 million nationwide, 38.85% (544,000) of which are in the National Capital Region (NCR).

Informal settlements are also more exposed to risk, as they are located in dangerous locations such as along railroad tracks, creeks, and riverbanks.

Greater Metro Manila, the largest metropolitan region in the country, hosts 33 million people; other large urban areas include Metro Cebu and Davao City. Overall, there are about 326 cities and urban municipalities. Because the country is an archipelago, nearly all of these urban centers are along or near the coast, and a huge segment of the population as well as economic and social infrastructure is therefore exposed to risks associated with climate change.¹³⁵

4.6.1 Housing Supply and Demand

With a large housing deficit and a mandate weakened by a lack of commensurate resource allocation powers, HUDCC has primarily concerned itself with administration and delivery of housing.¹³⁶ Housing supply has been seriously hampered by inadequate technical, financial, and managerial

capacities—particularly at the local level—to plan and implement large-scale programs critical to urban renewal, slum upgrading, and new site development, according to a study by the National Informal Settlements Upgrading Strategy. This concurs with Asian Development Bank's findings on the capacity of LGUs. Also, full decentralization of functions of LGUs has not yet taken place, and many national agencies are still engaged in what should be local concerns, including shelter.¹³⁷

The private sector, on the other hand, focuses their resources on the delivery of housing for the higher-end of the market, and for those with access to formal finance.¹³⁸

The demand for urban land in the Philippines far outstrips supply. Access to affordable, well-located, and suitable urban land has been severely constrained by unclear and inconsistent land use policies, weak land administration infrastructure, highly politicized land and tax system, an inadequate agrarian land reform program, and a deficient housing development program.¹³⁹ A tedious, complex regulation system and inefficient land registration process compromise and distort the urban land market, drive up land costs, and create an "artificial shortage of urban land." This exacerbates the high cost of land, feeds speculation, and makes housing even more unaffordable.¹⁴⁰

This limited access to land and dysfunctional land markets result in poorly located low-income housing areas often too far from employment and livelihood opportunities, or in the spread of informal settlements in public lands or unoccupied but otherwise high-risk areas. The unclear and highly bureaucratic land administration, management and conversion processes excessively burden the urban poor seeking to regularize land tenure.

¹³³ Monthly poverty threshold for a family of 5 is P8,022 as of 2015 (Official Gazette, July 2015).

¹³⁴ Asian Development Bank, Philippines National Urban Assessment (2014).

¹³⁵ Asian Development Bank, Philippines Urban Sector Assessment, Strategy and Road Map (2012).

¹³⁶ Ibid.

¹³⁷ Ibid.

¹³⁸ Housing and Urban Development Coordinating Council, Developing a National Informal Settlements Upgrading Strategy for the Philippines (2014).

¹³⁹ UN-Habitat, Habitat III: The Philippine National Report (2016).

¹⁴⁰ Ibid.

Indirect housing subsidies, which distort housing prices and consumer decisions, create disincentives for the private sector to participate actively in socialized housing. There is limited financing available for low-income and pro-poor housing production.¹⁴¹

On the demand side, the major constraints to securing decent, affordable housing are:

- limited ability of low income and urban poor to pay for housing;
- physical and administrative difficulties encountered by the urban poor in accessing credit for housing and livelihood opportunities;
- where microfinance is available, it is often uncollateralized, short-term, and carries significantly higher interest rates.¹⁴²

For the minimum wage earners, the Pag-IBIG Fund introduced the Affordable Housing Loan Program. The Affordable Housing Loan Program offers subsidized interest rates of 4.5% to 6.5%, depending on the borrower's income and the amount of the loan. The maximum loanable amount under this program is PHP 750,000. Since its implementation, about 27,000 members have availed of the program.

All told, the government's accomplishments have led to increased access to housing and basic services for the poorest 30% of the total population. However, it still lags considerably behind the total socialized housing need. For the period of 2011 to 2015, the Key Shelter Agencies under the umbrella of HUDCC have provided direct housing assistance to 842,677 households. This translates to a yearly average of 168,535 households assisted per year (during the period 2011-2015), constituting

less than 10% of the estimated average annual housing need of 926,077.¹⁴³

The housing problem is serious and is a largely urban phenomenon. The need for housing is estimated to reach about 5.56 million housing units in 2016.

To address the housing deficit effectively would require innovative and high-density housing strategies.¹⁴⁴ The high urbanization rate implies that more people need access to dwindling urban land. This contributes to the escalating cost brought about by increased competition for various urban uses other than housing.

4.6.2 Land Tenure

Land tenure has been an issue in the Philippines for centuries. The nation's land titling system has resulted in a massive amount of untenured, unclaimed, unimproved and/or disputed land. They also set the stage for the tangle of legal disputes that continue to beset the nation today, and the proliferation of informal settlements.

Formulation of official state policy on ISFs only began after the 1987 Constitution. In 1992, the Urban Development Housing Act (UDHA) was passed, reinforced in 1994 by R.A. 7835 or the Comprehensive and Integrated Shelter Financing Act. R.A. 7835, at the national level, put the onus of dealing with informal settlers mainly on the NHA and the HUDCC.¹⁴⁵

Twenty-nine years after the passage of the 1987 Constitution and 25 years after the passage of UDHA and other related laws and programs such as R.A. 7835, Community Mortgage Program and its variant Localized Community Mortgage Program, the housing

¹⁴¹ Idem.

¹⁴² Ibid.

¹⁴³ Housing and Urban Development Coordinating Council, *Developing a National Informal Settlements Upgrading Strategy for the Philippines* (2014).

¹⁴⁴ NEDA, 2017-2022 Philippine Development Plan.

¹⁴⁵ Lila Ramos Shahani, Rappler, "Manila's biggest challenge" (3 April 2012), <https://www.rappler.com/thought-leaders/3305-manila-s-biggest-challenge>.

problem persists. It has gotten more complicated in the government's attempt to provide housing for all segments of the population and its desire to involve the private sector as provided in the UDHA. Continued urbanization compounds the housing problem; the push of poverty and the pull of employment into urban centers drives most migrants to where their families or friends are, which are generally in existing informal settlements due to affordable rents.¹⁴⁶

4.6.3 Vulnerability to Climate Change and Disaster Impacts

ISFs are some of the most vulnerable urban populations, due to the impact of climate change and disasters. Such vulnerability relates to the fact that most informal settlements are not planned, and houses are not properly constructed. They are often located on relatively inexpensive but hazardous lands such as flood plains, steep slopes, and garbage dumps; or are close to electricity transmission lines that are prone to flooding, landslides, and other disasters. They are also often along *esteros*, rivers, creeks, and coastal areas, which are more exposed to climate change impacts.

Their economic status and reduced access to basic services also make them more sensitive: they are likely to suffer greater losses than those in higher income classes. Insecure tenure, coupled with socio-spatial exclusion, reduces their capacity to engage with formal methods of receiving information and financial assistance to cope with disasters.¹⁴⁷

4.6.4 Access to Resources for Government Housing

The housing problem is further worsened by the lack of funding. The budget allocation is inadequate for the construction of 5.5 million units currently needed across the Philippines.



Photo ID 42575480 © Jun Pinzon | Dreamstime.com

There are some innovative projects but none has so far been able to create the scale needed to adequately narrow the housing demand and supply gap posed by rapid urbanization.

From 1996 to 2013, a total of 1,645,604 or 91,422 housing units per year¹⁴⁸ were provided, which represents roughly 10% of the estimated housing need. This perpetuates the formation of informal settlements in Metro Manila and other urban metropolis around the country, as ISF are unable to access the formal housing system due to low affordability levels.

The total housing need of 6 million up to 2030 requires a total budget of PHP 2.7 trillion or an annual budget of PHP 180 billion¹⁴⁹ per year. If housing were allocated just 5% of the total annual budget similar to other countries, that translates to PHP 135 billion, which would be adequate to supply the 100,000 units required by the National Informal Settlement Upgrading Strategy (budgeted at PHP 45 billion) and an additional 300,000 units annually for qualified housing beneficiaries.

MOST INFORMAL SETTLEMENTS are not planned and are often located on relatively inexpensive but hazardous lands such as flood plains, steep slopes, and garbage dumps.

¹⁴⁶ As gathered in the NUDHF regional consultations conducted in Mindanao, Visayas and Luzon, 2016.

¹⁴⁷ World Bank Institute, Innovative Land Tool Series, "Sustainable Urban Land Use Planning" (Oct.-Dec. 2015).

¹⁴⁸ UN-Habitat, Habitat III: The Philippine National Report (2016).

¹⁴⁹ Computation based on current P450k per MRB socialized housing unit.

Lack of resources, mainly income, results in a lopsided urban form: many urban areas exhibit a clear divide between high-end enclaves and the informal settlements at the fringes.

In 2016, the budget allocation for housing was only PHP 13 billion.¹⁵⁰ The intentions for ISFs through the National Informal Settlement Upgrading Strategy may not be realized if no funds are allocated annually until 2025.

As population swells in urban centers, the competition for finite urban land intensifies. This pushes land values to prices that are too expensive (from PHP 20,000 to PHP 90,000 per m², depending on location) for housing within the affordability levels of the underprivileged and homeless.

4.6.5 Settlement Integration

Lack of resources, mainly income, results in a lopsided urban form: many urban areas exhibit a clear divide between high-end enclaves and the informal settlements at the fringes. Housing development becomes more uneven with the prevalence of offsite resettlement for informal settlers, many of whom remain socially and economically embedded in their places of origin. While government now promotes in-city resettlement, existing offsite resettlement continues to strain families' meager resources. It also creates tension within the urban fabric, stretching the limits of transportation and social infrastructure.

