

DRR-CCA Enhanced
CENTRAL LUZON
Regional Physical
Framework Plan
2020-2040



Regional Development Council III – Regional Land Use Committee

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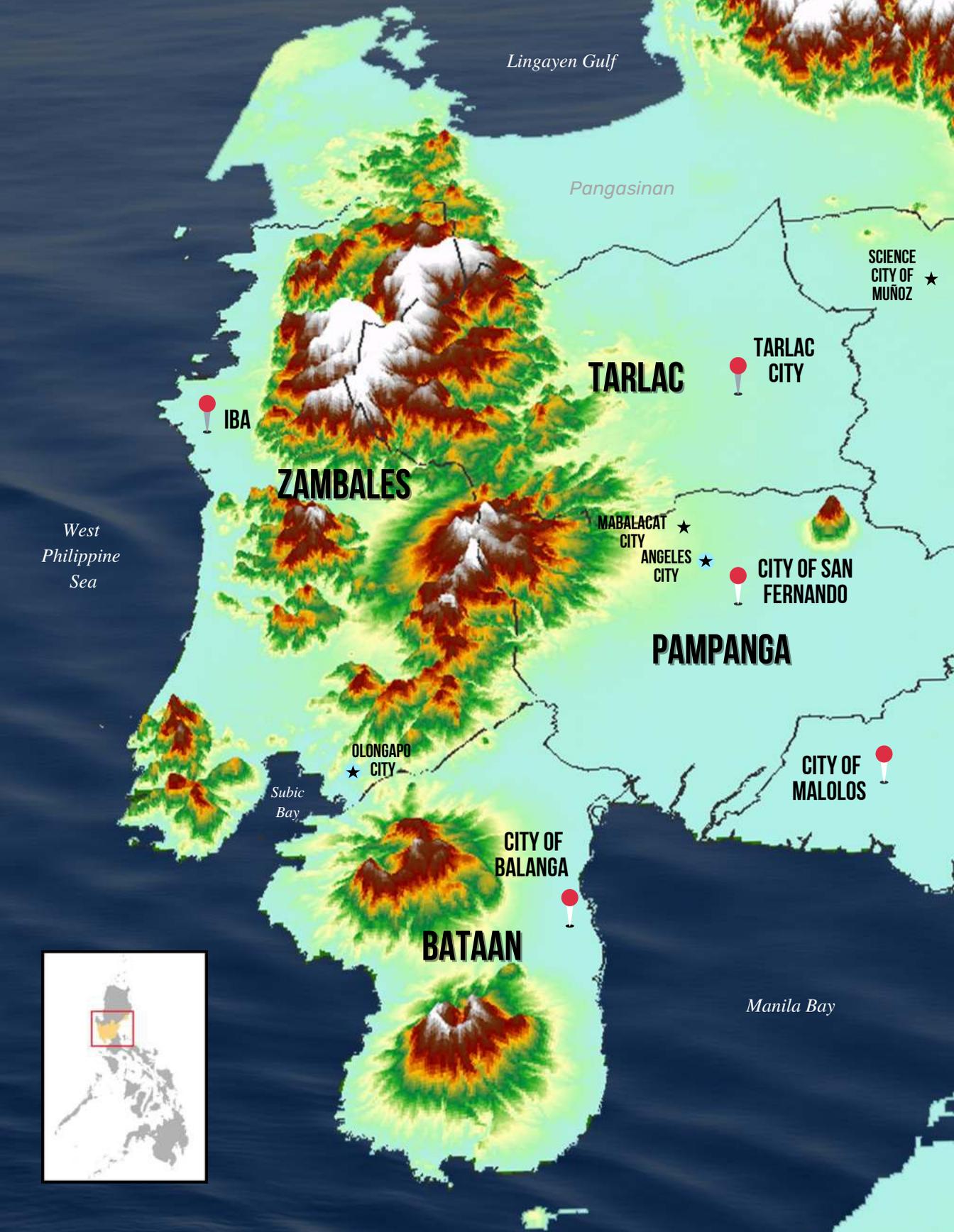
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Lingayen Gulf

Pangasinan

SCIENCE CITY OF MUÑOZ ★

TARLAC CITY

TARLAC

IBA

ZAMBALES

MABALACAT CITY ★

ANGELES CITY ★

CITY OF SAN FERNANDO

PAMPANGA

West Philippine Sea

CITY OF MALOLOS

OLONGAPO CITY ★

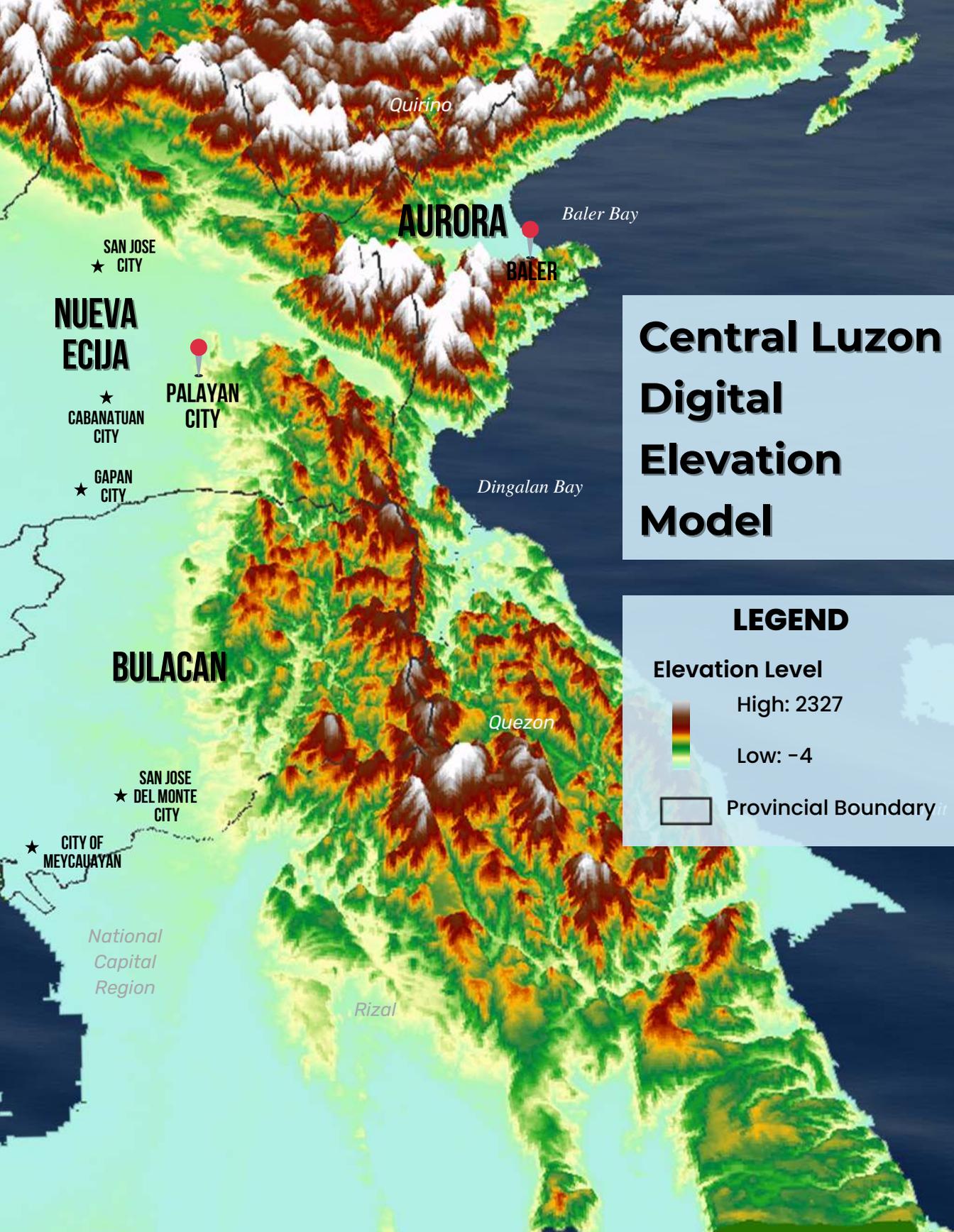
Subic Bay

CITY OF BALANGA

BATAAN

Manila Bay





Central Luzon Digital Elevation Model

LEGEND

Elevation Level

High: 2327

Low: -4

Provincial Boundary



*A snapshot of City of San Jose Del Monte in
Bulacan - the most populous city in Central Luzon*

GOOGLE MAP PICTURE

Google

Imagery ©2022 Google, Imagery ©2022 CNES /



01

CENTRAL LUZON AT A GLANCE

2040 VISION



AGRI-INDUSTRIAL HEARTLAND

Productive agriculture
Viable employment hub
Increased investments

Photo Source: Clark International Airport



GLOBAL GATEWAY

Seamless interconnectivity
Established road networks, railways,
domestic and international airports



BALANCED ECOSYSTEMS

Protected resources
Resilient and sustainable
Environmentally sound technologies

Photo Source: Department of Tourism 3



QUALITY OF LIFE

Comfortable
Productive populace
Well-planned communities

CENTRAL LUZON

A vibrant agri-industrial heartland and global gateway supported by balanced ecosystems where people enjoy a comfortable quality of life.

AGRI-INDUSTRIAL HEARTLAND

Central Luzon will be a major contributor to the country's food production system. It will produce a wide variety of crops, livestock, and fishery products using modern farming technologies in a bid to promote diversification, improve land productivity, increase profitability, and enhance overall resilience and competitiveness.

GLOBAL GATEWAY

Central Luzon will be host to strategic connectivity infrastructures that will link the region's populace, goods and services with the global economy.

Central Luzon will likewise prime itself as the doorstep to many amazing journeys. Backed by regional carriers and legacy airlines, the region will become an important entryway to major cities and financial centers in the Asia Pacific region and the rest of the world.

BALANCED ECOSYSTEMS

As population expands and agro-industrial development accelerates, the economy of Central Luzon will be supported by a natural environment where people, animals, plants and more coexist harmoniously. It will be sustained by a diverse and resilient habitat that will buoy the interdependence of the biotic and abiotic elements.

QUALITY OF LIFE

In 2040, Central Luzon will see a populace enjoying a comfortable quality of life as a result of continuous socioeconomic progress founded on inclusive development reforms and positive change in the region's demographic structure. It will witness individuals and households having the ability to meet their basic needs such as food, shelter, education, health, and protection.



THE PEOPLE

POPULATION STATISTICS

2020 POPULATION

12,422,172

POPULATION DENSITY

560 persons per sq km

ANNUAL AVERAGE GROWTH RATE

2.05%

2010 to 2020

DOUBLING TIME

34 years

2054

PROJECTED POPULATION SIZE IN 2040

19,363,984

*Computed based on the 2010-2020 growth rate

Source of Data: PSA 2020 Census on Population and Housing (CPH)

MOST POPULOUS PROVINCES

BULACAN

3.7 M

PAMPANGA

2.4 M

NUEVA ECIJA

2.3 M

MOST POPULOUS CITIES/MUNICIPALITIES

SAN JOSE DEL MONTE

Bulacan

615 K

ANGELES CITY

Pampanga

462 K

TARLAC CITY

Tarlac

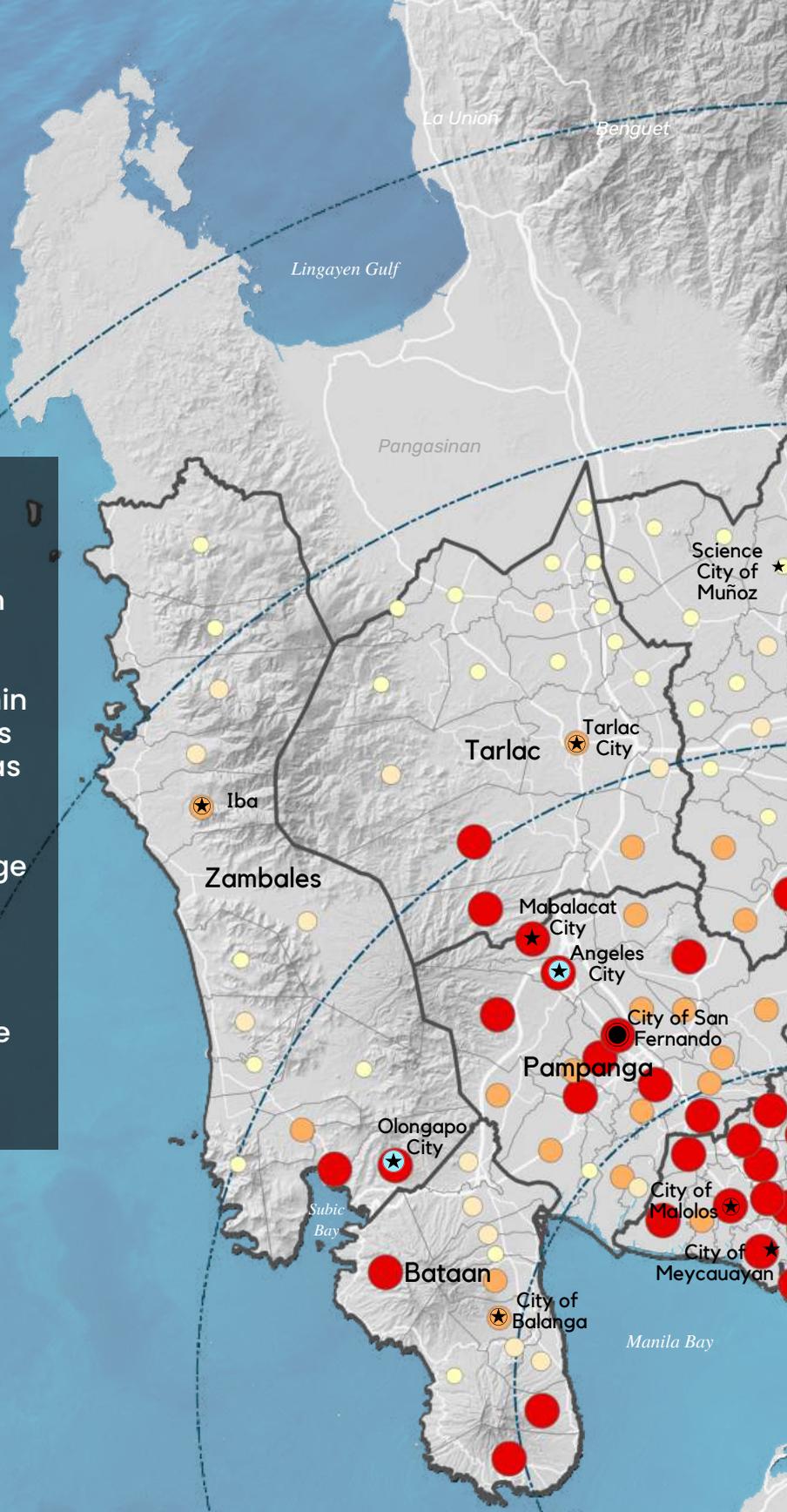
385 K

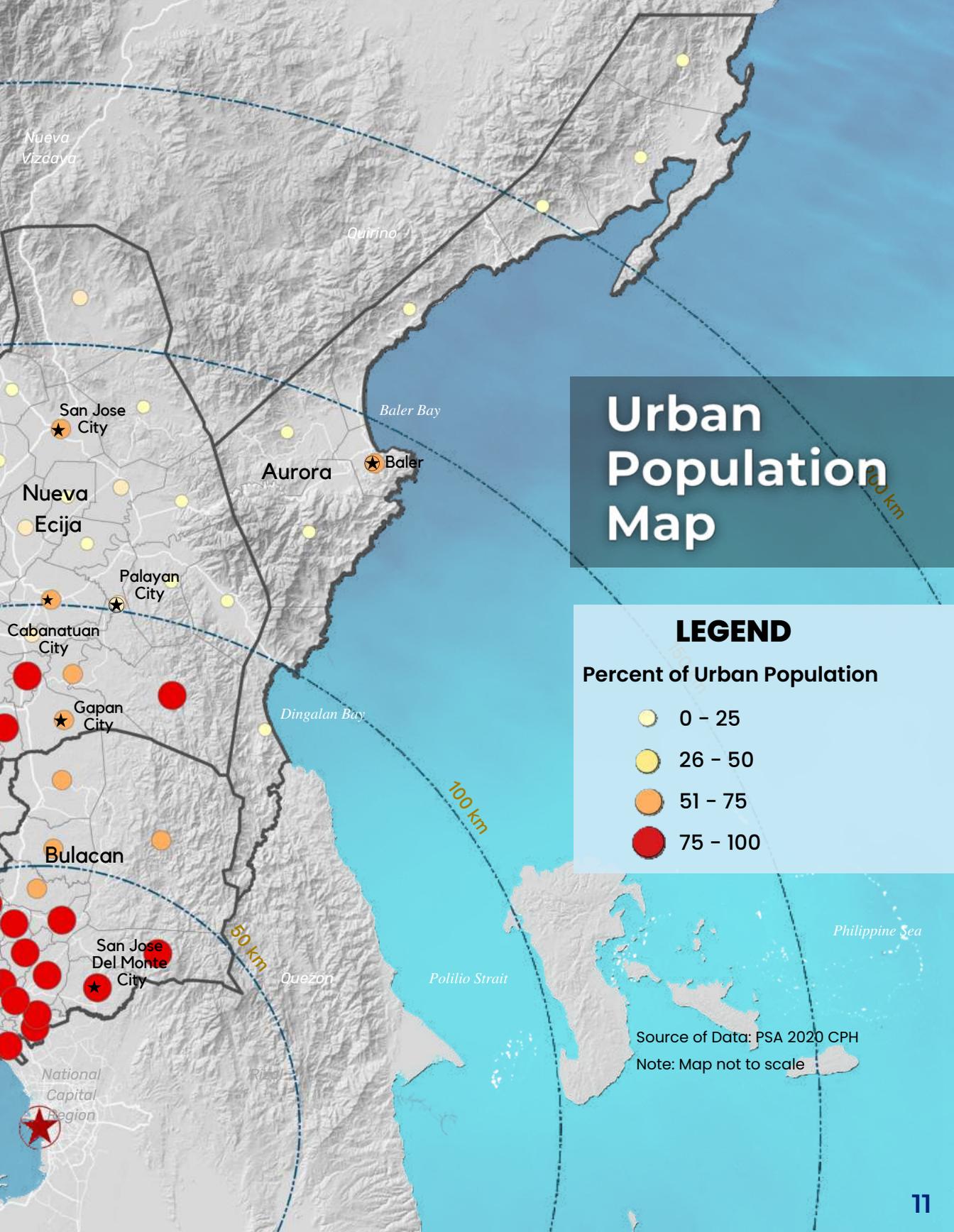


Central Luzon's population is moving further towards urbanization as shown in the increasing percentage of urban population. Areas within the 50 to 100 km radius of Metro Manila such as Bulacan, Pampanga, and Bataan tend to have higher percentage of urban population.

Of the 130 cities and municipalities, more than half of these have more than 50 percent urban population.

West
Philippine
Sea





Urban Population Map

LEGEND

Percent of Urban Population

- 0 - 25
- 26 - 50
- 51 - 75
- 75 - 100

Source of Data: PSA 2020 CPH

Note: Map not to scale

A photograph of a woman with dark curly hair, wearing a black dress with a vibrant floral pattern, leaning forward to examine the hands of a young child with curly hair. They are in a crowded outdoor setting, possibly a community event or market. Other people, including a child in a blue cap, are visible in the background, slightly out of focus. The overall lighting is natural and bright.

THE PEOPLE

Indigenous Peoples in Central Luzon, such as the Aeta tribe of Floridablanca, Pampanga, are among the most vulnerable groups to land use changes in the region.

POVERTY SITUATION

11.4% vs 13.7%
in 2009

Poverty Incidence
(among population)
in 2021

2.6% vs 4.3%
in 2009

Subsistence Incidence
(among population)
in 2021

18.8% vs 21.6%
in 2009

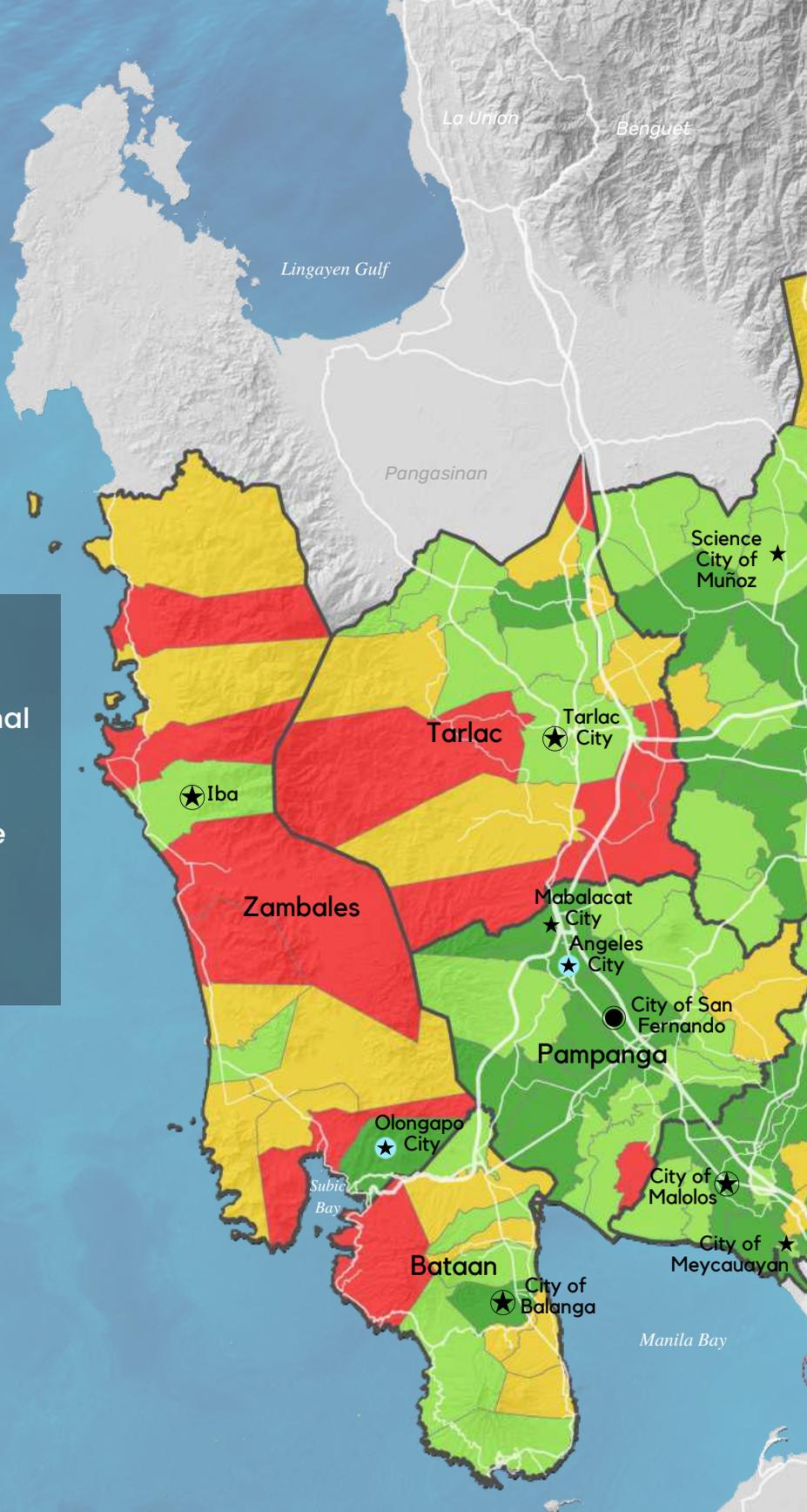
Income Gap
in 2021

In the 2018 statistics, the Region posted the second lowest poverty incidence in the country. However, with the socio-economic impact brought about by the pandemic, this ranking plummeted by two notches in 2021.

Source of Data: PSA Full Year Poverty Statistics



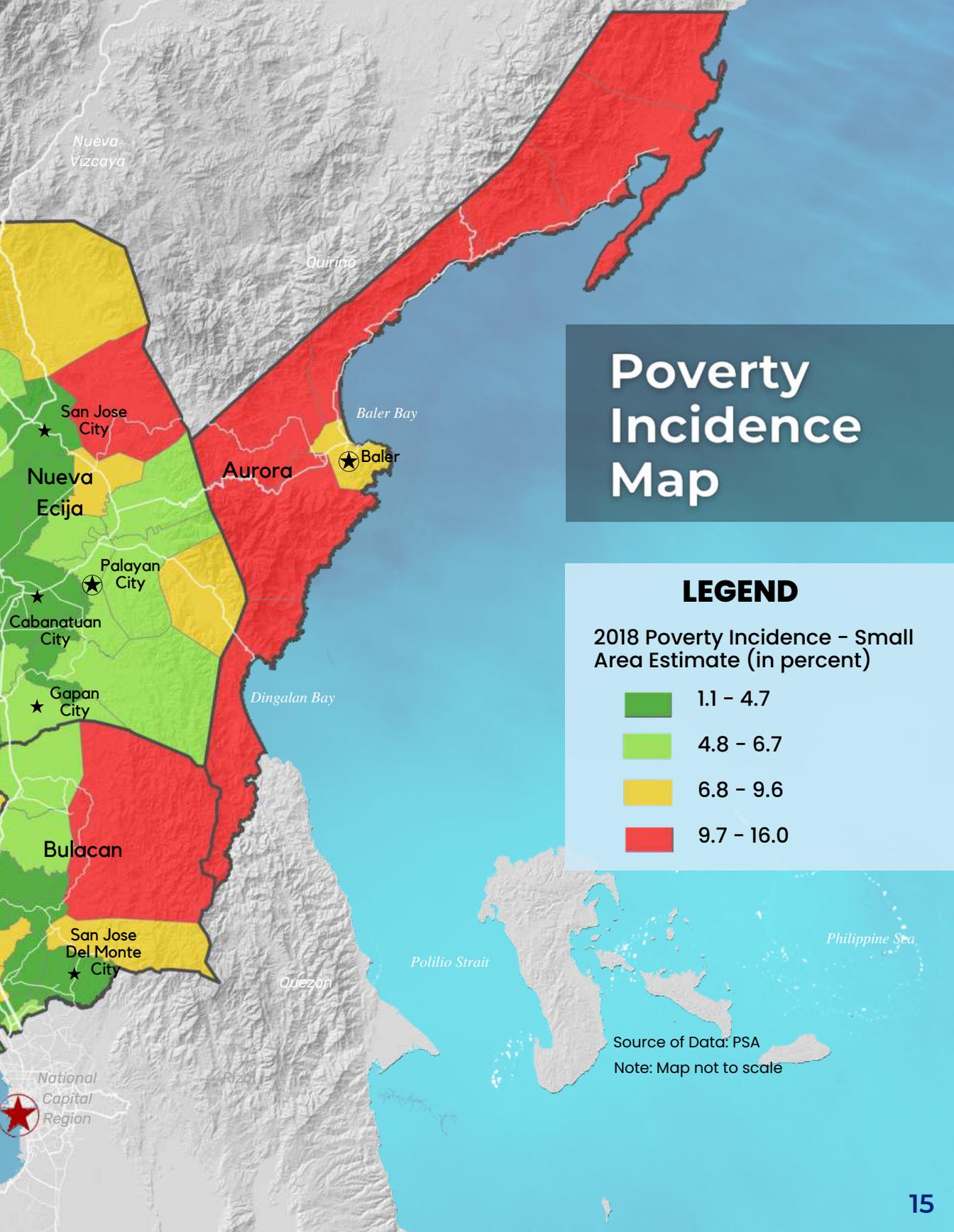
The region's poverty incidence declined in 2018 as the sub-regional picture shows the desired progress with poverty in the province of Nueva Ecija, among others, significantly dropping.



West
Philippine
Sea

Subic
Bay

Manila Bay



Poverty Incidence Map

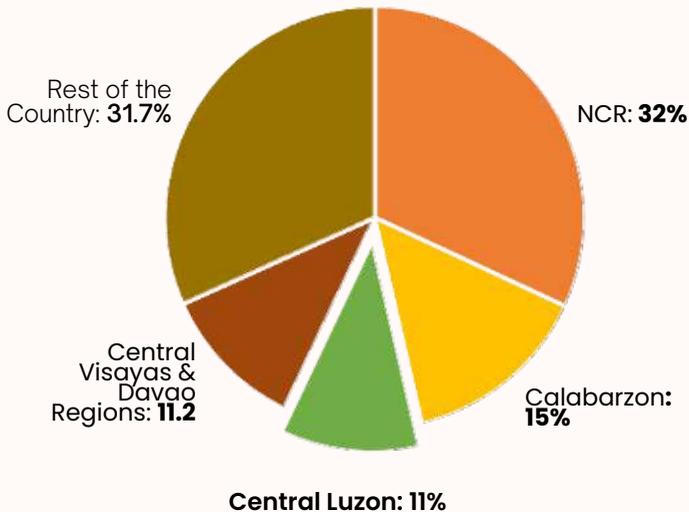
LEGEND

2018 Poverty Incidence - Small Area Estimate (in percent)

- 1.1 - 4.7
- 4.8 - 6.7
- 6.8 - 9.6
- 9.7 - 16.0

Source of Data: PSA
Note: Map not to scale

THE ECONOMY



Central Luzon contributes **11%** to the national output, the third biggest share among regions.

Percentage Share to National Output based on 2021 GDP (in constant 2018 prices)

13.5%

Agriculture,
Forestry,
and Fisheries



Central Luzon's economy is anchored on all three major economic sectors – agriculture, industry, and services.

15.4%

Industry



As a major contributor to the national output, it is considered as one of the country's economic engines; a vital cog to the country's pursuit of economic growth.

8.3%

Services

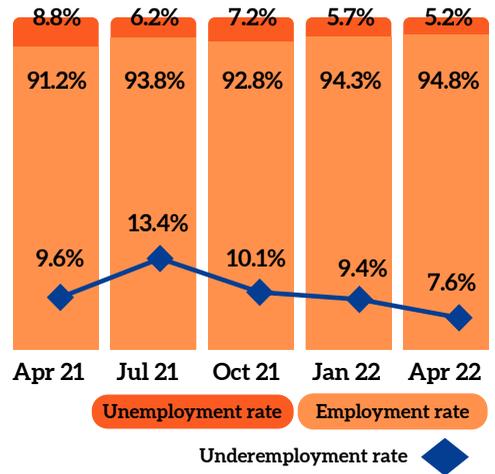


Source of Data: PSA Macroeconomic Accounts

Labor and Employment

The Region posted its highest employment rate of 94.8 percent since the onset of the Covid-19 pandemic of 2020. This translates to 5.1 million out of 5.4 million individuals in the labor force employed as of April 2022.

The unemployment rate of 5.2 percent placed the Region at the eighth spot among regions with the lowest rate, while the underemployment rate of 7.6 percent made Central Luzon second among the regions with the lowest underemployment rates.