Issues and Opportunities

1. LGUs need to increase technical, financial, and managerial capacities in order to successfully plan and implement large-scale programs for housing, urban renewal, slum upgrading, and new site development.
2. Insufficient land use policies, weak land administration, politicized land and tax systems, and inadequate agrarian land reform program and housing development programs impede the delivery of affordable housing and must be resolved immediately.
3. Successful housing programs depend not only on the supply but also on the ability of low-income and poor households to shoulder the cost of housing. This means providing families with wider channels to access housing options and, equally important, livelihood opportunities that can increase household income and support their housing goals.
4. Urban development and housing strategies must support efforts to increase the capacity of urban poor to adapt to climate change and disaster impacts.

¹⁵⁰ Government of the Philippines, General Appropriations Act for 2016.

5. Government must aim for more adequate housing budget, or otherwise manage the values of land and related resources in order to secure the necessary requirements for urban poor housing and basic services.

6. Housing needs to be acknowledged as part of a larger urban ecosystem that includes not only the housing structure but also related economic activity, transportation and infrastructure, social and cultural integration, and overall quality of life.

4.7 URBAN ECONOMY AND FINANCE

Sustainability dictates that the use of resources in each functional region must manifest in an equitable distribution of goods, so that every household in the community is able to provide for its immediate and future needs. This entails the participation of households in economic activities that generate their income, which consequently provides them with a more significant access to the system. However, realities in urban areas have and continue to challenge this ideal.

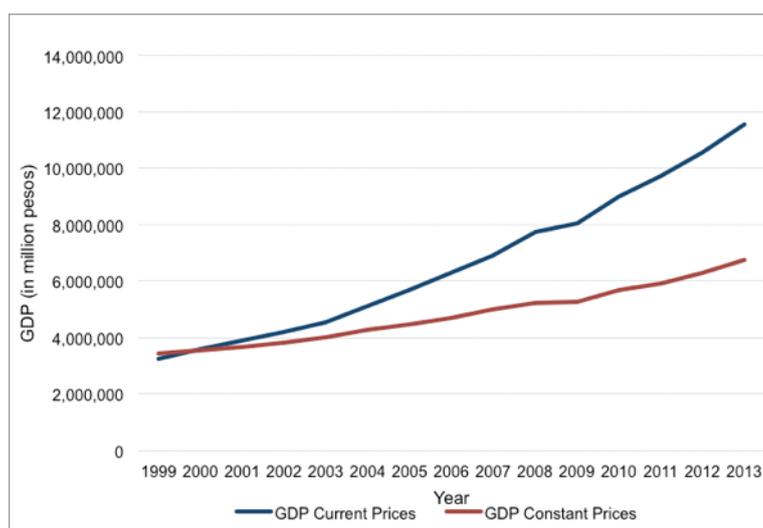
Urban areas, particularly cities, have indeed helped propel the development of the urban economy, which in turn spurs overall economic growth. The National Capital Region currently contributes 36% of the country's GDP. While this has decreased from 50% 20 years ago, the urbanization of adjacent cities like Antipolo, Lucena, Angeles, and Olongapo have led to the creation of a larger urban agglomeration that, together with the National Capital Region, now accounts for 63% of the GDP. The other 27% are produced by urban centers in the Visayas and Mindanao, while the remaining 10% comes from the combined share of the Ilocos, Cagayan Valley, Cordilleras, and Mimaropa regions.¹⁵¹

Despite such economic dominance, many cities are confronted by the inability to absorb the pressures of urbanization. They are unable to provide adequate urban infrastructure, housing, and urban services. They are incapable of translating economic gains into efficient expenditures for the benefit of growing urban populations.¹⁵²

4.7.1 Urban-based Economic Activities

The Philippines' GDP increased at an average annual growth rate of 10% and 5% from 1999 to 2013 at current and constant prices, respectively. The urban-based sectors dominated the economy as evidenced by the 54% average share to GDP of the service, and 33% for the industry sectors, respectively. While this trend conforms to the sectoral structure of the world economy for middle-income countries by the World Bank, there was no significant structural transformation in the Philippine economy in the last 15 years.

Figure 23. Philippine GDP, 1999–2013 (at Current Prices and 2000 Constant Prices)¹⁵³



¹⁵¹ UN-Habitat, Habitat III: The Philippine National Report (2016).

¹⁵² Ibid.

¹⁵³ Philippine Statistics Authority.

CONTEXT AND CRITIQUE: THE FILIPINO URBAN NARRATIVE

The service sector comprised more than half the average share in employment for the period of 2003 to 2013, followed by agriculture at 34% and industry at 15%. The service sector absorbed the excess labor from agriculture, in the absence of a strong secondary sector. Nonetheless, most of those employed in the service sector are in low paying or low-skilled jobs, such as small retail trade and public transportation. There has been no significant increase in productivity in the service sector.¹⁵⁴

Figure 24. Percent Distribution of GDP by Industrial Origin, 1999-2013 (at Current Prices and 2000 Constant Prices)¹⁵⁵

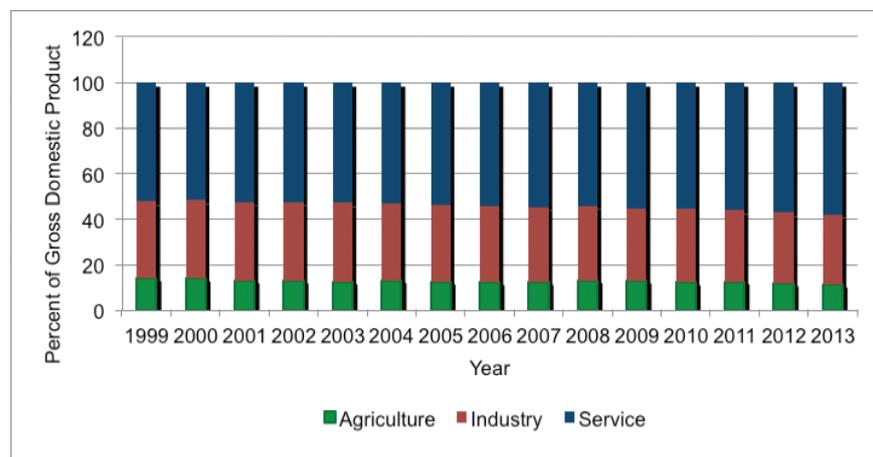
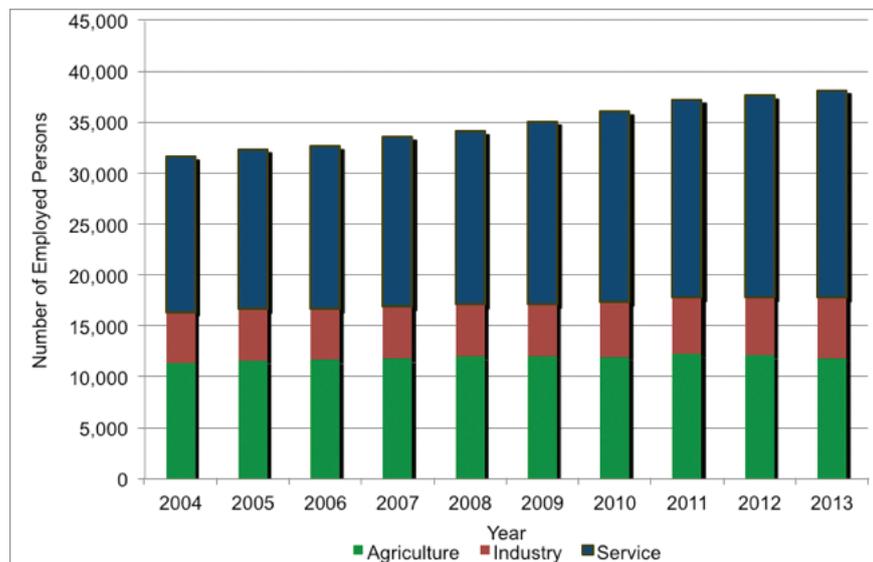


Figure 25. Employed Persons by Major Industry Group, 2004-2011¹⁵⁶



¹⁵⁴ World Bank, Philippine Development Report : Creating More and Better Jobs (Washington, DC, 2013).

¹⁵⁵ Philippine Statistics Authority.

¹⁵⁶ Ibid.

The agriculture sector also exhibited very low productivity with its scanty share of 13% to GDP, despite comprising one-third of the country's employment.

On the other hand, 1,456 establishments were engaged in Business Process Outsourcing activities in 2012, employing 455,643 persons.¹⁵⁷ Eight-three percent of the jobs were in call centers (voice). The rest were in data processing and computer programming activities, information technology and computer service activities, among others. Total compensation from Business Process Outsourcing activities amounted to PHP 161.9 billion, equivalent to an average annual compensation of PHP 355,521. Seventy-eight percent came from call center activities (voice). However, software publishing employees received the highest average compensation of PHP 651,080, followed by computer programming (PHP 575,477) and computer consultancy and computer facilities management (PHP 488,247).

4.7.2 Income and Expenditure

GDP per capita at current prices increased from PHP 42,253 in 1999 to PHP 117,612 in

2013, with an average annual growth rate of 8%. At constant prices, it increased from PHP 48,085 in 1999 to PHP 141,063 in 2013, registering a low annual growth rate of 3%.

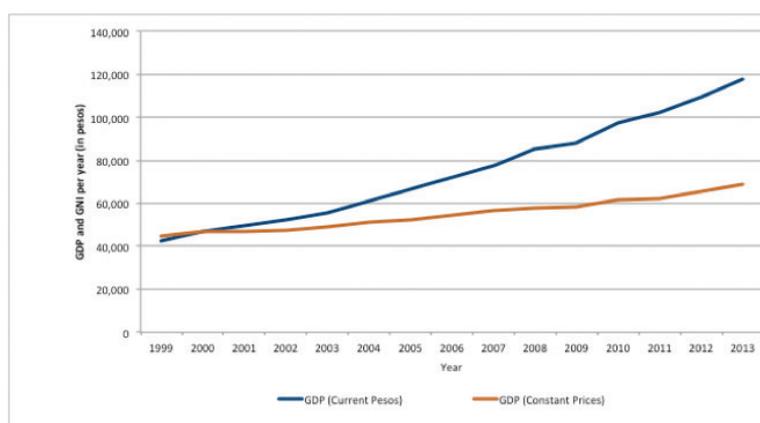
The difference between urban and rural income and expenditure is wide, with urban households earning and spending more than twice than those in the rural areas. In 2000, urban households earned PHP 204,977 compared with PHP 85,373 by rural households. Urban households spent PHP 164,794, compared with only PHP 72,953 by rural households.