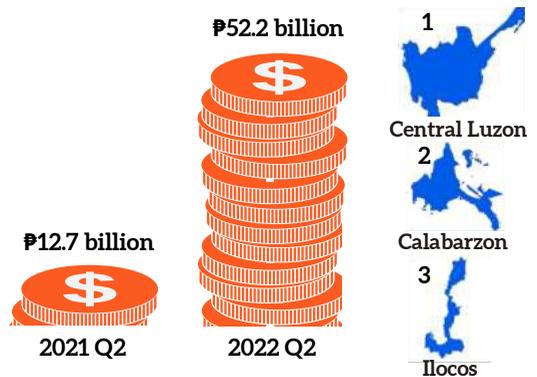


Source of Data: PSA

Investments

Central Luzon is the most preferred investment destination among regions for the second quarter of 2022, with a 52 percent share in the total investments in the country.

The Region's overall approved investments for the second quarter of 2022 totaled PHP 52.2 billion. The value represents a 312 percent growth relative to the committed investments for the same period in 2021.



Source of Data: PSA

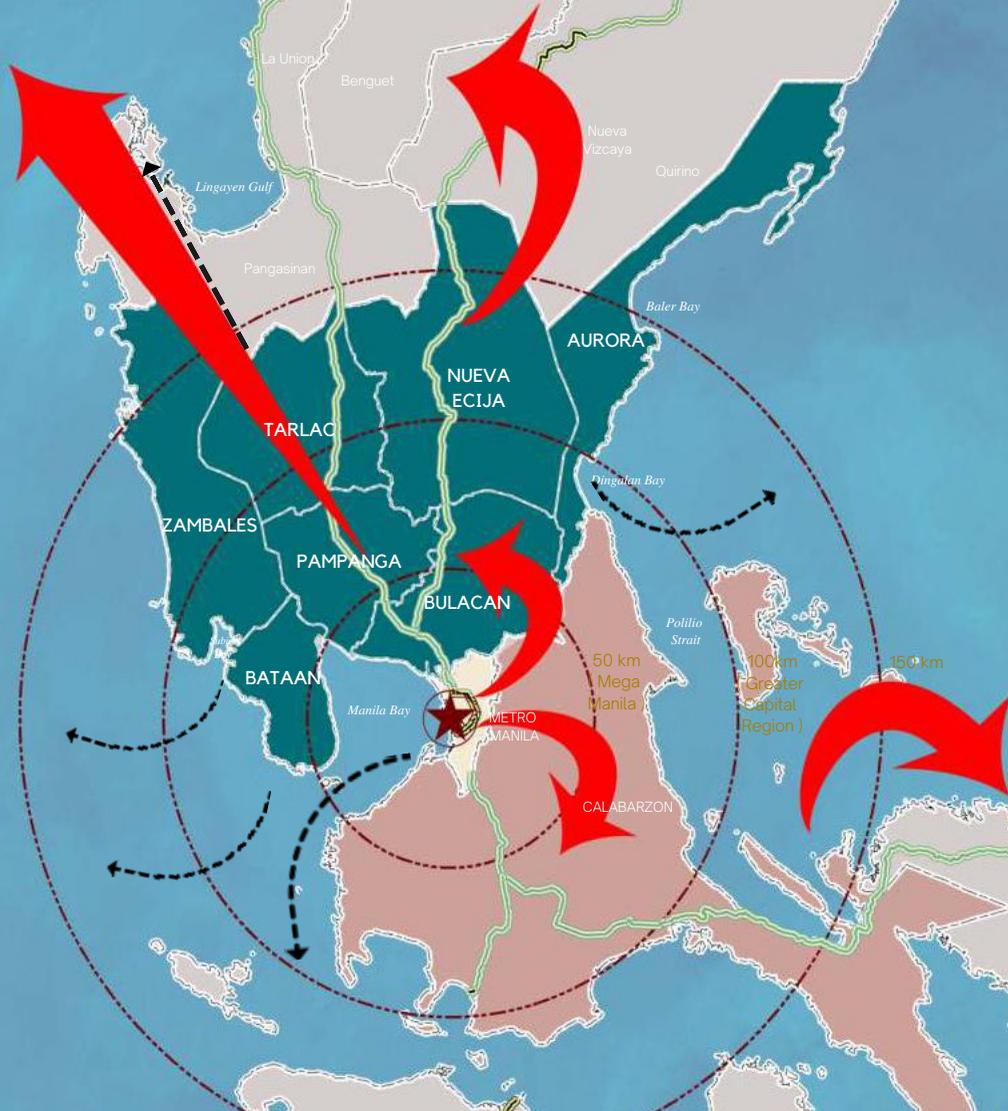
Tourism

Central Luzon's tourism industry remains upbeat after accommodating more than a million visitors during the second quarter of 2022. The figure represents a 144 percent increase from the number of tourists registered in the same period last year.

The provinces of Aurora and Zambales posted the highest growth rates in visitor arrivals per province for the second quarter of 2022.



Source of Data: DOT 3



THE LOCATION

Central Luzon is strategically located in close proximity to Metro Manila, the country's metropolitan center, and the production regions of Northern Luzon.

The Region can envisage itself as one of the country's top food suppliers, leading agro-processing center, and a world-class megalogistics hub.

02

SKETCHING THE DREAM

The regional physical framework plan includes the identification of strategies aligned with the United Nations Sustainable Development Goals (SDGs) in order to accelerate national efforts to attain the SDGs by locally implementing them especially in rapidly urbanizing cities. Sustainable development principles were integrated in the plan, including resource use and development (within the carrying capacity of the environment, protection, and conservation), addressing sprawl, and guiding settlements development.

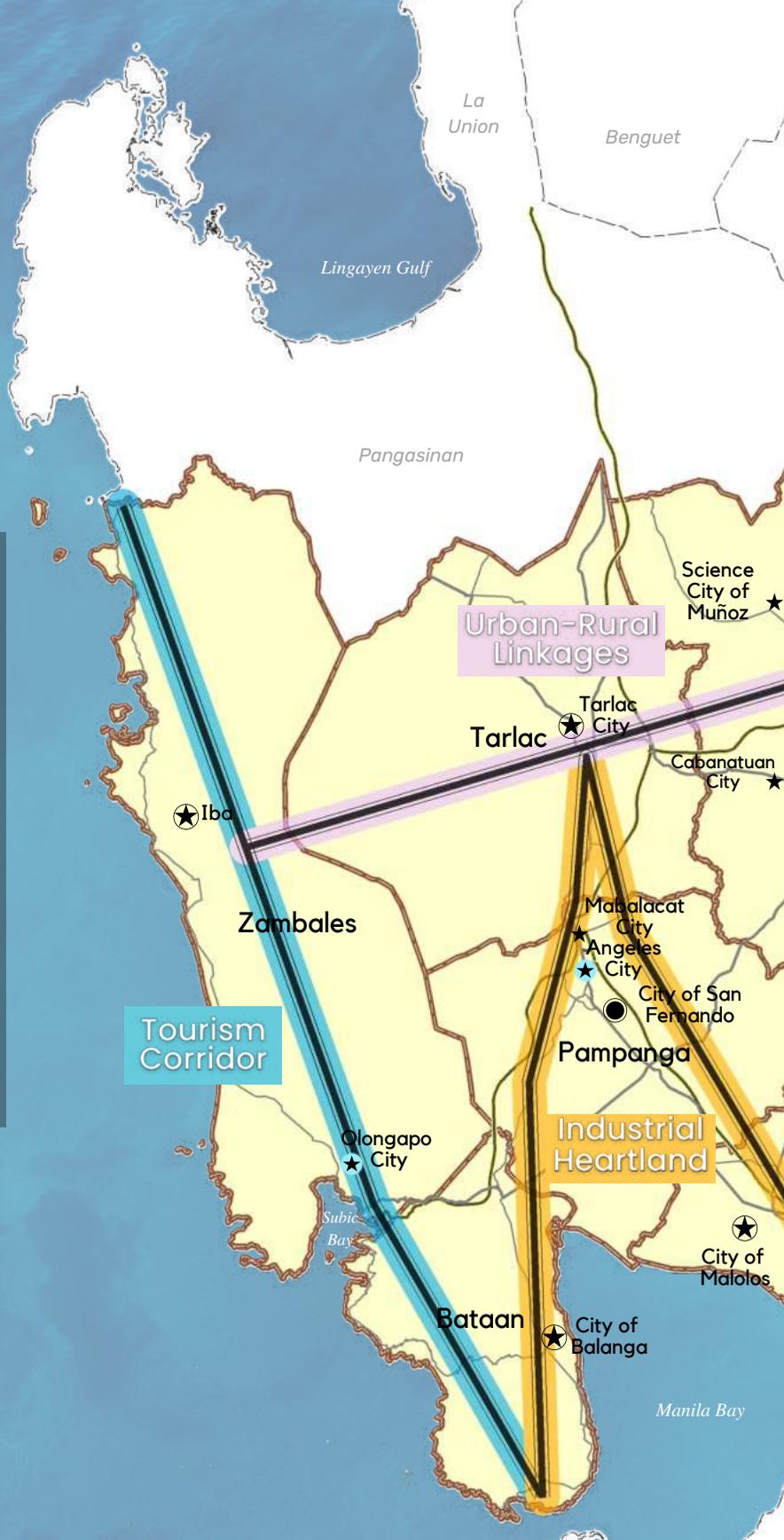
Artist's perspective of New Clark City, a planned community in Tarlac province which will house the National Government Administrative Center. It is meant to serve as a "backup city" in case the capital is incapacitated by disasters and other major disruptions.

Photo Source: Bases Conversion and Development Authority





Central Luzon shall continue to adopt the Enhanced “W” Growth Corridor spatial strategy to attain the region’s vision for 2040. The spatial strategy provides the overarching framework on which land use and development activities in the region will be anchored: i) regional agglomeration; ii) connectivity; and iii) vulnerability reduction.



West
Philippine
Sea

Manila Bay



Enhanced W-Growth Corridor Map

LEGEND

Enhanced W-Growth Corridor Spatial Strategy

-  Agriculture/Forestry
-  Industrial Heartland
-  Tourism Corridor
-  Urban-Rural Linkages

 Primary Roads

 Expressway

 Provincial Boundary

Note: Map not to scale

An aerial photograph of a city grid, showing streets and buildings, is overlaid on a light blue background. The grid is centered and slightly tilted, with the text 'SHAPING COMMUNITIES' superimposed over it.

SHAPING COMMUNITIES

**SAFE. GREEN. CONVENIENT.
PLACES FOR THE PEOPLE.**

BUILDING LIVABLE AND RESILIENT COMMUNITIES

Goal

To develop well-planned communities where people live in a safe environment with sufficient social services and economic opportunities, infrastructure, and utilities

Objectives

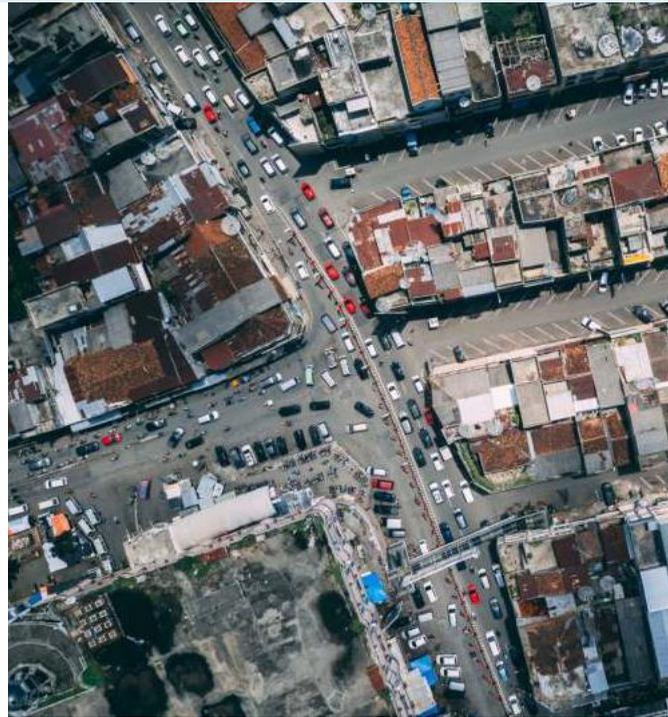
- 01 To establish a rational distribution of the population
- 02 To identify safe settlement areas and provide decent housing for all especially the poor
- 03 To integrate provision of services where people have access to educational, medical, recreational, cultural, and other social services
- 04 To develop green and open public spaces for a more livable environment
- 05 To reduce the negative impact of settlements on the environment by strictly enforcing environmental laws and zoning regulations

Settlement areas are points of concentration of the population engaged in relatively high economic, cultural, and social activities.

RAPID URBANIZATION / SETTLEMENTS EXPANSION

Central Luzon is third among the regions with the highest population. The trend is moving further towards urbanization as shown in the increasing percentage of urban population from 51.6 percent in 2010 to 66.3 in 2020.

By province, Bulacan has the highest percentage of urban population at 85.7 percent, followed by Pampanga and Bataan at 75.0 percent and 59.4 percent, respectively. Meanwhile, of the 130 cities and municipalities, 51.5 percent or 67 LGUs have population which are more than 50 percent urban.



CHALLENGES



HOUSING DEMAND & INFORMAL SETTLEMENTS

Based on the National Informal Settlements Upgrading Strategy, there were over 100,000 informal settler families (ISFs) in the region, placing Central Luzon as the fourth region with the highest ISF population in the country. About 99.58 percent of the ISFs were located in danger areas, while the remaining percentage lived on government-owned lands. The LGUs are seemingly unable to prevent informal settlers from encroaching on public lands, open spaces, and high-risk areas.



SETTLEMENTS IN HAZARD-PRONE AREAS

Flooding is a major issue as most of the lowlands of the region are also part of the Pampanga River Basin covering the provinces of Pampanga, Nueva Ecija, Tarlac, and Bulacan.

Furthermore, earthquakes are a common occurrence in Central Luzon. The Philippine Fault, the longest fault line in the country, traverses the provinces of Nueva Ecija, Bulacan, and Aurora.

A N D I S S U E S

SETTLEMENTS IN PROTECTED AREAS

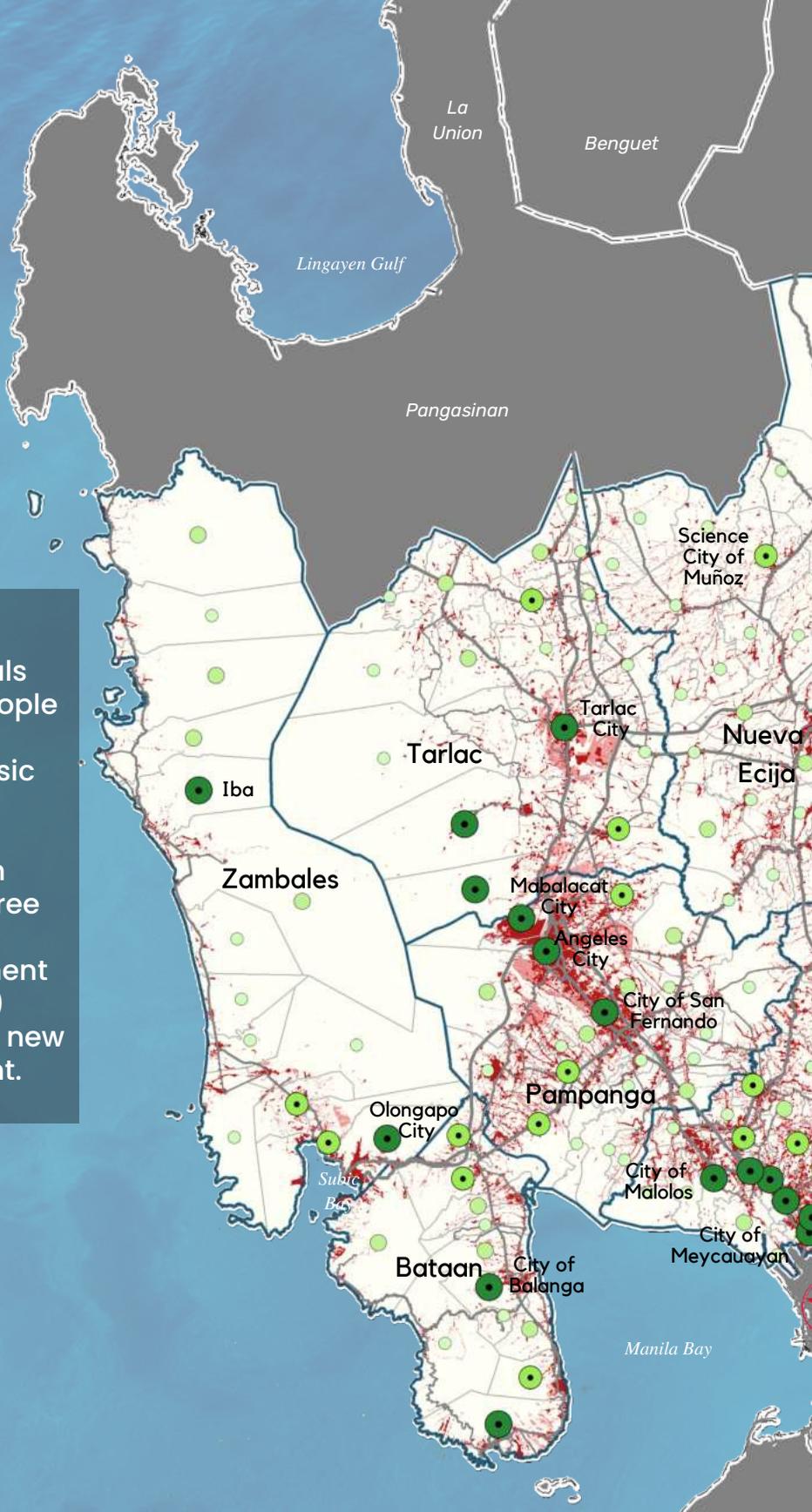
Human encroachment and conversion of forest land into settlements, plantations, and highland vegetable farms have become rampant. Such developments are noted in the case of the Talavera Watershed Forest Reserve where farmers from Benguet have encroached on a protected area.

Likewise in the Bataan National Park, upland encroachment continues as a result of the acquisition of illegal land titles and land speculation.

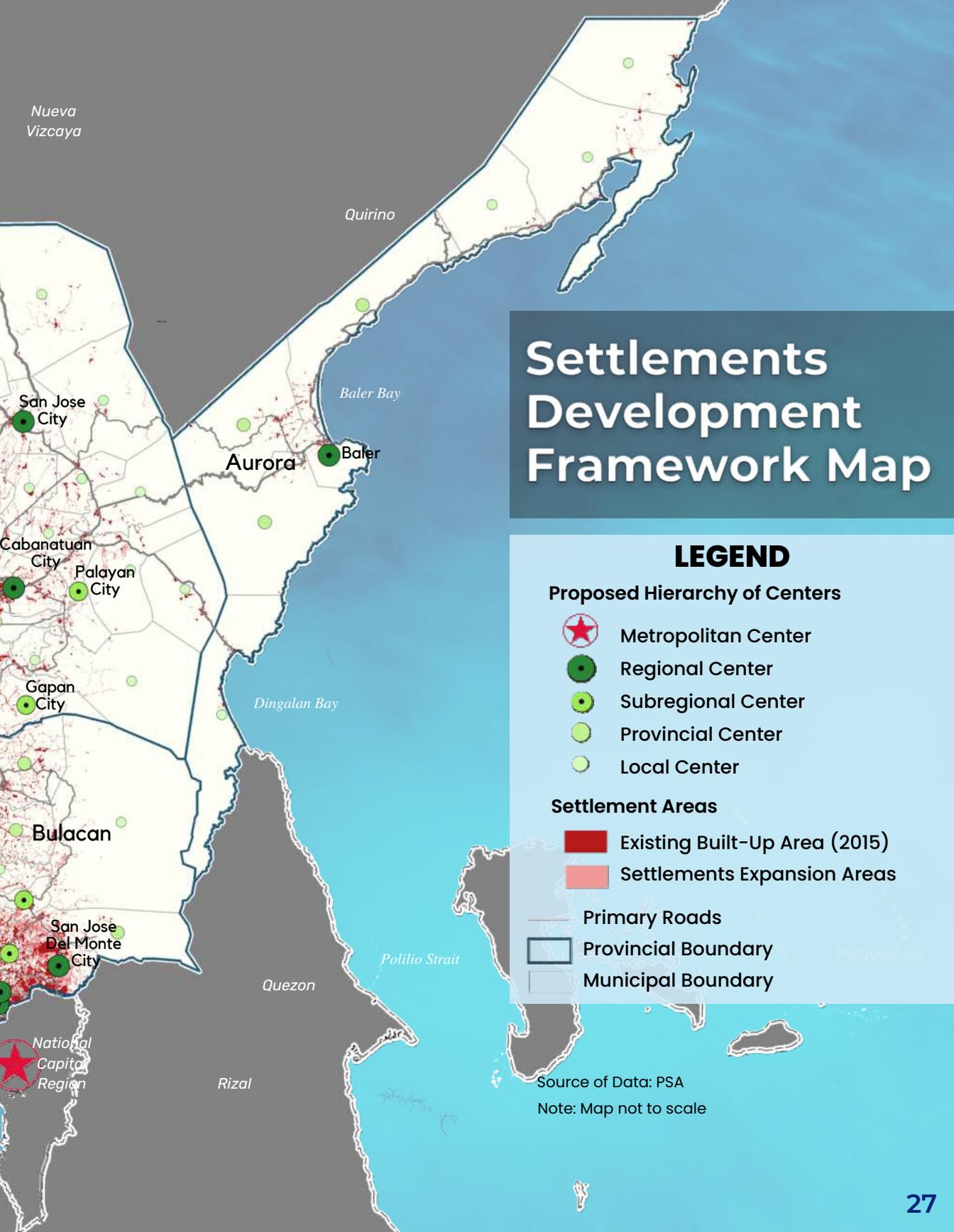




The Settlements Development Plan deals with the location of people to ensure safe and efficient delivery of basic social services, while preserving the areas suitable for production and protection. The three policy options for settlements development are: 1) densification; 2) urban renewal; and 3) new town/city development.



West
Philippine
Sea



Settlements Development Framework Map

LEGEND

Proposed Hierarchy of Centers

-  Metropolitan Center
-  Regional Center
-  Subregional Center
-  Provincial Center
-  Local Center

Settlement Areas

-  Existing Built-Up Area (2015)
-  Settlements Expansion Areas

-  Primary Roads
-  Provincial Boundary
-  Municipal Boundary

Source of Data: PSA
 Note: Map not to scale

How do we overcome the development challenges and issues?

The following are the proposed policies and strategies:

- 01** Implement vertical development (medium to high rise or multi-storey such as in Mariveles, Balanga, Orion) housing projects to address congestion of urban centers. Vertical development and densification shall be implemented in Angeles City as there is no area for expansion (SDG 11.3).
- 02** Implement urban renewal/regeneration and upgrading of buildings and urban services in existing built-up areas to help prevent the destruction of natural ecosystems and arrest urban sprawl (SDG 3.9, 11.6, 13.2).
- 03** Include public spaces (parks and open/green spaces) as key feature in developing settlements as they promote healthier living conditions and contribute to the spatial continuity of natural ecosystems (SDG 3.9, 11.7).
- 04** Plan for redevelopment/renewal of existing settlements to accommodate a larger local population (Angeles City, Olongapo City) (SDG 11.3).
- 05** Plan for urban expansion/metropolitan growth to accommodate a larger local population and to avoid urban sprawl (SDG 11.3).
- 06** Plan for the growth of other towns/cities to accommodate a larger regional population in existing settlements. This will require a long-term perspective that includes land use shifts that allow increased densities and the development of corresponding infrastructure facilities (SDG 11.3).
- 07** Implement strict compliance to City/Municipal Zoning Ordinances and Building Code (SDG 11.a).
- 08** Implement green building codes for resilient housing and low-carbon emission (SDG 9.4, 11.b).
- 09** Relocate or provide necessary engineering interventions, whichever is economically viable and/or socially acceptable, to existing settlements in hazard-prone areas (SDG 1.5, 9.1/9.4, 11.5).
- 10** Restrain and control expansion of present settlements in areas prone to disasters (SDG 11.b, 13.1).
- 11** Consider and prepare for human security issues when the Bataan-Cavite Bridge is realized (e.g. in Mariveles) (SDG 16).

NURTURING ABUNDANCE



*Rice fields in Nueva Ecija supported by irrigation from
Casecnan Multipurpose Irrigation and Power Plant Phase 2*

HARNESSING CAPACITIES FOR A ROBUST ECONOMY

Goal

To foster sustainable and inclusive economic growth

Objectives

01

To identify areas suitable for a balanced development in agriculture, industry and services, mineral resource extraction, and tourism

02

To develop policies and programs that will foster sustainable economic growth

Production land use involves the direct and indirect utilization of land resources to generate outputs needed for consumption.

CHALLENGES AND ISSUES

PRODUCTION LAND USES IN PROTECTION AREAS

Approximately 24 percent of the existing production areas (247,154 hectares) are situated within delineated protected areas, with 18 percent located in environmentally-constrained areas (ECAs) or those areas prone to natural hazards, both hydrologic and geologic.

Certain areas inside the boundaries of several economic zones (ecozones) are also part of the declared protected areas.

LOSS OF AGRICULTURAL LANDS DUE TO LAND CONVERSION

Central Luzon is seeing increasing urban sprawl and industrial development that while good in certain respects as these reflect development, are converting agricultural lands to accommodate said uses. Such is happening in the region's key agricultural production areas which are also sites of the region's ecozones.

Based on PSA data, 3.3 percent of the region's agricultural lands have been lost in a span of five years – from 2010 to 2015, equivalent to 25,750 hectares.

ECONOMIC DISPARITY AMONG PROVINCES

Sustainable development means inter-generational and inclusive growth of all sectors and areas.

Achieving this in the region entails enabling the provinces, cities, and municipalities develop to their best potential by first recognizing their competitive or comparative advantage and then installing or enhancing the services and infrastructure necessary for bolstering the growth of local economies.

EXPOSURE AND VULNERABILITY OF PRODUCTION AREAS TO DISASTERS AND CLIMATE CHANGE

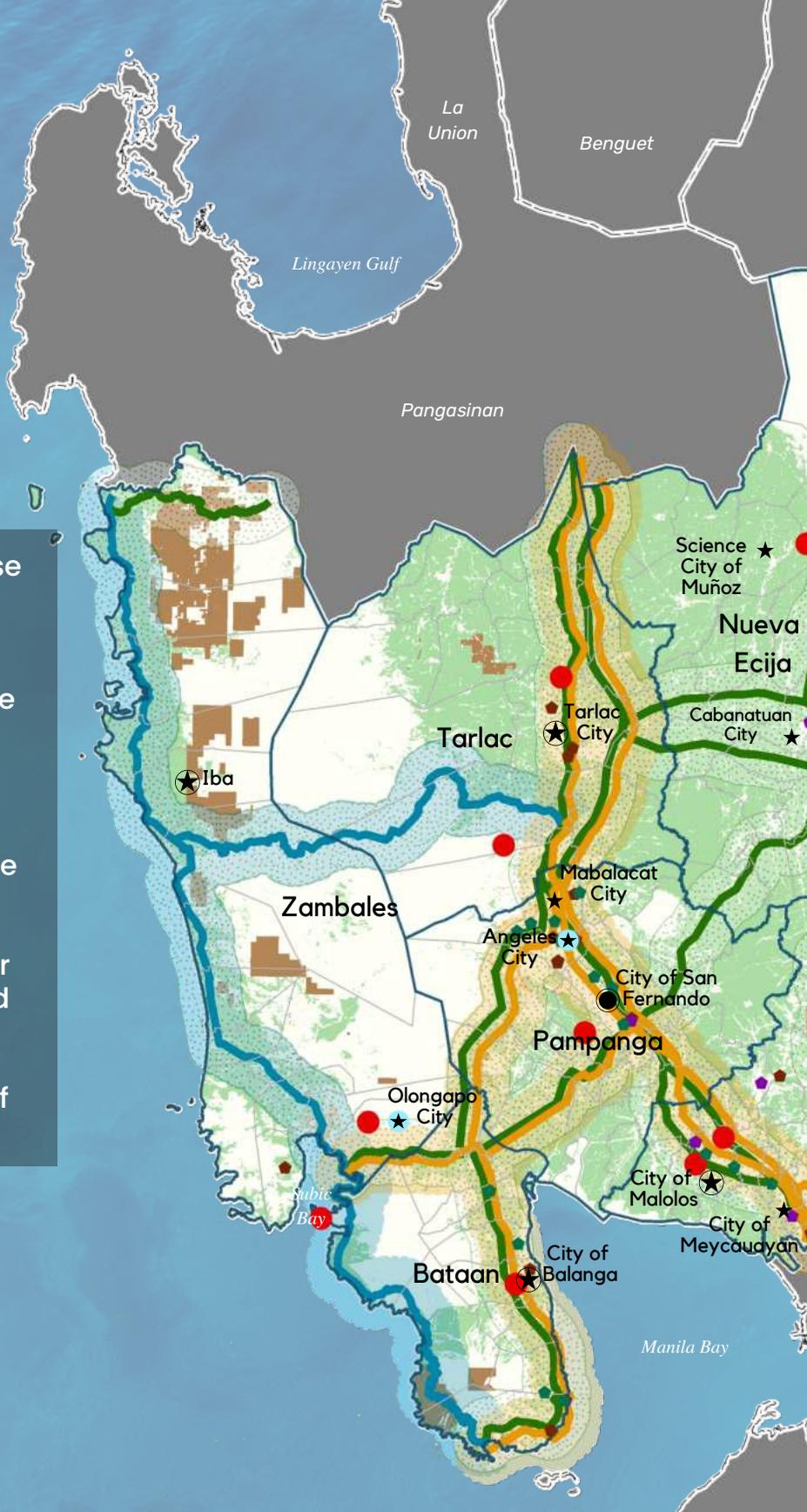
Central Luzon is susceptible to hydro-meteorologic and geologic hazards.

In terms of flooding susceptibility, 45 percent of the region's existing production area is classified moderately to highly susceptible to flooding. These are largely in the low-lying crop production areas of the provinces of Nueva Ecija, Bulacan, Pampanga, and Tarlac.