4.7.3 Urban Poverty

Poverty incidence in the Philippines was at 21% in 2015. Mindanao exhibited the highest poverty incidence at 34%, followed by Visayas at 29%, and Luzon at 13%. Poverty incidence in the National Capital Region is low at 4%, and higher at 16% outside the National Capital Region in Luzon.

Decreasing poverty incidence in urban areas is evident, indicating improved performance of the urban system. However, a large segment of the urban population sits just above the poverty line and is extremely vulnerable to

Figure 26. Philippine GDP Per Capita, 1999–2013 ¹⁵⁸



¹⁵⁷ Philippine Statistics Authority, Annual Survey of Philippine Business and Industry (2012).

¹⁵⁸ Ibid.

Figure 27. Regional GDP Per Capita

NATIONAL URBAN DEVELOPMENT AND HOUSING FRAMEWORK
2017-2022

**Gross Domestic Product
Per Capita, Regional**

compared to the national average, as of 2013*

LEGEND



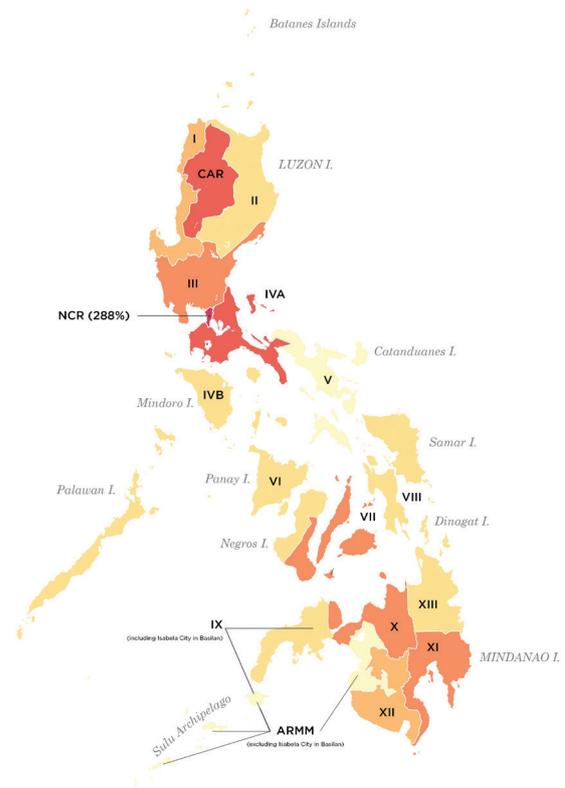
* According to the Philippine Statistics Authority (PSA)

DATA SOURCES

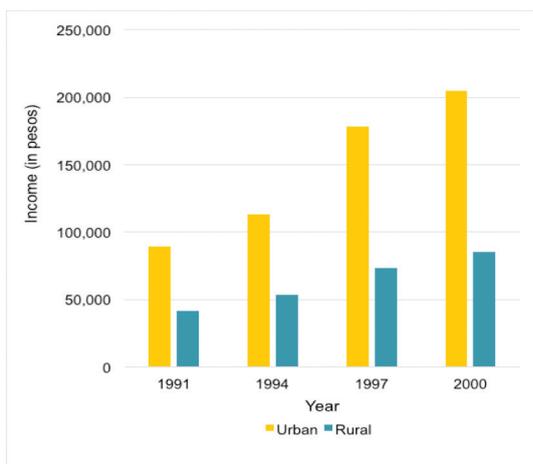
Philippine Statistics Authority (PSA)
(psa.gov.ph)
Philippine GIS Clearinghouse (philgis.org)
for administrative boundaries

CARTOGRAPHY

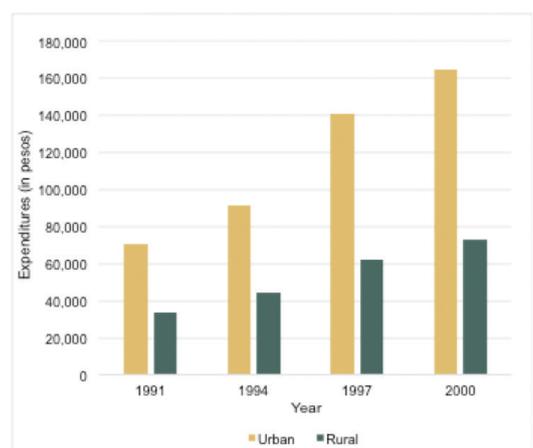
Created with support from United Nations
Human Settlements Programme (UN-Habitat).



**Figure 28. Average Household
Income, Urban and Rural, 1991,
1994, 1997 and 2000¹⁵⁹**



**Figure 29. Average Household
Expenditure, Urban and Rural,
1991, 1994, 1997 and 2000¹⁶⁰**



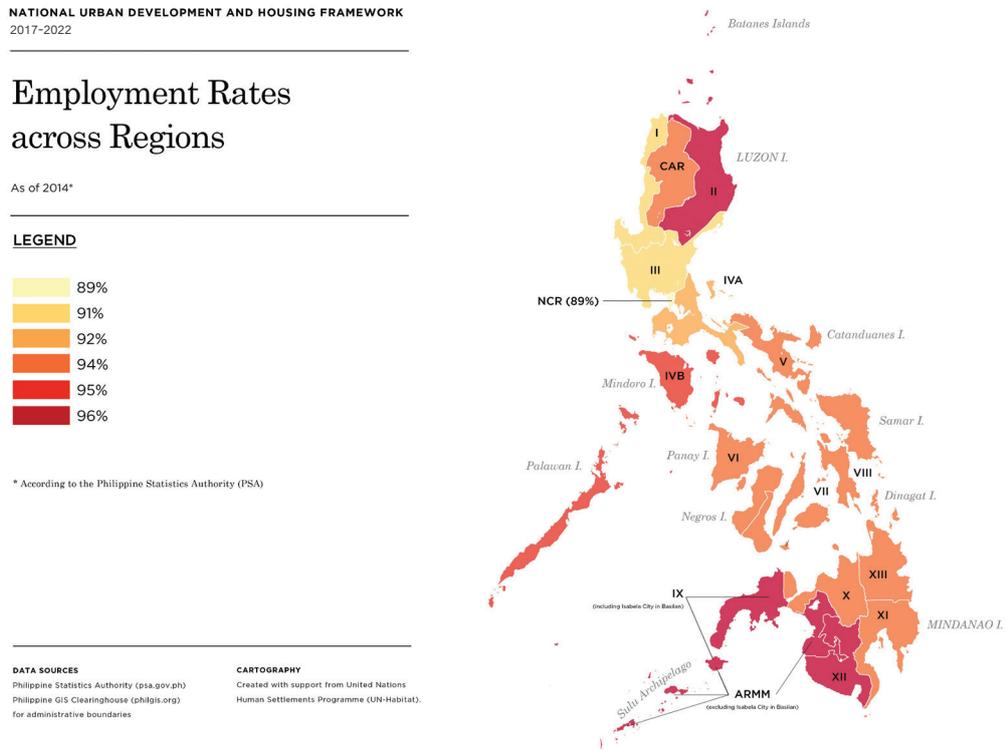
¹⁵⁹ The Philippine Statistics Authority, Annual Survey of Philippine Business and Industry (2012).

¹⁶⁰ Ibid.

¹⁶¹ Asian Development Bank. Republic of the Philippines National Urban Assessment (2014).

¹⁶² Philippine Statistics Authority.

Figure 31. Employment Rates Across Regions



According to the Housing and Urban Development Coordinating Council (HUDCC), the poorest sectors in cities—the three bottom deciles of income distribution—comprise a large segment of informal settler families (ISFs). While the more urbanized regions and provinces such as Metro Manila, Bulacan, Pampanga, Cavite, Laguna, and Rizal have much lower poverty incidences—ranging from 3.1% to 7.6% compared to 34.1% to 46.9% in the predominantly rural regions of Mindanao—the multiplicity of vulnerabilities and deprivation affecting millions of ISFs in these cities make them more vulnerable. The absolute number of poor families in the highly urbanized cities of the Philippines will likely continue to increase in the future. Hence, the locus of poverty will generally move to the cities, a process that has been called the “urbanization of poverty.”¹⁶³

4.7.4 Local Finance

4.7.4.1 Internal revenue

Local government units (LGUs) are largely dependent on tax revenues to meet their financial requirements. From 2005 to 2013, 88% of the total income of LGUs came from Internal Revenue Allotment. Only 7% of their total income came from operating and miscellaneous revenues. For the same period covered, income from tax revenues increased at an annual average growth rate of 9%.

Income from operating and miscellaneous revenues grew at a higher rate of 12%. About three-fourths of the total income was spent by the LGUs for personal services and maintenance and other operating expenses.

¹⁶³ Housing and Urban Development Coordinating Council, Developing a National Informal Settlements Upgrading Strategy for the Philippines, (2014).