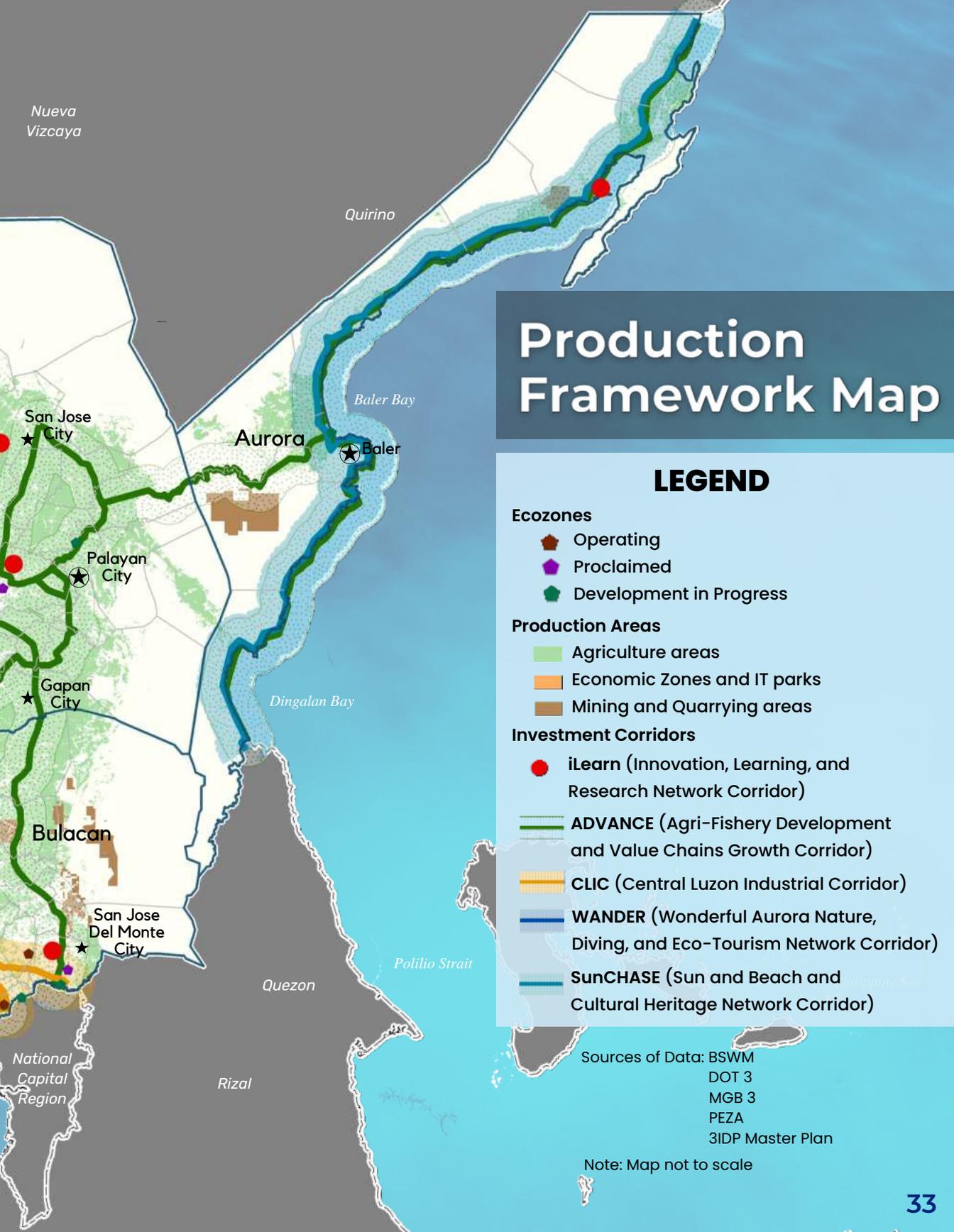
The Production land use constitutes the areas where productive activities could be undertaken to meet the region's and country's requirement for economic growth.

This map combined the areas suitable for agriculture, industry development, areas for mineral extraction, and the tourist destination areas alongside the investment corridors of the region.



West
Philippine
Sea

Manila Bay



Production Framework Map

LEGEND

- Ecozones**
- Operating
 - Proclaimed
 - Development in Progress
- Production Areas**
- Agriculture areas
 - Economic Zones and IT parks
 - Mining and Quarrying areas
- Investment Corridors**
- iLearn (Innovation, Learning, and Research Network Corridor)
 - ADVANCE (Agri-Fishery Development and Value Chains Growth Corridor)
 - CLIC (Central Luzon Industrial Corridor)
 - WANDER (Wonderful Aurora Nature, Diving, and Eco-Tourism Network Corridor)
 - SunCHASE (Sun and Beach and Cultural Heritage Network Corridor)

Sources of Data: BSWM
 DOT 3
 MGB 3
 PEZA
 3IDP Master Plan

Note: Map not to scale



How do we overcome the development challenges and issues?

The following are the proposed policies and strategies:

01

Rationalize land use and preserve productive agricultural lands (SDG 11.3, 11.a):

- a. Ensuring non-conversion of protected agricultural lands (e.g. prime agricultural lands and irrigated areas)
- b. Promoting the passage of NALUA
- c. Encouraging concentration of non-agricultural production activities in economic/freeport zones or clustering of industries in investment corridors to prevent conversion of agricultural lands
- d. Promoting modern farming and climate-smart agriculture technologies and practices and the utilization of climate stress-free tolerant crops

02

Enforce environment regulations and prevent further encroachment of production activities in protected areas (SDG 15.1):

- a. Pursuing co-management among concerned stakeholders in protected areas to encourage participation in protection area management
- b. Promoting sustainable production activities in protected areas

03

Reduce vulnerability of production areas to disasters (SDG 9.5, 11.5, 13.1):

- a. Adopting and implementing protection measures for vulnerable areas against the effects of natural hazards
- b. Advancing research on increasing resiliency
- c. Locating industries away from hazard-prone areas

04

Ensure spatial growth/economic equity through the development of economic corridors or strategic development areas in the region (SDG 9.1, 9.2, 11.a/b):

- a. Supporting the development of identified economic corridors or strategic development areas (as identified in the study on Integrated Infrastructure and Investment Development Planning (3IDP) for Investment Corridors in Central Luzon)
- b. Providing for the necessary support infrastructure for fostering industry growth and competitiveness



DEFENDING NATURE

Forestlands in Carranglan, Nueva Ecija host several species of flora and fauna

SAFEGUARDING HARMONY AND BALANCE

Goal

To preserve the integrity of the region's protected areas for the benefit of the present and future generations

Objectives

- 01 To protect sensitive and critical ecosystems from encroachment
- 02 To rehabilitate and restore degraded forest areas
- 03 To keep people and urbanization from encroaching on ECAs
- 04 To mitigate the effects of natural hazards on people and the economy

Preserving and sustaining the capacity of the natural environment to support life and economic growth must take precedence in the region's development effort.

CHALLENGES AND ISSUES

LAND USE CONFLICTS/ ENCROACHMENTS IN PROTECTED AREAS

Conflicts arise from incompatible land uses occurring in protected areas, such as settlement and production or extractive activities.

Human encroachment and conversion of forest land to settlement, plantation, and highland vegetable farms are noted in areas such as the Talavera Watershed Forest Reserve and Bataan National Park.

Also contributing to biodiversity loss is illegal hunting of wildlife in protected areas. This has led to dwindling of local wildlife population.

VULNERABILITY TO NATURAL HAZARDS/ ELEMENTS AND RISK IN ECAS

ECAs make up for the third group of protected areas. These are areas prone to natural hazards that may be weather-related, hydrologic, and geologic.

From 2011 to 2018, the Philippines ranked third out of 173 countries in terms of disaster risk. The country, notably Central Luzon, is susceptible to natural hazards due to its geographical location and topography.

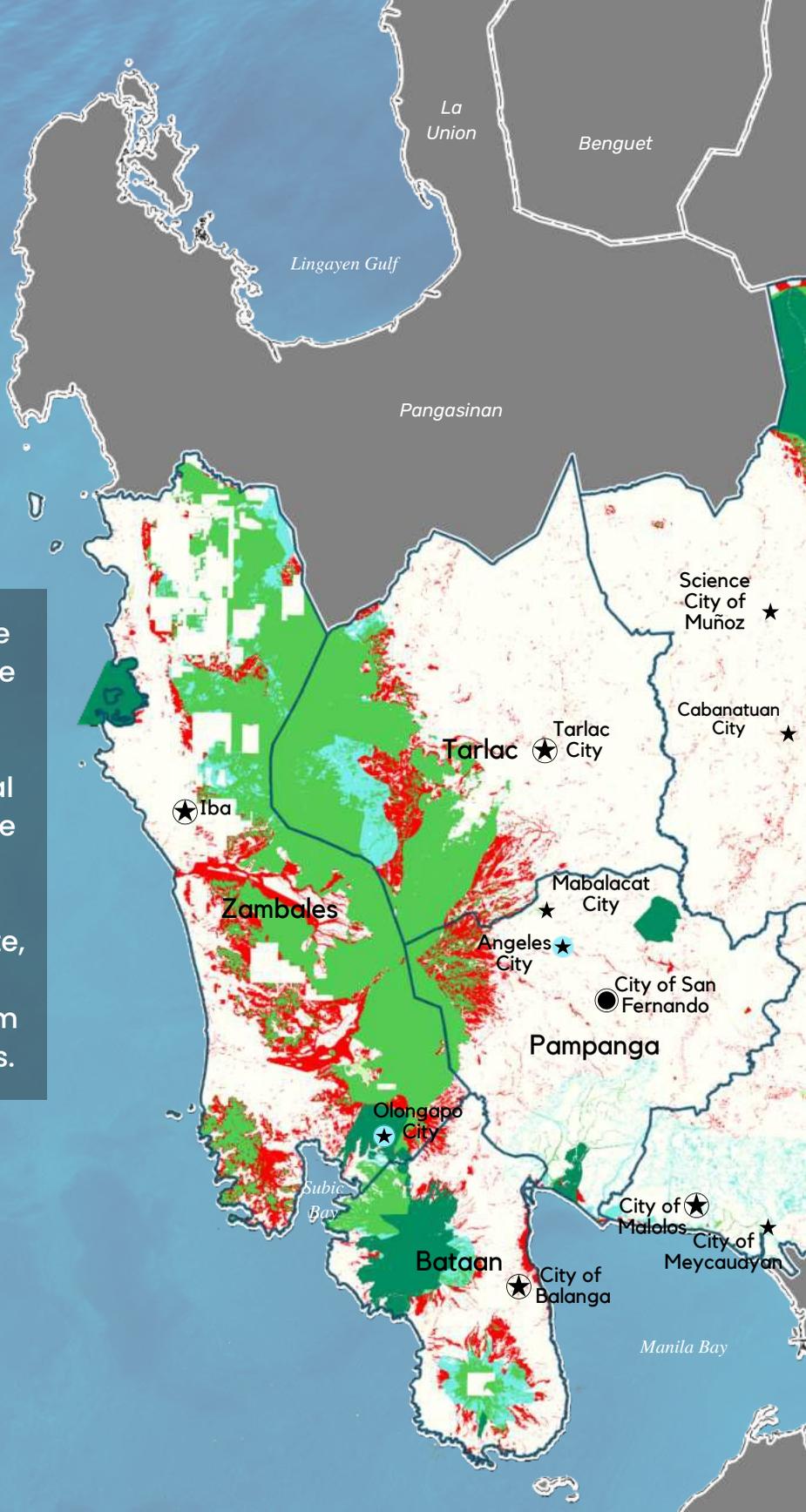
ENVIRONMENTAL DEGRADATION

The region's watersheds face incessant degradation characterized by degraded forests, soil erosion, erratic streamflow, declining groundwater resource, loss of biodiversity, microclimate modification, and declining land productivity. Such is caused by inappropriate agricultural and forestry practices, overgrazing, poor water resource management, and unregulated land conversion and industrial activities.

FRAGMENTED AND UNCOORDINATED MANAGEMENT AND POLICY

There are no coherent policies or guidelines on the proper use and management of freshwater swamps and marshes.

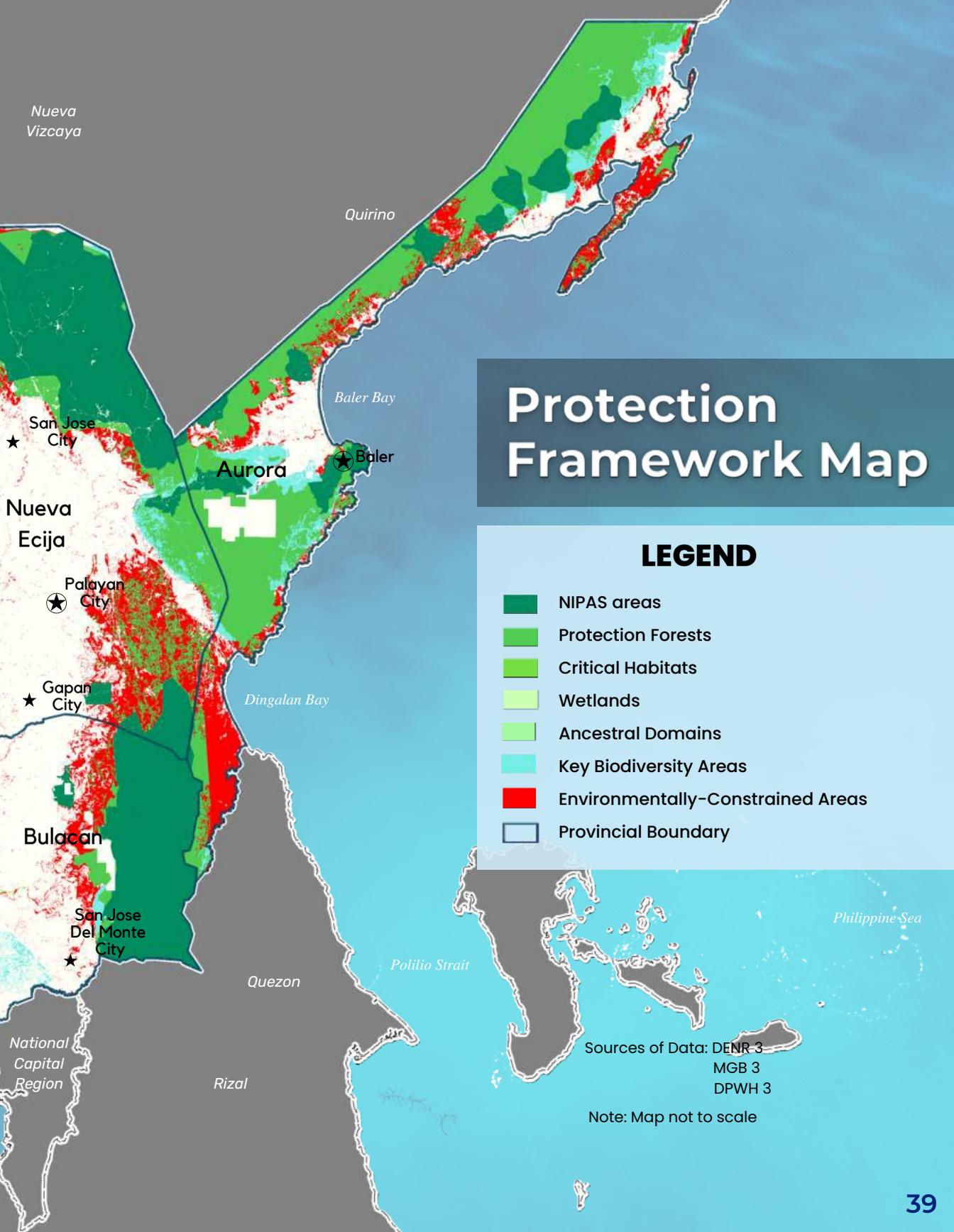
There are also conflicting and overlapping laws and policies over watershed areas that must be reviewed and harmonized, such as forest protection laws and the Agriculture and Fisheries Modernization Act.



The Protection land use framework presents the rehabilitation, conservation, and management of critical ecosystems to preserve ecological integrity, allowing degraded resources to regenerate, and safeguard the human population from environmental hazards.

West
Philippine
Sea

Manila Bay



Protection Framework Map

LEGEND

- NIPAS areas
- Protection Forests
- Critical Habitats
- Wetlands
- Ancestral Domains
- Key Biodiversity Areas
- Environmentally-Constrained Areas
- Provincial Boundary

Sources of Data: DENR 3
MGB 3
DPWH 3

Note: Map not to scale

How do we overcome the development challenges and issues?

The following are the proposed policies and strategies:

01

Ensure containment and regulation of existing settlements in protected areas. A buffer zone may be provided to ensure there is no expansion/additional encroachment in the protected areas (PAs). An updated inventory of migrants and settlers must be conducted by DENR for proper monitoring of these areas and ensure no additional encroachment in the PAs (SDG 13.1).

02

Prohibit production activities in areas with high to very high or critical susceptibility to flooding, leniency may be accorded for production and agricultural activities in areas with low to moderate flooding susceptibility (SDG 11.5, 13.1).

03

Rehabilitate degraded forestlands, critical watersheds and major river basins continuously through reforestation efforts under the Enhanced National Greening Program and Forestland Management Program and local complementary reforestation programs (SDG 15.1, 15.2).

04

Ensure the indigenous people's rights to develop, control, and use land within their ancestral domain in accordance with approved Ancestral Domain Sustainable Development and Protection Plans (SDG 2.3).

05

Formulate DRRM plans for affected areas and align with the PA Management Plans and Forest Land Use Plans of local government units, and integrate LCCAP and CDRA in all local plans (SDG 11.b, 13.1).

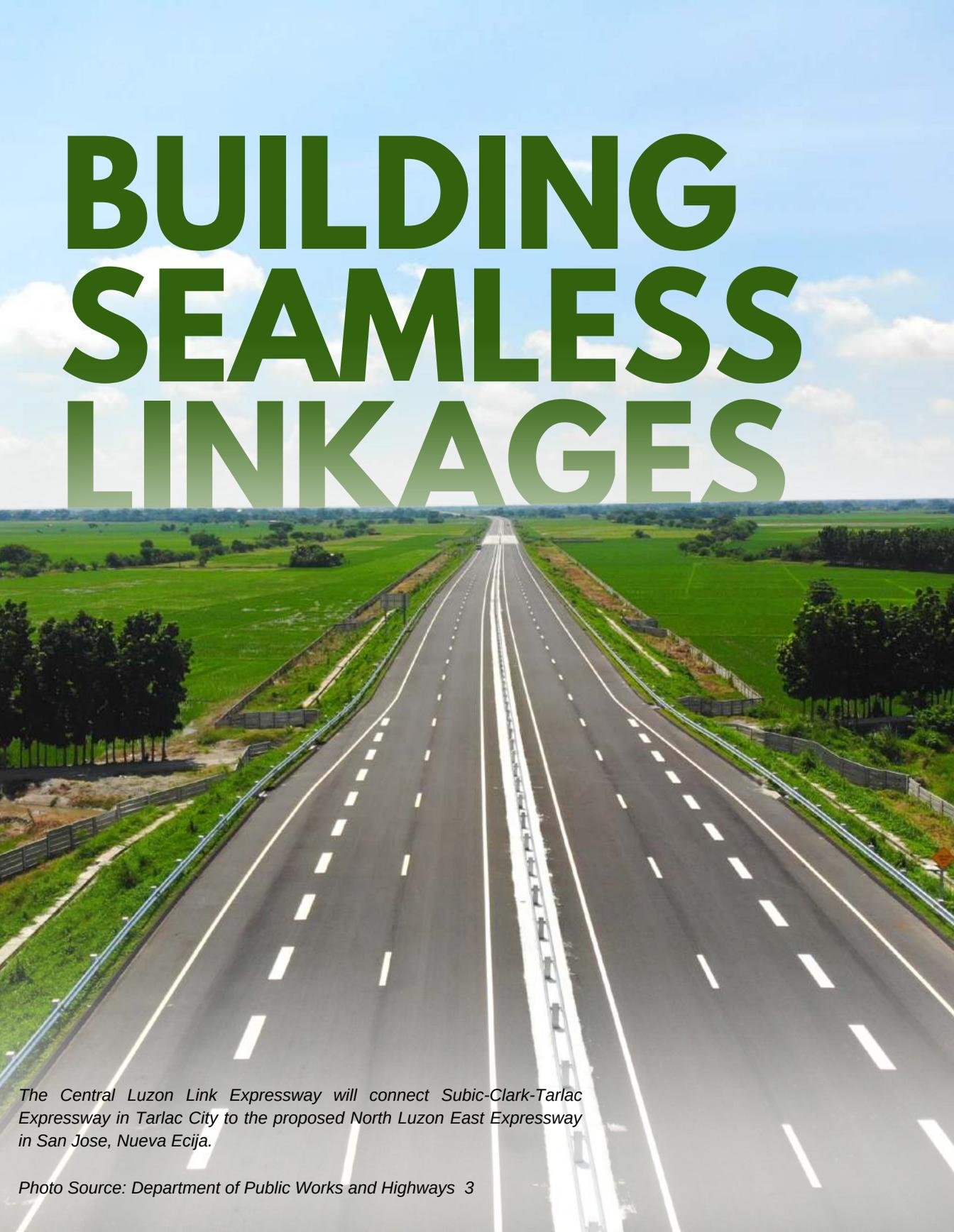
06

Institutionalize community-based and culture-specific Early Warning System (SDG 13.3).

07

Develop and institutionalize information management systems and sharing between the provincial, municipal and barangay levels (SDG 11.b, 13.1).

BUILDING SEAMLESS LINKAGES



The Central Luzon Link Expressway will connect Subic-Clark-Tarlac Expressway in Tarlac City to the proposed North Luzon East Expressway in San Jose, Nueva Ecija.

Photo Source: Department of Public Works and Highways 3

ACCELERATING SUSTAINABLE CONNECTIVITY

Goal

To provide sufficient, efficient, and climate and disaster-resilient infrastructure that will serve as backbone of physical integration

Objectives

01

To support and guide urban and rural development integrating settlements while mitigating impacts of hazards to communities

02

To provide vital link between people, products, and services through efficient transport solutions

03

To link the region to the global community

Infrastructure aims to link and provide efficient, reliable access and build the necessary facilities in the areas/lands planned for production, protection, and settlements.

CHALLENGES AND ISSUES

INCREASING WATER DEMAND FOR DOMESTIC AND INDUSTRIAL USE

The bulk of consumption of water is attributed to agriculture (irrigation), industrial, and domestic use. Groundwater depletion is reported in areas of Bulacan, Pampanga and Nueva Ecija. Saltwater has also advanced further because of over-extraction of ground water.

TRAFFIC CONGESTION

Traffic congestion remains a challenge in several parts of the region, such as in the industrial corridor of San Fernando-Angeles Road, and the Malolos-Meycauyan portion of the Manila North Road and other urban areas.

FLOODING

Many areas in the region have high flooding susceptibility such as those in low-lying areas, near active and abandoned river channels, as well as along river banks.

Among the seven provinces in the region, Nueva Ecija has the largest area with high flooding susceptibility, followed by Pampanga and Bulacan.

DEPENDENCE ON NON-RENEWABLE ENERGY

Despite the relatively high access of the region to electricity, household electrification in off-grid and hard to reach areas remains a challenge. Heavy reliance on imported fossil fuels, high financing costs and uncompetitive market structures are factors that make electricity in the country costly.

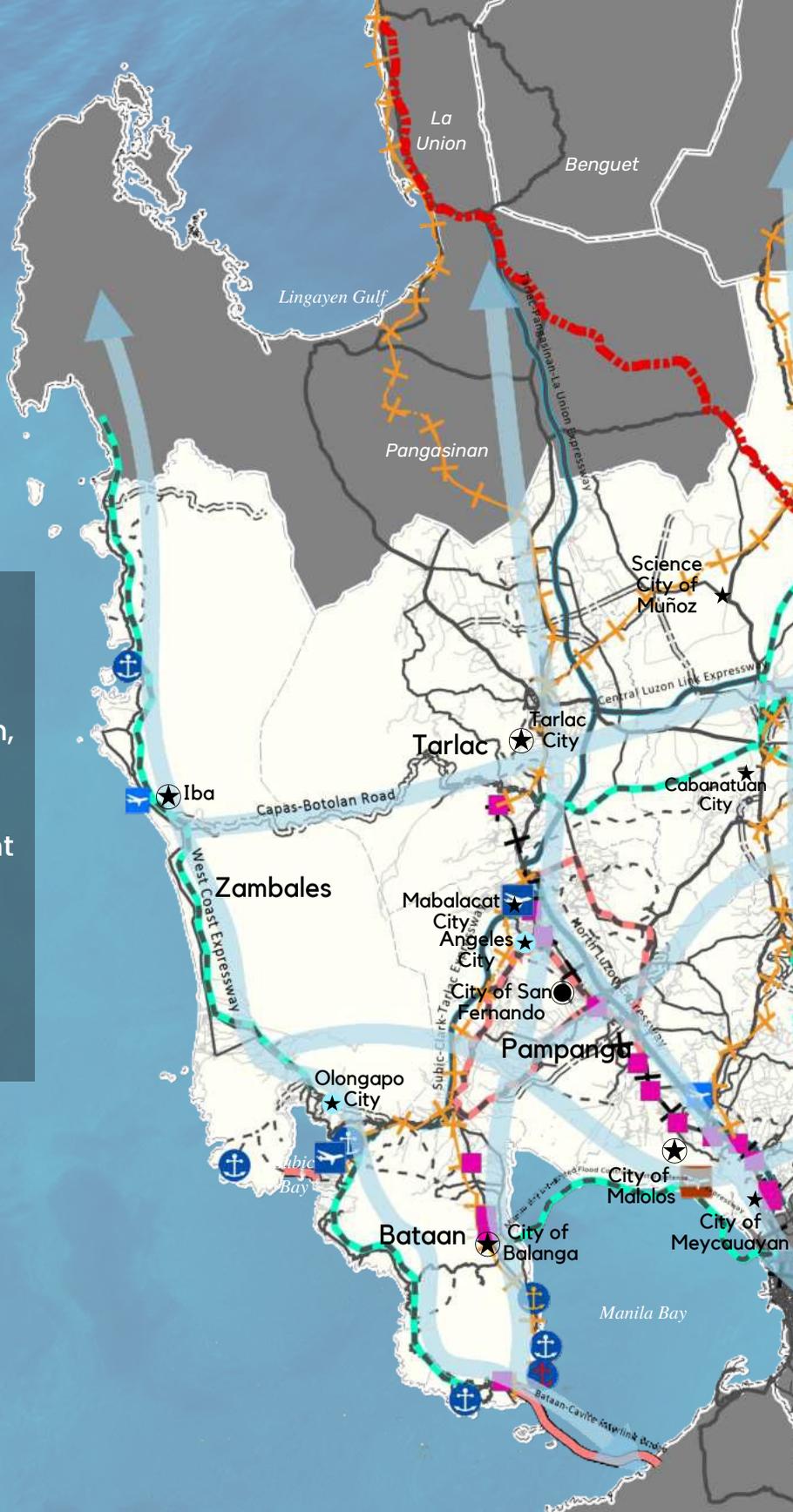
INADEQUATE SOLID WASTE MANAGEMENT FACILITIES

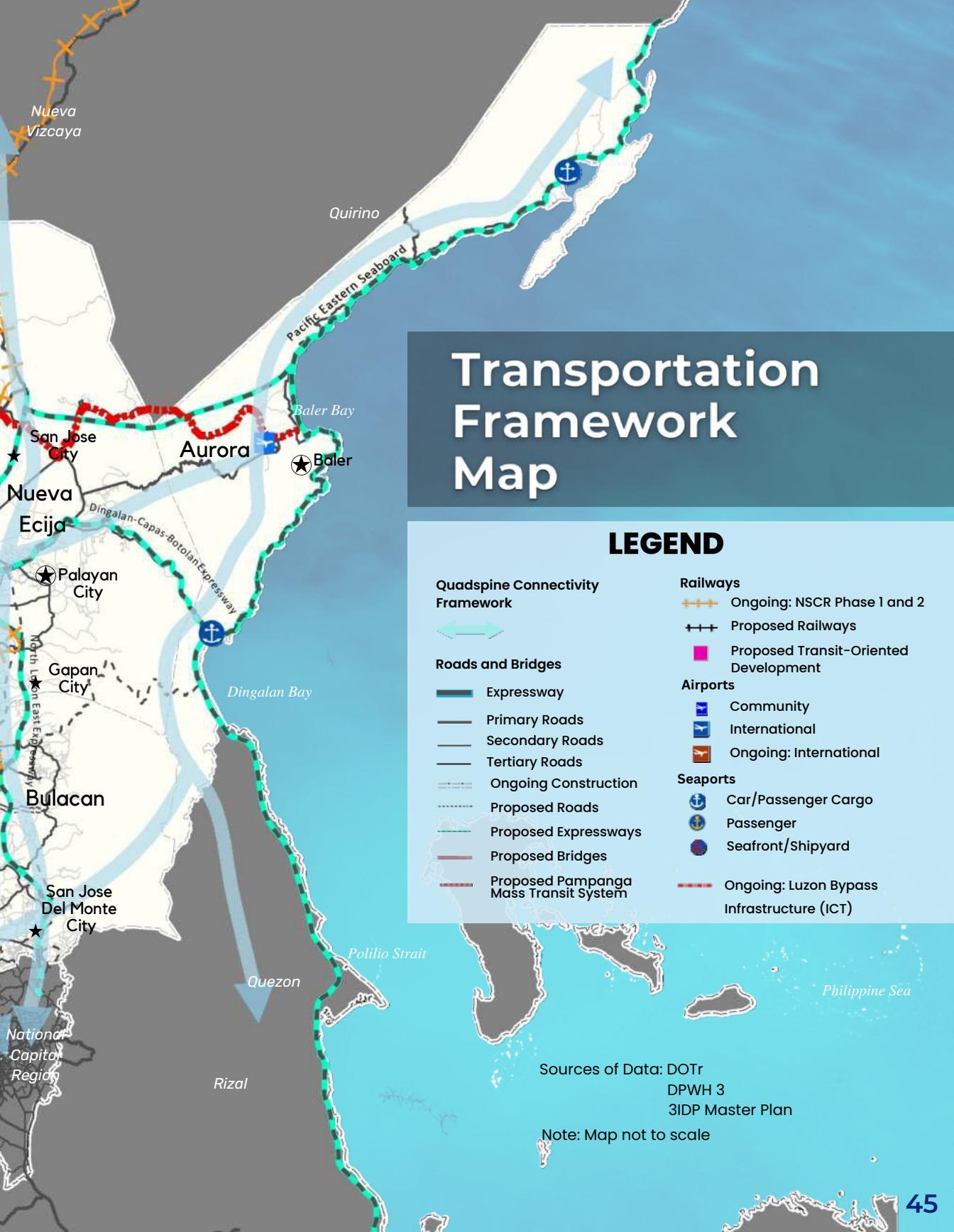
Few LGUs are able to construct, operate, and maintain materials recovery facilities, while some still use open dumpsites and/or controlled dumpsites. Constructing sanitary landfills and other waste management facilities remains challenging due to high capital costs and associated social acceptability issues.



The Infrastructure development plan serves as the common link between production, protection and settlements. It will prioritize and implement infrastructure projects that support the policy of national dispersal through regional concentration.