Figure 32. Income of LGUs by Source, 2005-2012

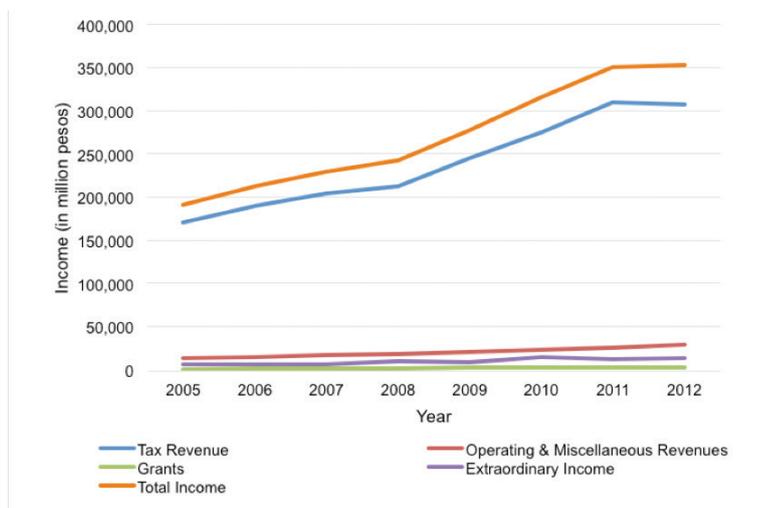
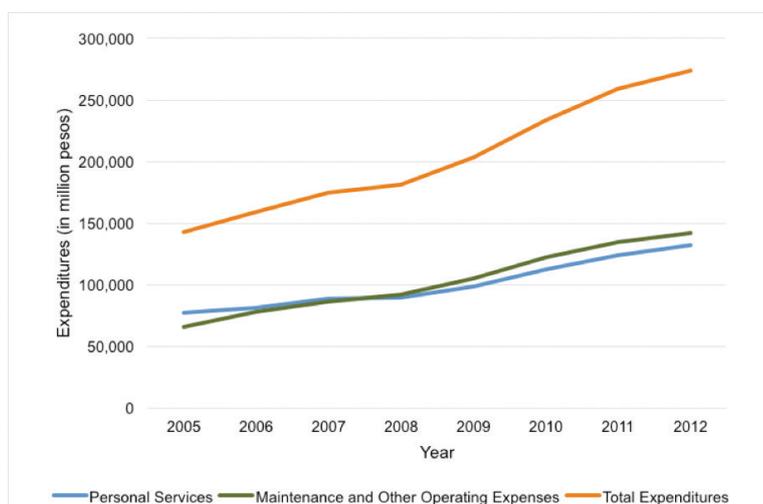


Figure 33. Expenditures of LGUs by Type, 2005-2012



4.7.4.2 Private sector participation

As of May 2016, 12 projects worth a total of PHP 197.74 billion have been awarded to private entities for implementation. These include six projects under the Department of Transportation (DOTr), three under the Department of Public Works and Highways, two under the Department of Education,

and one under the Department of Health. The Metro Rail Transit (MRT) Line 7 Project worth PHP 68.30 billion under the DOTr was awarded under the Build-Operate-Transfer Law. The Metro Manila Skyway Project Stage 3, worth PHP 37.43 billion, under the Toll Regulatory Board was under a joint venture agreement.

Only two projects were executed through public-private partnerships by LGUs: the Tanauan City Public Market Redevelopment Project by the city government of Tanauan; and the Baggao Water Supply Project by the municipal government of Baggao, Cagayan. In addition, 39 various projects are still in the pipeline.

4.7.4.3 Grassroots budgeting

Grassroots participatory budgeting process is an approach to budget proposal preparation of national line agencies, taking into consideration the development needs of cities/municipalities based in consultation with the basic sector and other civil society organizations, and as identified in their respective local poverty reduction action plans. This is a strategy to ensure the inclusion of the development needs as identified in the budget proposal of participating government line agencies.

The allocation for bottom-up budgeting amounted to PHP 20.9 billion in fiscal year 2015. Of this amount, Regions VII and VIII got the highest allocation (9.1% each), followed by Region IV-A and Region V, and Region III (8% each). Regions that obtained the lowest proportion were the National Capital Region and the Autonomous Region in Muslim Mindanao (1% each).

Table 19 shows that among agencies of the government, the DILG got the highest allocation (27%), followed by the Local Government Support Fund and Department of Social Welfare and Development (DSWD) (13% each), the Department of Health and the Department of Education (7.1% each).

Figure 34. Regional Internal Revenue Allotment

NATIONAL URBAN DEVELOPMENT AND HOUSING FRAMEWORK
2017-2022

Regional Internal Revenue Allotment (IRA)

In Philippine Pesos (PHP), as of 2016*

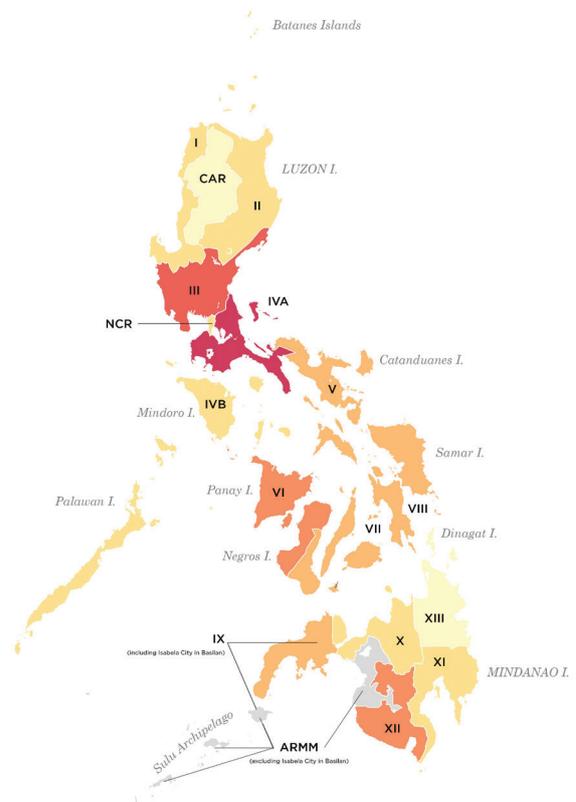
LEGEND

	Under 15,000,000,000 PHP
	15,000,000,000 to 19,999,999,999
	20,000,000,000 to 24,999,999,999
	25,000,000,000 to 29,999,999,999
	30,000,000,000 to 34,999,999,999
	35,000,000,000 and above
	No available data**

* According to the Department of Budget and Management (DBM).
** The IRA of the Autonomous Region in Muslim Mindanao (ARMM) has to be coursed through the offices of DBM in Regions IX, X, and XII.

DATA SOURCES
Department of Budget and Management (dbm.gov.ph)
Philippine GIS Clearinghouse (philgis.org) for administrative boundaries

CARTOGRAPHY
Created with support from United Nations Human Settlements Programme (UN-Habitat).



The rest of the agencies involved were allocated about less than 1% to 2% of the total allocation.

Issues and Opportunities

1. The government should strive for balanced economic development through appropriate strategies to promote forward and backward linkages between progressive and lagging/depressed regions/areas of the country, while recognizing the strategic advantages and core competencies of urban centers and their role in overall national and regional development.
2. The concept of sustainability dictates that the use of resources in each functional region must manifest in an equitable distribution of goods, so that every household in the community is able to provide for its immediate and future needs. This entails the participation of households in economic activities that generate their

income, which consequently provides them with a more significant access to the system. Economic growth, as a precondition for poverty reduction, should be inclusive.

3. The government should provide a responsive and investment-friendly environment. The participation of both the public and private sectors is necessary due to the limited public resources for economic development.
4. There is a need to diversify local economies and have a wide range of business ranging from micro to small, medium and large enterprises. Local entrepreneurship and sustainable livelihoods should also characterize the local economy, including the informal economy.
5. Mixed use urban development is key in promoting local economic development.

6. Adequate public investment in infrastructure development is key to facilitate vibrant businesses and communities in order to move goods, services, and people, as well as enhance connectivity and interconnectivity.

7. Maintaining and expanding a competitive workforce is key to a healthy economy.

8. Economic development should consider the protection of the environment.

4.8 FILIPINO CULTURE AND HERITAGE

Urbanization presents particular challenges for Filipino culture and heritage. The Philippines is one of the most culturally diverse countries in the world, with one estimate identifying 126 ethno-linguistic groups in the archipelago,¹⁶⁶ while another identifying 77 major ethno-linguistic groups, with 244 subgroups.¹⁶⁷ This diversity is the product of a cultural evolution driven by a geography defined by islands and mountain ranges, yet constantly enriched by periodic migrations within and into the archipelago. However, the processes of colonization, nation-building, globalization, and urbanization have both served to homogenize that diversity, while creating new pressures to assert that diversity.

4.8.1 Interaction between Natural Systems, Social, and Cultural Systems

Social and cultural systems are transformed by, and in turn transform, natural systems. Social and cultural systems may reflect a community's adaptation to a particular environment, and an attempt to render that environment more suitable to that community's needs. Moreover, the community may develop as part of that

Table 18: Allocation for Participatory Budgeting by Region, 2015¹⁶⁴

Region	Allocation (in pesos)	Percent
ARMM	313,920,544	1.5
CAR	962,500,000	4.6
CARAGA	1,004,369,000	4.8
NCR	250,645,076	1.2
Region I	1,607,604,669	7.7
Region II	1,162,421,400	5.6
Region III	1,627,870,230	7.8
Region IV-A	1,786,890,285	8.5
Region IV-B	965,000,000	4.6
Region V	1,695,958,801	8.1
Region VI	1,800,849,604	8.6
Region VII	1,899,128,400	9.1
Region VIII	1,871,717,821	9.0
Region IX	979,000,000	4.7
Region X	1,337,017,358	6.4
Region XI	761,000,000	3.6
Region XII	879,948,306	4.2
Total	20,905,841,494	100.0

Table 19: Allocation for Participatory Budgeting by Agency, 2015 (At Current Prices and 2000 Constant Prices)¹⁶⁵

Agency	Allocation (in pesos)	Percent
DA	4,328,284,600	20.7
DENR	322,508,496	1.5
DEPED	1,492,509,100	7.1
DILG	5,748,659,077	27.5
DOE	84,679,500	0.4
DOH	1,482,191,128	7.1
DOLE	443,277,842	2.1
DOT	350,041,330	1.7
DSWD	2,704,326,237	12.9
DTI	613,125,835	2.9
LGSF	2,828,954,614	13.5
NEA	102,716,888	0.5
NIA	107,200,200	0.5
TESDA	297,366,648	1.4
Total	20,905,841,494	100.0

¹⁶⁴ General Appropriations Act Fiscal Year 2015.

¹⁶⁵ General Appropriations Act Fiscal Year 2015.

¹⁶⁶ Robert B. Fox and Elizabeth Flory, *The Filipino People* (1974). Available at <http://ncca.gov.ph/about-culture-and-arts/culture-profile/e-books/>.

¹⁶⁷ Jesus T. Peralta, *Glimpses: Peoples of the Philippines* (2000). Available at <http://ncca.gov.ph/about-culture-and-arts/culture-profile/e-books/>.

culture a body of symbols and meanings for the interaction between itself and the environment. Over time, however, different factors—environmental, social, political, cultural, or economic—may transform the community, leading cultural and social systems to evolve in response to these new factors. Such transformations, however, may prove incompatible with the natural environment, requiring the intensive use of resources to manage the impact of human activity.

The settlement of the Marikina-Pasig river system, for instance, was likely driven not only by its nature as a verdant river valley. It was likely also driven by rich biodiversity of a varied landscape, with fields and mangroves, forested mountains to the northeast, an ocean to the west, and a freshwater lake to the east. The area was also linked by bodies of water to communities throughout the archipelago and the world. With a diversity of products from the mountains, mangroves, the bay, and the lake, the community thus developed a culture rooted in both agriculture, forestry, fishery, and trade. It was constantly under the threat of natural disasters, but periodic monsoon storms and volcanic eruptions also served to drive the ecological diversity of the area while shaping a culture both resilient and adaptive.

Over time, in the wake of colonization, urbanization and globalization, the area evolved into the political and economic center for the archipelago, and transformed a landscape and the people's social and cultural systems to one now ill-suited to its natural systems. In fact, these same natural systems are now seen as constraints to the expansion of the metropolis. And this is a pattern that is now being replicated throughout the country.

4.8.2 Filipino Social/Cultural Dynamics in Urbanization

The process of urban migration brings the breadth of Philippine cultural diversity into its key cities. Ethno-linguistic groups from across the archipelago find their way into urban centers for trade, education, and employment, with many individuals maintaining substantial ties to their home regions. Migrants to the cities travel back and forth to their home

regions during holidays, and those employed in the city support family members in the provinces. Most retain their ethno-linguistic identity even as they learn the language and practices of the dominant group in that city. On the other hand, the dominant group can both react to migrants by a process of "othering," or be enriched by cultural exchanges between groups. Urbanization thus can serve as a process of cultural exchange for migrants and residents, but can also result in division and conflict.

The Philippine city, however, finds itself not only at the crossroads of Filipinos, but also at the intersection of a global political economy. The flow of capital across borders finds its way to the Philippines in growth industries, such as business process outsourcing, leisure and tourism, and real estate development. Urban areas are evolving into 24-hour, round-the-clock organisms, linked by data and fiber to economies half a world away. Global trade has ensured a growing community of expatriates in urban areas, while expatriate Filipinos support the economy with their remittances to their relatives.

With intense exposure through media to cultural and social forms from across the world, Philippine urban areas are fully integrated into the global economy. But while global cultural exchanges can be an enriching process, it also can be homogenizing when faced by particular cultures that dominate the global political economy. Furthermore, globalization may create an urban culture that has much more in common with other cities in the world, than with that of its own hinterland, creating yet another fracture line for social conflict.

With their place at crossroads, the governance of urban areas requires the management of cultural diversity to conserve and protect cultural identity, as members of various ethno-linguistic groups, and as members of the Filipino nation itself. Cities are thus at the forefront of crafting a national identity, and are at the heart of the process of state-building. This mandate emanates from the Constitution itself, which enshrines the preservation and enrichment of the Philippine culture.¹⁶⁸ Our laws see culture as integral to



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our national identity,¹⁶⁹ and to that end, that the State is mandated to "protect, preserve, conserve, and promote the nation's cultural heritage, its property and histories, and the ethnicity of local communities... [in] a balanced atmosphere where the historic past coexists in harmony with modern society."¹⁷⁰

4.8.3 Culture and Sustainable Development

The conservation of culture draws value not only for its role in the process of state-building, but also in exploring its relationship with the environment, and developing a framework for sustainability.

As noted by the United Nations Educational, Scientific and Cultural Organization (UNESCO): "At a more fundamental level, cultural heritage is inherently relevant to the debate on sustainable development because it reflects and symbolizes the mutual adaptation over time between humans and their environments and how people relate to the earth and to the cosmos. It also reflects and symbolizes people's attitudes to and beliefs in other forms of life, their relationships to other human communities and within their own, and what they value in order to sustain and improve their quality of life. Seen from this angle, the cultural heritage demonstrates the inextricable link between cultural and biological diversity, which, rather than existing in separate and parallel realms, interact with and affect each

other in complex ways in a co-evolutionary process."¹⁷¹

Traditional cultural practices may be instructive in moving away from a carbon-intensive and toward a more sustainable economy, for instance. Crop rotation and the use of different plant varieties may allow for less use of industrial pesticides and fertilizer. Traditional building designs utilize shade, cross ventilation, and passive cooling to make structures comfortable even without air-conditioning. Communities are designed in a manner that do not rely on the combustion engine for mobility.

Finally, in an era of rapid social and cultural change, the conservation and stewardship of culture provides a source of stability for a community, a means of communicating shared values and preserving a sense of dignity.

Issues and Opportunities

1. Critically, in nurturing a national identity, Philippine cities must strive to preserve cultural heritage,¹⁷² in both its intangible¹⁷³ and tangible forms. Of the latter, built heritage¹⁷⁴ in particular is of crucial importance. Built heritage provides the setting or the context in which other aspects of cultural heritage can be taught, transmitted, and valued through the generations. However, urban areas are precisely caught in that challenge of finding a balance between the "historic past" and "modern society."

Social and cultural systems are transformed by, and in turn transform, natural systems. Social and cultural systems may reflect a community's adaptation to a particular environment.

¹⁶⁸ The Philippine Constitution, Article XIV, Sections 14, 15, 16 and 17.

¹⁶⁹ The Law Creating the National Commission for Culture and the Arts, Republic Act No. 7356, Section 3.

¹⁷⁰ Republic Act No. 10066 (2009): Sec. 2.

¹⁷¹ UNESCO, "Cultural Heritage and Sustainable Development: A Rationale for Engagement," accessed on July 30, 2018, <http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CLT/images/HeritageENG.pdf>.

¹⁷² Republic Act No. 10066 (2009):sec.3(l). "Cultural heritage" shall refer to the totality of cultural property preserved and developed through time and passed on to posterity.

2. Pressures from accommodating more people and generating economic activity often trump the process of finding one's identity. But it is here where traditional cultural practices may be instructive—in moving away from a carbon-intensive and toward a more sustainable economy and overall urban development.

3. Governance of urban areas requires the management of cultural diversity to conserve and protect cultural identity, as members of various ethno-linguistic groups, and as members of the Filipino nation itself. Cities are thus at the forefront of crafting a national identity, and are at the heart of the process of state-building.

4.9 URBAN GOVERNANCE

Governance is the manner and actions by which a government exercises its authority. Since the 1980s, the concept has expanded beyond the traditional dominant role of government to areas where NGOs and civil society groups partner with the establishment, or take on quasi-governmental roles, as well as where private investors may contract with government under public-private partnerships to speed up infrastructure and service provision.

The government recognizes and continues to address the central issues of the urban governance, especially at the local level. The complex requirements of a rapidly growing population, and consideration of multi-faceted issues like climate change and disasters demand an updated, more appropriate approach to governance, which may be currently lacking.

4.9.1 Urban Legislation and Policy

While there are many laws and policies that apply to urban areas in varying degrees, a few of the more commonly employed are cited here, including their relative strengths and weaknesses.

Numerous issues plague the full implementation of laws and policies, including overlapping mandates, lack of resources for implementation, and translation to local policies and programs. Specifically, the Local Government Code may need to be reformed, with emphasis on: (1) strengthening, rationalizing, and obligating the actions of Local Development Councils; (2) making zoning more appropriate to new urban problems; and (3) facilitating the use of betterment levies and other tools to generate revenue out of effectively implemented planned land uses.

Clarification of status for the Autonomous Region in Muslim Mindanao, and a possible Bangsamoro Autonomous Region. The failed bid to pass the Bangsamoro Basic Law during the last administration promises to be a resurgent territorial issue. The whole politico-economic package will probably have to be revisited and reworked, in order to plan for investments in key urban areas of southern and western Mindanao (e.g. Cotabato City), as well as to rationalize trade linkages with bordering Malaysia and Indonesia. Planning for these areas may or may not hinge on a proposed shift to a federal system of government.

4.9.2 Vertical and Horizontal Linkages

Figure 35 illustrates the general urban governance framework. The number of institutions involved, with overlapping mandates, often results in inefficient vertical-horizontal institutional coordination for

¹⁷³ Idem, sec. 3(x).

"Intangible cultural heritage" shall refer to the practices, representations, expressions, knowledge, and skills, as well as the instruments, objects, and artifacts associated therewith, that communities, groups, and individuals recognize as part of their cultural heritage, such as: (1) oral traditions, languages, and expressions; (2) performing arts; (3) social practices, rituals, and festive events; (4) knowledge and practices concerning nature and the universe; and (5) traditional craftsmanship.