West
Philippine
Sea





Transportation Framework Map

LEGEND

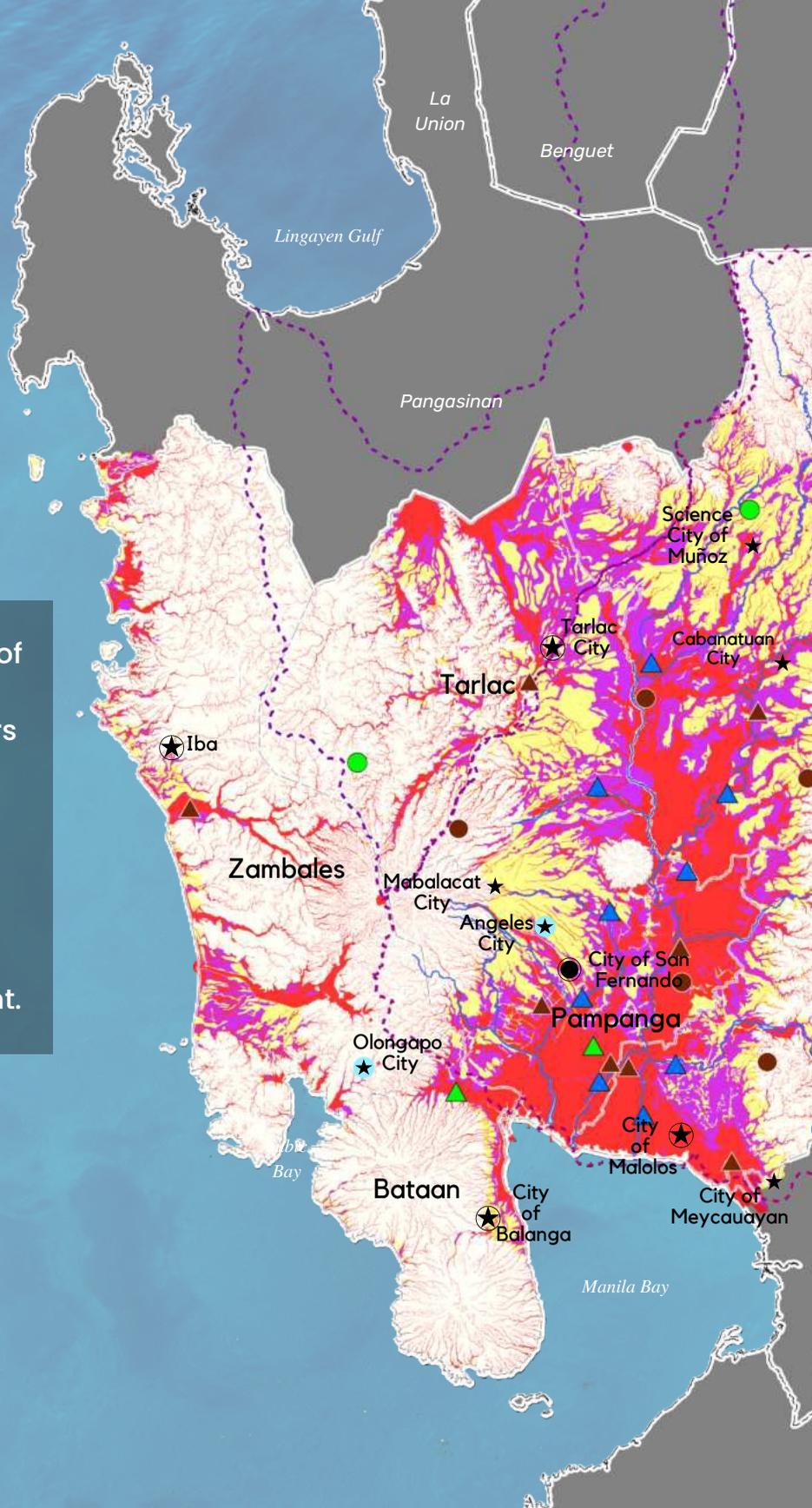
| | | | |
|---|---------------------------------------|-----------------|--|
| Quadspine Connectivity Framework | | Railways | |
| | | | Ongoing: NSCR Phase 1 and 2 |
| | | | Proposed Railways |
| Roads and Bridges | | | Proposed Transit-Oriented Development |
| | Expressway | Airports | |
| | Primary Roads | | Community |
| | Secondary Roads | | International |
| | Tertiary Roads | | Ongoing: International |
| | Ongoing Construction | Seaports | |
| | Proposed Roads | | Car/Passenger Cargo |
| | Proposed Expressways | | Passenger |
| | Proposed Bridges | | Seafront/Shipyard |
| | Proposed Pampanga Mass Transit System | | Ongoing: Luzon Bypass Infrastructure (ICT) |

Sources of Data: DOTr
DPWH 3
3IDP Master Plan

Note: Map not to scale



Addressing the effects of climate change and other potential disasters are considered in planning for resiliency and future-proofing infrastructure development, particularly on water resources management.



West
Philippine
Sea

Lingayen Gulf

La Union

Benguet

Pangasinan

Science
City of
Muñoz

Tarlac City

Cabanatuan
City

Tarlac

Iba

Zambales

Mabalacat
City

Angeles
City

City of San
Fernando

Pampanga

Olongapo
City

City of
Malolos

Bataan

City of
Balanga

City of
Meycauayan

Abra
Bay

Manila Bay

Nueva Vizcaya

Quirino

Baler Bay

Aurora

Baler

San Jose City

Nueva Ecija

Palayan City

Dingalan Bay

Gapan City

Bulacan

San Jose Del Monte City

Quezon

Polilio Strait

Rizal

Philippine Sea

Bulk Water and Flood Mitigation Infrastructure Map

LEGEND

Water Resources Management Infrastructure (Bulk Water Supply Projects)

- Completed
- Ongoing
- Proposed

Flood Mitigation Infrastructure (Flood Control Projects)

- Completed
- Ongoing
- Proposed

Flood Susceptibility

- Low
- Medium
- High

Reservoir/Water Bodies

Provincial Boundary

Agno River Basin

Pampanga River Basin

Sources of Data: MGB 3
NAMRIA

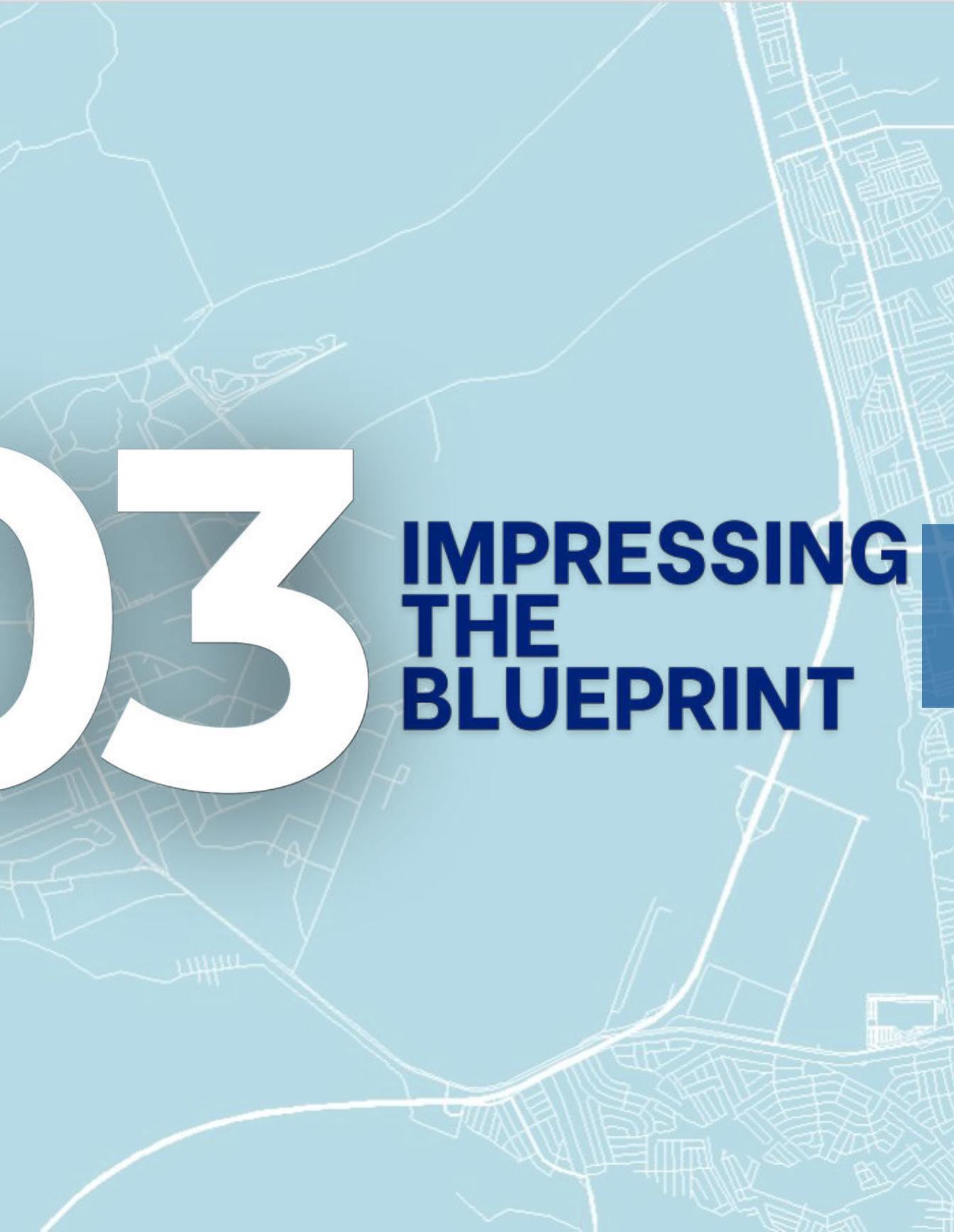
Note: Map not to scale

How do we overcome the development challenges and issues?

The following are the proposed policies and strategies:

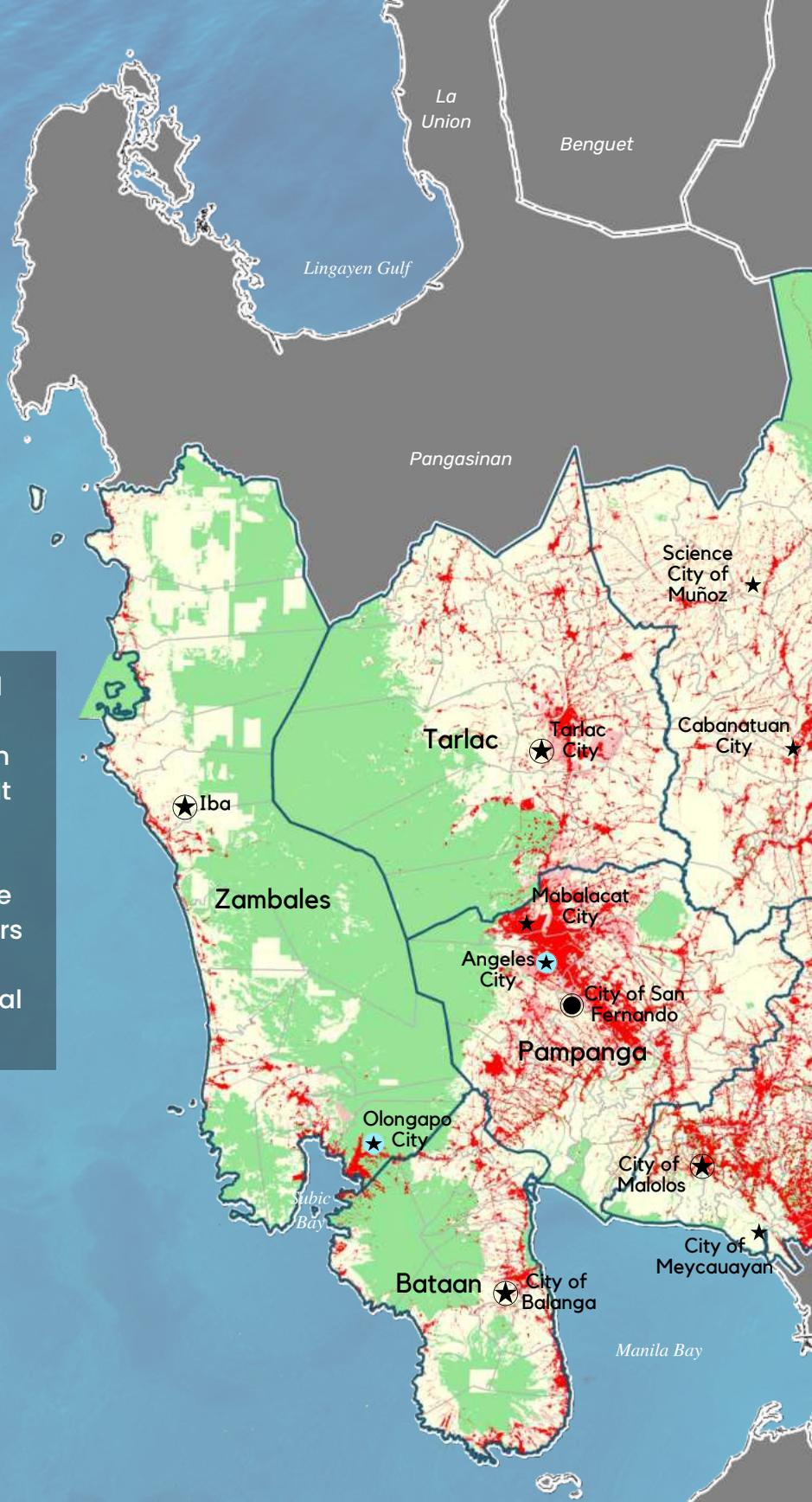
- 01** Improve and maintain the region's trunk road system especially sections critical to inter-regional and intra-regional linkages (SDG 11.2).
- 02** Upgrade and improve major road networks in areas experiencing heavy traffic. While bypass roads can ease traffic, zoning/land use policies in these areas should be continually enforced especially if they traverse major production/protection areas (SDG 11.2).
- 03** Promote non-motorized transport and walkability in urban centers, in combination with adequate public mass transport and transit-oriented development to improve ease of access and efficiency of movement within urban centers (SDG 9.1, 11.2, 11.6, 11.7).
- 04** Identify and assess areas where increased demand for water (industry, agriculture and household use) can be improved (efficiency, quality) or provided (accessibility, sustainability) (SDG 6.3, 6.4).
- 05** Explore sustainable technologies or sources of clean water (surface, ground) for implementation and development in high-demand areas or industries where shortages are being experienced or projected (SDG 6.3, 6.a).
- 06** Encourage clustering of LGUs in planning sanitary landfill facilities and other solid waste management technologies to address its large capital requirement and allow low income LGUs to pool resources to establish such facilities (SDG 11.6, 12.4, 12.5).
- 07** Promote investments in renewable energy, green, and sustainable building techniques valuing existing ecosystem services (SDG 7.2).
- 08** Implement water-sensitive urban designs such as establishing rainwater harvesting facilities, porous and permeable pavements to enhance surface water infiltration, rainwater percolation intakes in existing and new planned unit development (SDG 13.2).