¹⁷⁴ Ibid, sec. 3(f). "Built heritage" shall refer to architectural and engineering structures such as, but not limited to, bridges, government buildings, houses of ancestry, traditional dwellings, quartels, train stations, lighthouses, small ports, educational, technological, and industrial complexes, and their settings, and landscapes with notable historical and cultural significance.

planning, implementation, and operation of infrastructure and service.¹⁷⁵

Sectoral and area-based planning are incongruent. While local priorities are area-based, national priorities are sector-based. Large, strategic projects identified by LGUs often have little chance of being implemented because they have no access to national funds that get allocated through the sectoral departments or agencies. Critical problems are trans-boundary, but programs and projects aimed at them reckon with a fragmented implementation structure, composed of politically independent cities. Coordinated implementation has been less than desirable even in delineated metropolitan areas.

4.9.3 Decentralization

The two-decades-long promulgation of the Local Government Code continues to show that LGUs alone may be able to handle many, but not always all, the responsibilities and duties that result from decentralization. Even if they could do so, in some cases, it is still more practical to either work together formally with adjacent, peer LGUs, or to allow better-equipped national government agency intervention where economies of scale might be more efficient.

BOX 22. WHAT IS GOVERNANCE?

UN-Habitat has a similar definition of governance: urban governance consists of the “many ways that institutions and individuals organize the day-to-day management of a city, and the processes used for realizing the short term and long-term agenda of a city’s development...it is the software that enables urban hardware to function.” (Habitat III: The Philippine National Report, October 2016)

Although the decentralization process can be deemed a success, the lack of effective urban governance mechanisms, particularly for regional-scale infrastructure projects involving inter-jurisdictional cooperation, has resulted in negative impacts on economic competitiveness, the environment, and the delivery of reliable, affordable, and resilient urban services.⁷⁶

Decentralization has also become a burden for urban planning, with more than 1,500 independent planning units, not counting the number of barangays that also demand development planning. With each LGU having its local chief executive, the risk of incongruent or conflicting development directions is heightened. The Housing and Land Use Regulatory Board (HLURB) and DILG are often constrained from imposing regularity and harmonization with higher level plans due to lack of technical and financial resources.

In order to properly and efficiently govern the Philippine territory, and in particular, urban space, it is necessary to have physical presence of government units wherever there are substantial communities of citizens. In most cases, this presence essentially consists of two cooperative entities: first, a local government that is representative of the majority of the community and responsible for the welfare, protection, and development of all citizens within its jurisdiction; and second, appropriate satellites or branches of national government agencies that extend nationwide programs, projects, assistance, and services to the LGU and its constituents.

4.9.4 Urban Land Management

LGUs are tasked with the proper management of land resources for public interest, with land use planning and zoning as the primary modes of intervention. Most LGUs, however, do not intervene with land markets and are largely limited to reviewing and approving

¹⁷⁵ UN-Habitat, Habitat III: Philippine National Report (2016).

¹⁷⁶ Ibid.

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Table 20: Key Laws that Form the Philippine Urban Governance Framework

P.D. 1096 of 1977	Codifies all basic building regulations	Does not contemplate newer materials and technologies	Expand and enhance for Green Building, etc.
B.P.220 of 1982	Economic and socialized housing defined, etc.	Short text, could benefit from elaboration on dimension range, cost, and affordability, presently pegged at “30% of household income, as set by the National Economic and Development Authority” (Section 2)	Revisit and refine to detail definitions
P.D.957 of 1976	Regulates subdivision building and specifies visitorial powers for inspectors	Does not yet comprehend recent advancement in condominium construction and is not particularly pro-poor or inclusive in design or cost	Enhance/expand to regulate boom in condominium development and add mechanisms for more inclusive costing, or options for donation/ government buy-in, or socialized components.
R.A.7160 of 1991	Decentralizes power to LGUs and sets guidelines. Elevates local authority	Has a one-size-fits-all approach and causes LGUs to compete; as well as it is vague in some planning terms	Consider federal or metropolitan forms, plus LGU qualifications for upgrade; Department of the Interior and Local Government training should emphasize urban governance
R.A.7279 of 1992	Provides a roadmap and rules for housing the poor	May make private sector owners uneasy.	Expand in response to complex urban poor issues
R.A.7835 of 1994	Unifies housing finance under the Social Housing Finance Corporation	May be narrowly concerned with government financing	Rationalize vs. potential non-government financing

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R.A.9003 of 2000	Requires solid waste management systems, especially for cities	May not be practical for poorer, less technical LGUs	Revise based on progress of implementation. Propose alternative methods that are more acceptable, affordable, and implementable by LGUs
R.A. 9729 of 2009	Consistent in language and structure with international frameworks on climate change	Requires much climate change-related work from LGUs, when broader scientific studies may not yet be ready	Clarify amount/level of climate change mainstreaming needed, as this may vary depending on spatial level and location.
R.A.10066 of 2009	Unifies laws on heritage conservation, even in cities	Does not rationalize strongly some items like urban vistas	Strengthen mechanisms for aiding the conservation and rehabilitation of landscapes and seascapes
R.A. 10121 of 2010	Good integration of disaster risk reduction and management at all levels of government, and sets up mechanisms for humanitarian assistance	Does not yet comprehend the quick and massive external humanitarian assistance interface, and civil society interventions and funds	May be refined more to specify interface mechanisms with external aid and accountabilities for donated funds

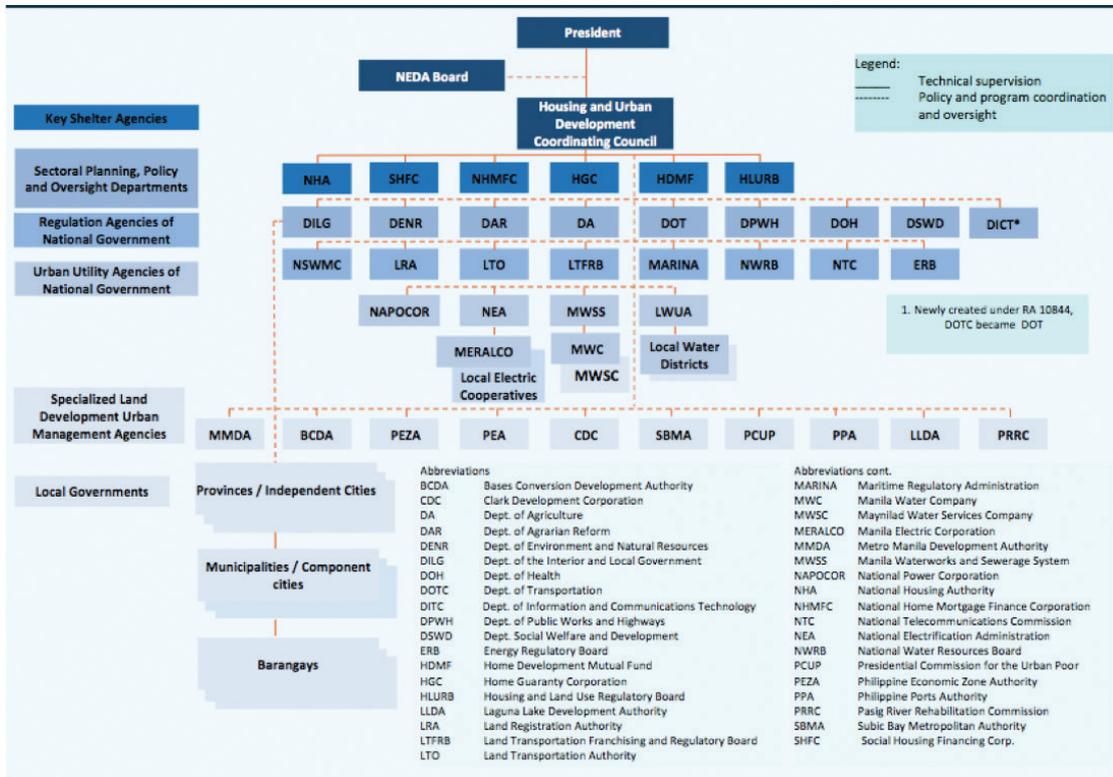
land development projects when these are proposed by private land owners and/or developers.

Land administration—including titling, registration, and transfers—remains a national government function performed by different agencies. The classification of alienable and disposable lands and public lands is under the Department of Environment and Natural Resources. Other national agencies such as the Department of Agriculture, the Department of Agrarian Reform, the Department of Trade and Industry, and the Department of Transportation all have land management-related functions. These agencies have established frameworks backed up by national

laws that safeguard the rights of the poor and vulnerable groups. The problem, however, is their implementation on the ground, because of the lack of personnel and the difficulties inherent to an archipelagic country. To address this situation, these agencies have devolved some of their functions or have entered into “co-management” agreements with LGUs.

Because of the LGUs’ limited level of involvement in land management, many of them have not developed the capacity for it and rely primarily on the action of the national agencies. This has resulted in the lack of innovative urban land development approaches, such as the pooling of individually owned properties for the provision of

Figure 35. The General Urban Governance Framework



socialized housing or the revitalization of blighted downtown areas.

The Philippines has been trying to improve its overall system of land management and administration through the Land Administration and Management Program. This has largely focused on streamlining processes of concerned national agencies, particularly on updating the titling of properties. A follow-up program is being prepared, focusing on LGUs and land information in relation to real estate taxation. It is not yet clear whether this program will cover other aspects of land management at the local level.

The overlapping land administration functions and gaps in land information have also resulted in land use conflicts, especially of indigenous peoples' territories vis-à-vis expanding urban areas, and illegal titling of protected areas.

Given the situation, much of the actual development tends to be driven by the private sector. Most cities abet this because of the additional revenue that they derive from it, without realizing that such development may be creating other and more serious kinds of problems.

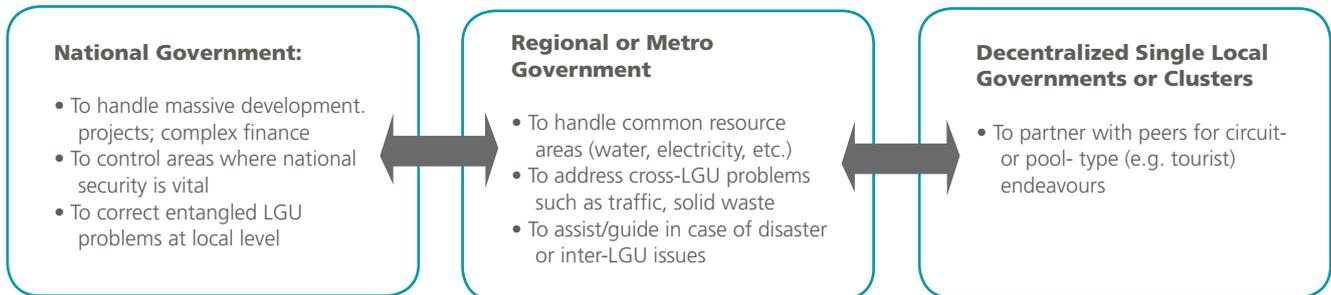
4.9.5 Technical Capacity

A capacity needs assessment conducted indicated an overall weakness for development planning, management, and enforcement. This can be traced to lingering, unaddressed policy issues affecting institutional structures, inter-governmental and multilevel governance relationships, management and technical capacity, as well as unmet public and private financing needs.¹⁷⁷

While many LGUs have initiated significant improvements in their management systems,

¹⁷⁷ UN-Habitat, Habitat III: Philippine National Report (2016).

Figure 36. Government Decentralization Map



most do not maintain regularly-updated management data bases, and continue to be challenged in employing planning instruments to guide urban development, namely the Comprehensive Land Use Plan The (CLUP), the Zoning Ordinance, and the Comprehensive Development Plan (CDP).

The clamor for capacity-building continues to be echoed by stakeholders—especially practitioners in the Visayas and Mindanao, where basic methods of planning and urban management need more extensive dissemination.¹⁷⁸ Only concrete results and outcomes on the ground will testify to the effectiveness of such training.

4.9.6 Leadership and Good Governance

In some cases, the scaling up and replication of successful urban plans and programs are constrained by changes in administration, especially when opposing or different political parties succeed each other. Long-term plans and even staff are dropped and replaced by new ones, compromising the full implementation of programs.

In this aspect, LGUs must rely on good leadership and a reliable government machinery to bring about stability, social inclusiveness, and fair distribution of resources

over longer periods of time, in order to successfully enforce public policy.

While agencies such as the DILG try to incentivize LGU development through common reporting systems and the “Seal of Good Local Governance,”¹⁷⁹ these mechanisms cannot fully communicate the actual conditions on the ground. Ground validation is necessary to see if development has reached the most marginalized citizens, as well as the most remote areas. Simultaneously, good governance on the ground is expected to manifest the principle of participation and empowerment of stakeholders, who logically have the greatest interest in sustaining administrative reforms and innovations.

Increasingly, the need to ensure public safety and security has become more apparent. It is the task of the leaders to ensure that every citizen is reasonably able to live, work, and play free from insecurities, as well as physical, sociological, and psychological harms that may hinder personal growth and healthy interaction in the urban environment. While the government should neither be totalitarian in monitoring its citizens nor overprotective, its benevolent and corrective presence should be evident enough to discourage injustice, especially by agents from among its own ranks.

¹⁷⁸ NUDHF stakeholder consultations, 2016.

¹⁷⁹ This has six assessment criteria: (i) good financial housekeeping (formerly from the Seal of Good Housekeeping); (ii) disaster preparedness; (iii) social protection; (iv) business friendliness and competitiveness; (v) peace and order; and (vi) environmental management.

4.9.7 Assertion of Sovereignty and Culture

In recent years, due to shifts in international geopolitics and the reality of neighboring countries' growing urban populations' demand for land and water resources, the issue of territorial ownership has come to the fore, even for the archipelagic Philippines. Palawan and the Kalayaan islands and Zambales are currently the most immediately affected by international territorial disputes.

Human settlements—especially cities, with their expanding populations—are thus not only engines of growth, but are potentially bastions of dynamic civilian presence, particularly in the frontier provinces. If managed properly, they become signifiers of sovereignty and can be planned, designed, and managed to express a unique Filipino identity over all lands and territorial waters. As part of urban development policy, it may be practical for sociopolitical reasons to look into strengthening civilian presence and developing core infrastructure in those areas, along with other frontier area LGUs, namely Sulu, Mindoro, Batangas, Bataan, La Union, Ilocos Sur, and Ilocos Norte.

That is not to say however, that there is no more internal spatio-political dissent, but rather that such internal contestations between LGUs can be resolved technically and politically over time, and would better be subordinated to larger pan-territorial concerns, like resilience to adverse effects of climate change, effectiveness of fine-tuned territorial control, and core-periphery economic linkages—with all these issues finding their most diverse and intense manifestation in Philippine cities. Some particular governance issues are more pertinent to specific macro-regions, like Luzon, the Visayas, or Mindanao, but nevertheless, strong, reliable, transparent, accountable, and pro-poor government should be consistently present in all parts of the archipelago.

Issues and Opportunities

1. Effective urban governance must be based on a sturdy and consistent



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framework of laws. When working through and with the government, one has to always heed the enabling environment created by law—as well as the constraints, overlaps, and gaps in national laws, local ordinances, and agency policies that should sooner or later be reconciled, revised, or repealed. Narrow interpretation of the law may sometimes constrict action or promote “turfing” between and among national government agencies and LGUs. Instead, the strategy should be one of complementarity and constructive overlap, in situations where people “fall between the cracks,” or where problems straddle jurisdictional boundaries, such as traffic and crime.

2. Decentralization is ideal for solving many, but not all urban challenges. While decentralization shall continue as a dominant paradigm in the Philippines for achieving sustainable and inclusive cities, it must be complemented by selective aggrupation, and “recentralization” measures where obviously necessary, whether these are formal metropolitan areas or more loosely associated mutual-aid groups that come together to face natural disasters or cross-border problems like flooding, traffic, urban crimes, and waste management.

CITIES, WITH THEIR EXPANDING POPULATIONS, are not only engines of growth, but are potentially bastions of dynamic civilian presence.

3. Good urban governance may mean that the national leaders shall have to intervene forcefully but surgically in LGUs where growth has spiraled out of control, or where basic public welfare needs are not being addressed.

4. Everyday safety, mutual respect for fellow citizens' rights, and human security reflect good governance. Excellent urban governance will ensure safety and the protection of human rights for all of the residents of a city, as well as transients who are visiting and engaging in business or tourism, among other purposes.

5. The government and its partners, when exerting the right amount of regulation—neither too authoritarian nor too libertarian—enable growth by providing a safe, predictable, and democratic milieu where constituents can express their creativity, practice entrepreneurship, and engage sociably with most fellow citizens.

6. Resilient cities and municipalities are the result of forward-looking governments that anticipate natural and man-made disasters, and thus make possible resilient spatial structuring, including forms of agglomeration that build joint durability.

7. Inclusive settlements can be designed by governments to ensure adequate public space, free access to information, sociocultural balance, and safety. Such inclusiveness is not accidental; it is promoted, protected, and especially manifested in public spaces and in egalitarian access. These are the marks of government action to ensure spatial justice and to discourage segregation that blocks gregarious, enriching interaction.

4.10 THE ASSOCIATION OF SOUTHEAST ASIAN NATIONS (ASEAN) INTEGRATION

Pursuant to the Declaration of ASEAN Concord II signed in Bali, Indonesia on October 7, 2003, the member states of the ASEAN committed to the establishment of the ASEAN Community, including the ASEAN Economic Community by 2020,¹⁸⁰ as an international common-market and geospatial region that would promote the shared interests of its members, and constitute a coherent production base able to provide competitively to both ASEAN and the global community. This followed logically from the 1992 Treaty creating the ASEAN Free Trade Area, as well as other prior agreements.

Although ASEAN members have not delivered specifically on all politico-administrative and legal changes committed by 2015, the initial year of integration, they have made significant advances in promoting common understanding and mass appreciation that the respective nations' interests are indeed served by the proposed community.¹⁸¹ As for its own commitments, the Philippines substantially brought down all tariffs to 0%, per Executive Order 850 of 2009, except for a very short list of "sensitive" products that include some types of rice and sugar, which still need a level of government trade regulation.¹⁸²

Still somewhat distant from the achievements and degree of system-interopability of its predecessor, the European Union, the ASEAN Community shall continue to emulate some functional aspects of the former, in order to adopt best practices from successful inter-state rapprochement elsewhere in the world.

It is in this light that the Philippines must consider what structural and procedural changes it must undertake in its established system, in order to ease the transition to a common market that will most probably provide significant economic returns.

¹⁸⁰ The ASEAN Secretariat, *The ASEAN Economic Community Blueprint* (Jakarta, 2008).

¹⁸¹ Basu Das Sanchita, Menon Jayant, Severino Rodolfo, and Lal Shrestha ed., *The ASEAN Economic Community: A Work in Progress* (2013).

¹⁸² Medalla, 2012.

Although ASEAN Integration prioritizes reforms in trade policy and legal safeguards to promote economic networking first, spatial preparations that manifest as physical changes in key cities will also take place in the next half decade.

Table 21: Snapshot of Tradables and Potential Relation of ASEAN States with the Philippines¹⁸³

ASEAN Member State	Prime Commodities	Natural, Built, or Human Endowments	Possible Relation to the Philippines
Brunei Darussalam	petroleum, natural gas	highly educated workforce	employer of skilled labor
Cambodia	tourism, garments, rice, corn, construction	mineral reserves and high tourism potential	importer of skilled labor, mineral source
Indonesia	petroleum, natural gas, rubber, palm oil, textiles	large labor force, much land area	agricultural supplier, importer of labor
Laos	mining, timber, vegetables	mining reserves, water infrastructure	importer of skilled labor; agri supplier
Malaysia	rubber, petroleum, palm oil, natural gas, pharmaceuticals	high standard of physical and IT infrastructure	employer of skilled labor
Myanmar	wood products, rice, beans	agricultural raw materials	importer of products
Philippines	electronics, sugarcane, bananas, coconuts, garments	English-speaking workers	*
Singapore	IT, advanced financial and managerial services	highly-educated workforce	employer of skilled labor
Thailand	tourism, rice, textiles	central location	agricultural supplier
Vietnam	rice, coffee, food processing	long coastline	agricultural supplier

¹⁸³ The Central Intelligence Agency, "CIA World Factbook," accessed on March 18, 2016, <https://www.cia.gov/library/publications/the-world-factbook/>.