03

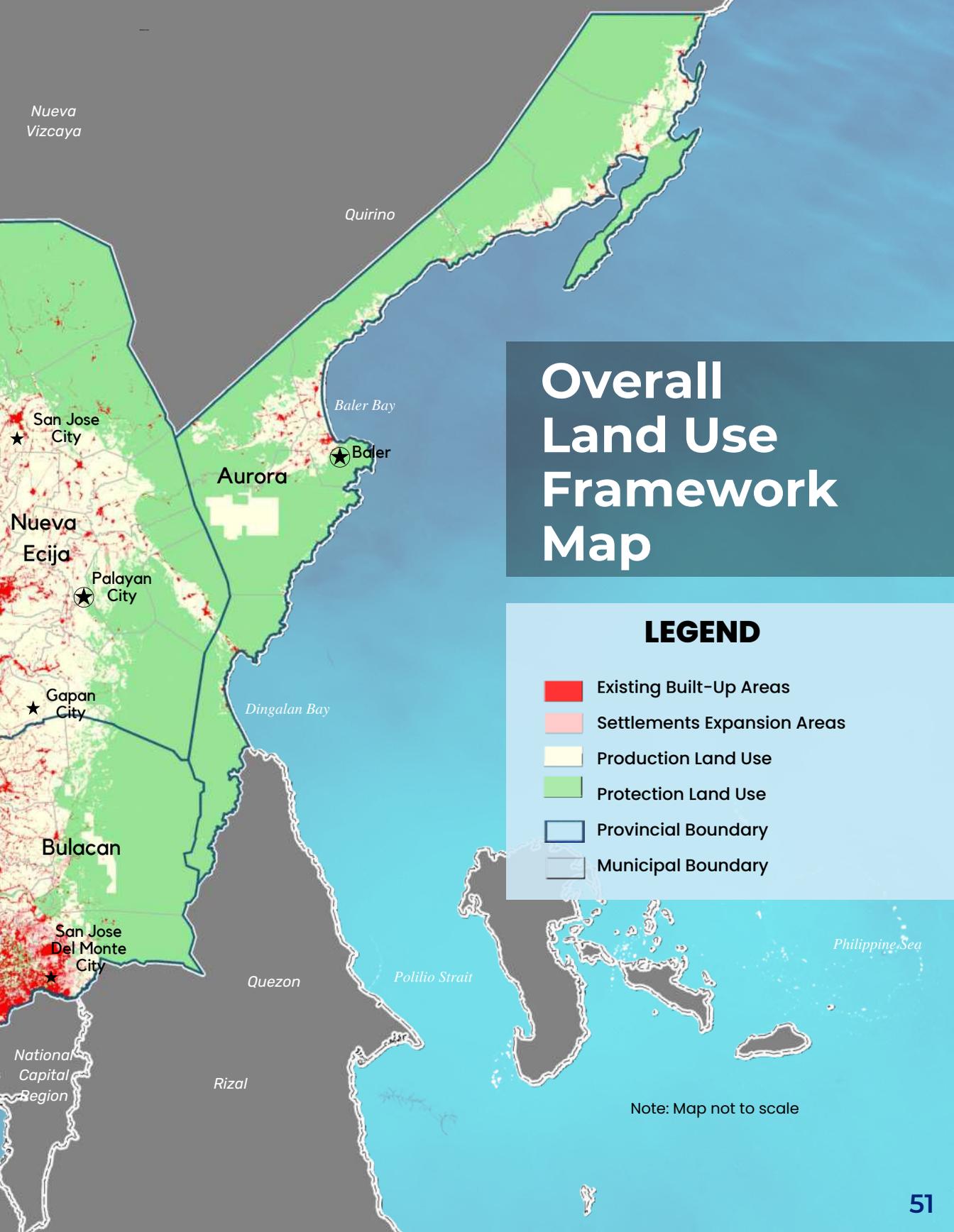
**IMPRESSING
THE
BLUEPRINT**



The overall land use and physical framework illustrates the integration of the four policy areas. It aims to steer economic activities and achieve a spatial pattern where the public and private sectors work together towards sustainable use of natural resources.

West
Philippine
Sea

Manila Bay



Nueva Vizcaya

Quirino

Baler Bay

Baler

Aurora

Dingalan Bay

Quezon

Polilio Strait

Philippine Sea

Rizal

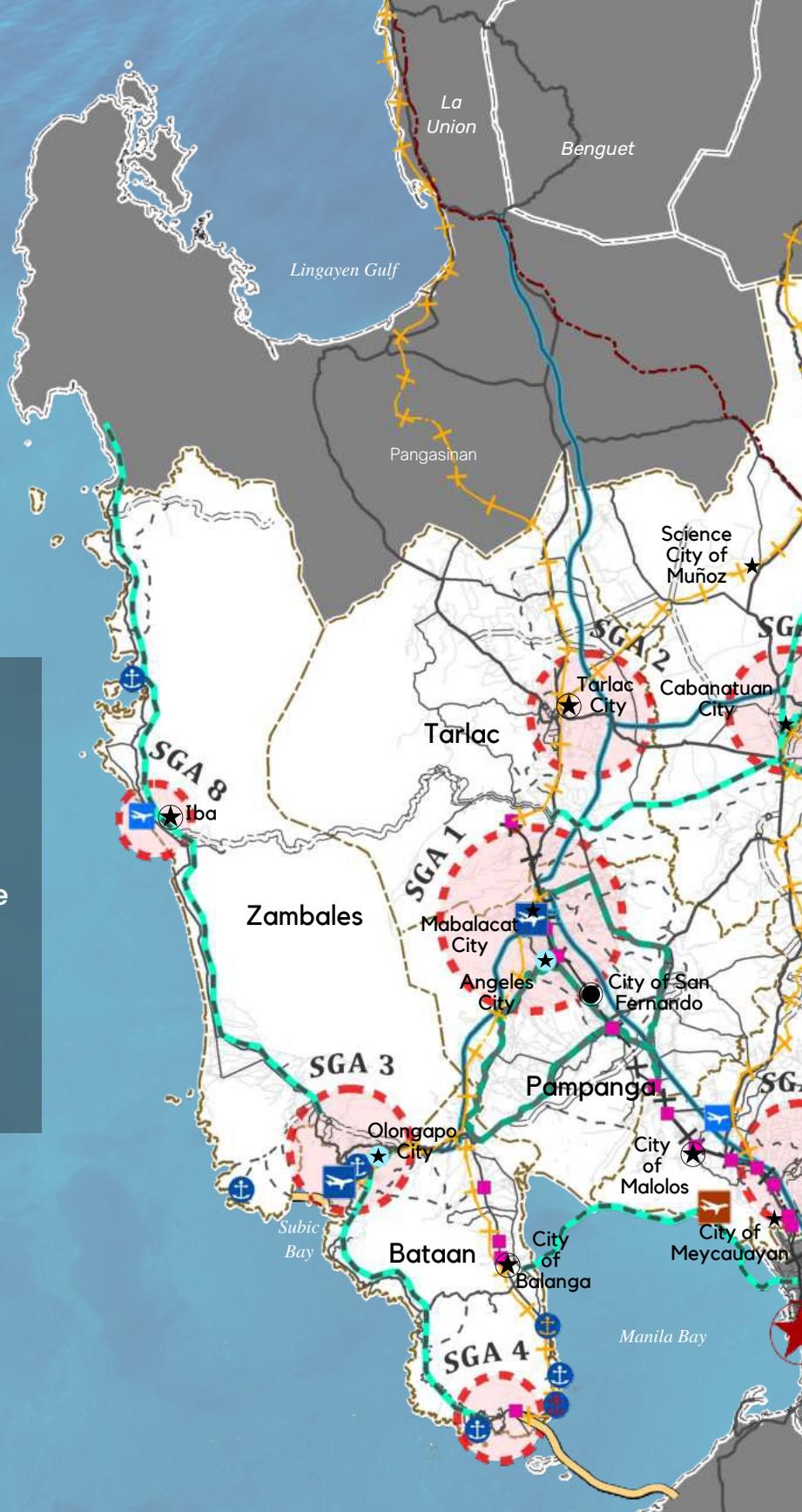
National Capital Region

Overall Land Use Framework Map

LEGEND

- Existing Built-Up Areas
- Settlements Expansion Areas
- Production Land Use
- Protection Land Use
- Provincial Boundary
- Municipal Boundary

Note: Map not to scale



Eight Strategic Growth Areas are determined based on development potentials and comparative advantages. To achieve regional development targets, urban-rural linkages within and among these SGAs will be strengthened.

West
Philippine
Sea



Strategic Growth Areas Map

LEGEND

-  Strategic Growth Areas
- Spatial Transformation**
 -  Luzon Bypass Infrastructure (ICT)
 -  Ongoing Roads Construction
 -  Ongoing: NSCR Phase 1 and 2
 -  Proposed Roads
 -  Proposed Expressways
 -  Proposed Bridges
 -  Proposed Pampanga Mass Transit System
 -  Proposed Railways
 -  Proposed Transit-Oriented Development
- Transport Infrastructure**
 -  Community Airport
 -  International Airport
 -  Ongoing: International Airport
 -  Car/Passenger Cargo
 -  Passenger
 -  Seafront/Shipyards
 -  Primary Roads
 -  Secondary Roads
 -  Tertiary Roads
 -  Provincial Boundary

Note: Map not to scale

FUTURE ILLUSTRATED: **PROPOSED STRATEGIC GROWTH AREAS**

SGA 1

(Metro Clark) - Securing a sustainable and dynamic industrial zone with world-class international connectivity

SGA 5

(Cabanatuan) - Building better economies of scale driven by inter-regional linkages and agricultural innovation

SGA 2

(Metro Tarlac) - Leading the physical and economic integration supported by infrastructure systems vital to growth and sustainability

SGA 6

(Bulacan) - Creating compact development in urban settlements to support economic vibrancy

SGA 3

(Metro Olongapo) - Capitalizing on port infrastructure for advancement in industrial development, tourism, and logistics

SGA 7

(Baler) - Harnessing the rural-to-urban fabric's eco-tourism and agro-industrial potentials in the eastern seaboard

SGA 4

(Mariveles) - Enabling future growth in manufacturing, housing, and suburban living

SGA 8

(Iba) - Harnessing the rural-to-urban fabric's eco-tourism and agro-industrial potentials of Western Luzon

04

MAKING IT HAPPEN





BRINGING THE PHYSICAL DEVELOPMENT PATH FORWARD:

Plan Implementation

A

Review, Approval, and Adoption Process of the RFPF

To commence the RFPF implementation process, the following steps will be undertaken:

01

Copies of the RFPF will be disseminated to all members of Regional Land Use Committee (RLUC) and other stakeholders for review. As the lead of the committee, NEDA will orchestrate the plan review process.

02

The RLUC Secretariat will incorporate in the draft RFPF the comments and suggestions from stakeholders.

03

The subsequent draft of the plan will then be presented to the RDC III Full Council, through the RLUC. Once the document is found sufficient both in form and substance, it will be approved and adopted by the body through a resolution.



B

Integration of the Implementation of the RFPF with the Synchronized Planning, Programming and Budgeting Cycle

Once approved, the thrust, goals and objectives of the spatial plan will be integrated into the regional development planning cycle. It will serve as guide in the formulation of subsequent socioeconomic recovery blueprints which will realize the vision for Central Luzon to become ***a vibrant agri-industrial heartland and global gateway supported by balanced ecosystems.***

Regional Development Plan

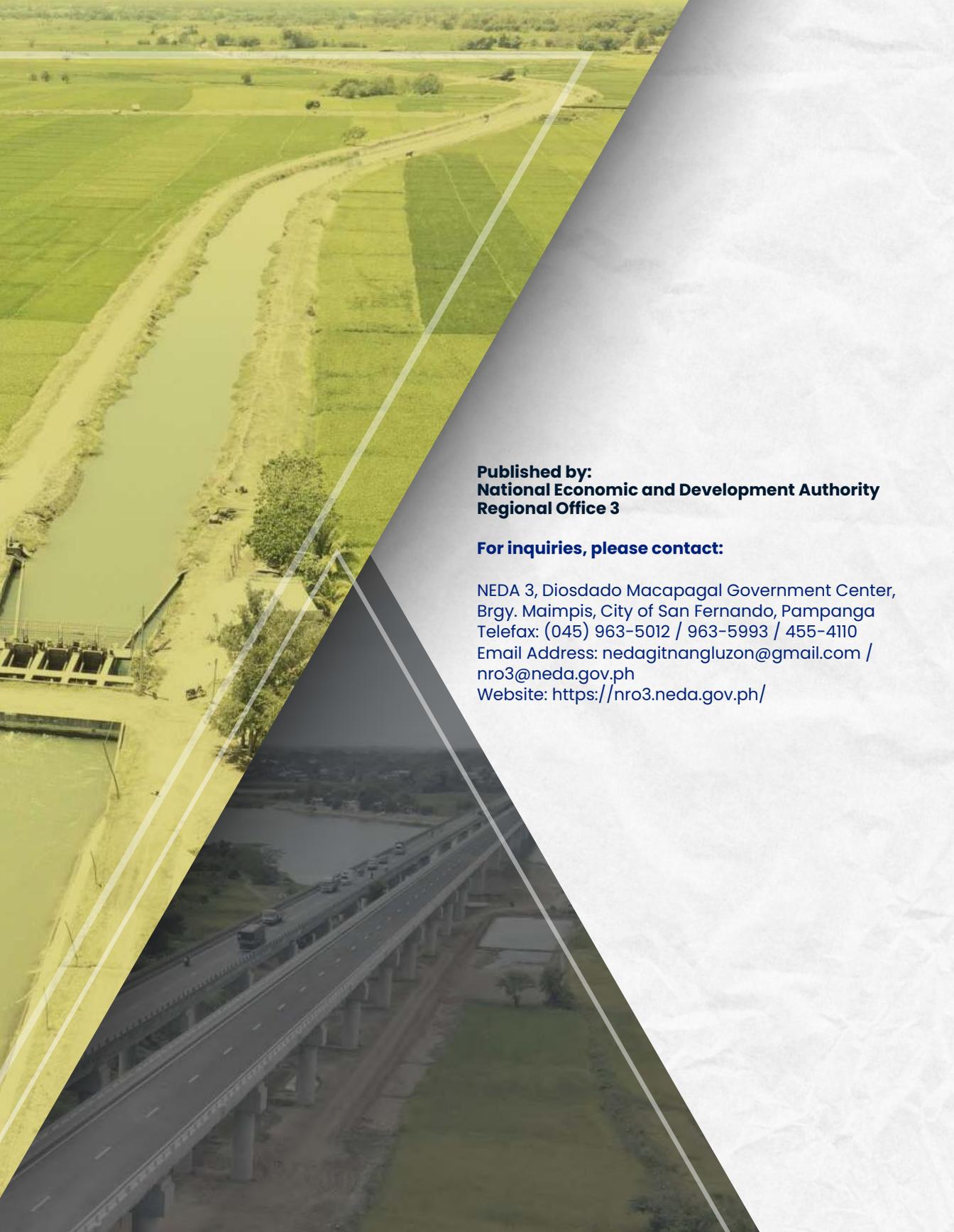
The RFPF will provide the strategic framework that will deal with social, economic, and governance challenges, and herald sound strategies and policy interventions that will advance inclusive growth and sustainable development.

Regional Investment Program

The RFPF will highlight opportunities for spatial integration of programs, projects and activities, and steer the formulation of succeeding public expenditure plans aimed at expanding Central Luzon's infrastructure base.

Budgeting Cycle

The RFPF will serve as a progressive tool for managing public sector resources. Since the spatial blueprint clearly spells out the regional priorities and the direction and distribution of future activities in the region, it will strengthen better acumen to policymakers in recognizing new development needs, revising, modernizing or expanding programs, and supporting the funding and implementation of strategic initiatives that will deliver a finer quality of life for the Filipinos in Central Luzon.



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