CONTEXT AND CRITIQUE: THE FILIPINO URBAN NARRATIVE

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PHILIPPINE CITIES, ESPECIALLY ALONG COASTLINES and flatlands, must be well-managed gateways and physical links to the common market of the ASEAN.

Although the source documents for ASEAN Integration unequivocally prioritize reforms in trade policy and legal safeguards to promote economic networking first, it may be inferred implicitly that some spatial preparations that manifest as physical changes in key cities will also take place in the next half decade. While urban development and housing are not emphasized on the “to-do” list (the 2009 Roadmap, and other documents) for ASEAN integration, any astute planner can readily foresee that some urgent actions are needed on the ground. Urban development with a view towards facilitating trade must be considered.

It is important to appreciate beforehand the regional-spatial context that the Philippines

will be occupying in relation to its neighboring states. At least three pre-existing regional assemblages are likely to lead as sub-regional zones of productivity and/or closer socioeconomic linkage: the Indonesia-Malaysia-Singapore Growth Triangle, the Indonesia-Malaysia-Thailand Growth Triangle, and the Brunei Darussalam-Indonesia-Malaysia-Philippines East Asia Growth Area. Of these three, the Brunei Darussalam-Indonesia-Malaysia-Philippines East Asia Growth Area is geographically the Philippines’ closest land linkage to its ASEAN neighbors, even if the area of envisioned growth is still peripheral and remote from the respective states’ capitals. Hence, the Philippines has historically acquired less investments, especially because of the ongoing separatist insurgency, sporadic terrorist activity, and a latent territorial claim against Malaysia in the Brunei Darussalam-Indonesia-Malaysia-Philippines East Asia Growth Area sub-region. Nevertheless, because of its proximity to inter-island linkages of the other states and its historic importance as a center of seaborne trade, this area’s potential remains immense, as long as the peace and order issues are resolved.

Apart from the abovementioned region, the Philippines has strategic interests in the West Philippine Sea, not only because this is a much used sea route for international trade with partners such as Japan, China, and South Korea, but also because it is the most direct route to access ASEAN countries such as Vietnam, Cambodia, and Thailand, by sea or by air, duly noting that at least two of those countries continue to provide the rice supplies for the Philippines.

One unexplored potential is the Philippines’ location on the northeastern rim of the ASEAN area, giving it relatively unrestricted access to fishing grounds and insular trade partners in the Pacific. There may be an opportunity here for certain cities to act as transshipment and intermediate manufacturing areas for goods that cross between the western and eastern hemispheres, or that come in from several smaller Pacific states en route to the

rest of Southeast Asia, to include both ASEAN members, and East Timor.

Issues and Opportunities

1. The opening and integration of ASEAN markets can be seen as a call for wider inclusiveness and integration.
2. The multi-faceted participation of the Philippines in a unified ASEAN regional market should be welcomed in so far as it: (1) fosters inclusive development by allowing mobility of goods, peoples, and ideas; (2) promotes resilience by encouraging learning about disaster-response and best practices in building back better; (3) integrates urban systems across a pan-regional and international scale; (4) enhances the accessibility of urban areas as platforms, at least for trade; and (5) supports participation and empowerment in general. Any governmental initiatives of the Philippines to engage ASEAN productively should also be monitored by the concerned agencies and stakeholders, in order to take advantage of developmental opportunities that present themselves.
3. The Philippine cities, especially along coastlines and flatlands, must be well-managed gateways and physical links to the common market of ASEAN. Regional economic integration contemplated in the ASEAN ConCORDS and other related documents obviously takes place in markets that are at least monitored, if not lightly regulated by state agencies. In this regard, it is certain that selected Philippine cities, which may or may not currently be vibrant markets, will absorb the bulk of import/export transactions and knowledge exchange. Hence, it is important to plan for and implement support infrastructure in these cities, as well as means for sharing and spill-over of the benefits to cities and municipalities in the hinterland.

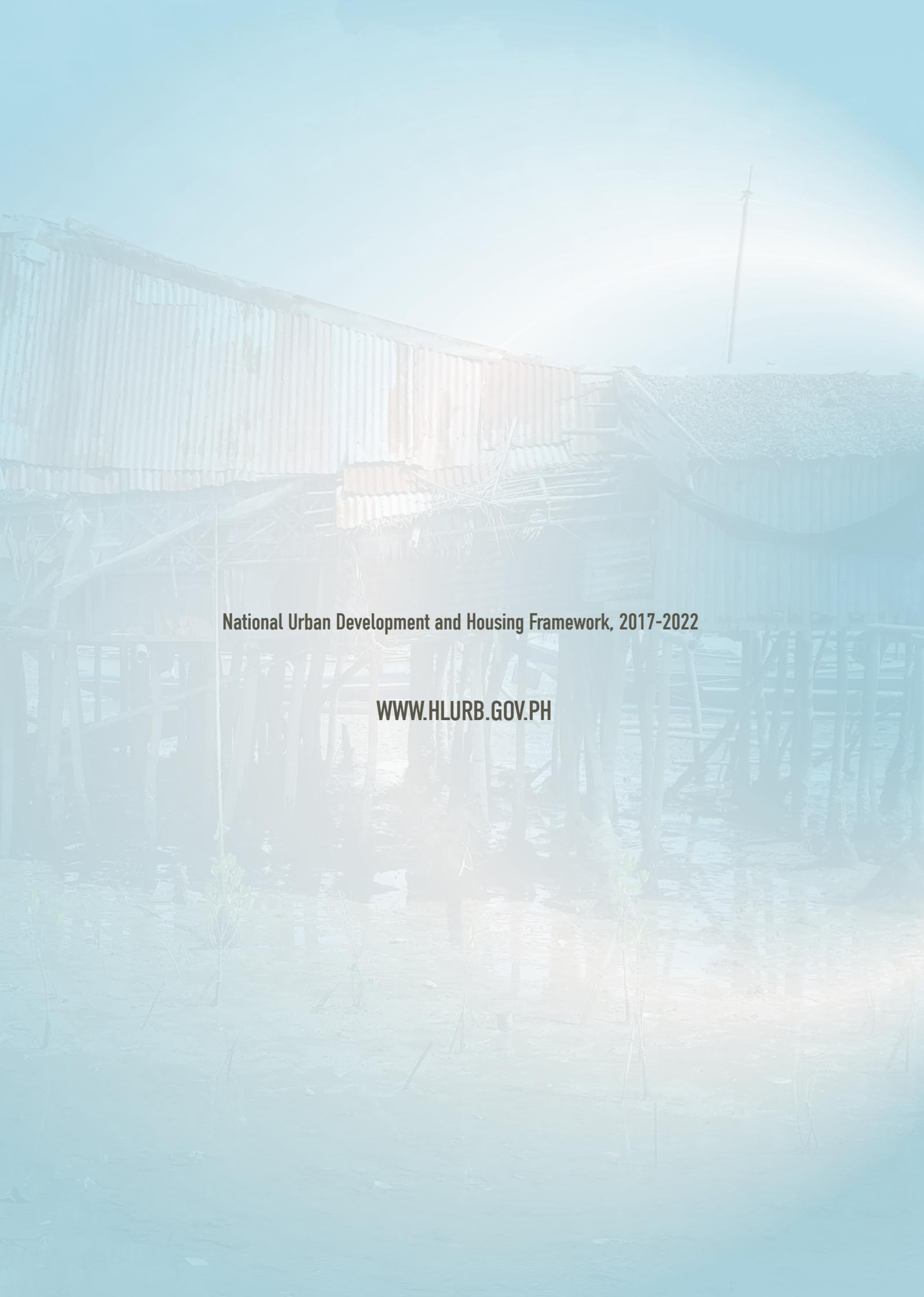
4. The net gains, losses, and dominant directions of the flow of goods, services and information will depend much on the “soft” component of cities. Apart from the necessary infrastructure preparations, this includes other elements such as skilled workers, industrial culture, and government’s ability to sustain an investor/locator-friendly operating environment in the physical and administrative senses. At the same time, the influx of foreign workers, with their own knowledge, skills, habits, and needs, will become a governance issue that must be prepared for at both the national and local levels.

5. Any integration into a wider, more complex market requires corresponding infrastructure and institutional modifications, reforms, and investments by the government. The full benefits of integration to a wider market cannot be enjoyed unless sufficient preparations are made, especially for large-scale, high-risk, and agglomerative projects that only the government might initially invest in, because of foreseeable merit.

6. Infrastructure as well as institutional reform will be needed, especially to remove what the ASEAN Integration commentaries call “non-trade” barriers, which include cost of doing business (e.g. raised by corruption and lack of technological capability), and lack of transparency, reliability, and accountability in dealing with institutions.

7. Environmental integrity and the resilience of the cultural fabric remain just as important as worth protection, even as the Philippines opens up to the flood of goods, services, and ideas from its Southeast Asian neighbors. Planning should not just prepare for economic impacts, but for social and institutional integration down the line.



The image shows a slum area with several makeshift buildings. The buildings are constructed from corrugated metal sheets and wooden poles, and are elevated on stilts. The scene is set in a sandy, open area with some sparse vegetation. The entire image is overlaid with a light blue tint. The text "National Urban Development and Housing Framework, 2017-2022" is centered in the middle of the image.

National Urban Development and Housing Framework, 2017-2022

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