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Manila Megalopolis 2021 and Beyond: A Vision Plan Towards Vertical Urbanism



Felino Jr Palafox

Principal Architect-Urban Planner

Palafox Associates,
Makati City, Philippines

Felino "Jun" Palafox, Jr. is the Founder and Principal Architect-Urban Planner of Palafox Associates and the President of Palafox Architecture Group. He has led and managed both firms in the planning of more than 16 billion square meters of land and the architecture of over 12 million square meters of building floor area in 38 countries.

He is educated at Harvard, University of the Philippines, and University of Santo Tomas. He is the President of FIABCI-Philippines and international member of the American Institute of Architects, Urban Land Institute, American Planning Association, International Council of Shopping Centers; and Fellow of CTBUH.

Abstract

Manila, one of the fastest growing cities in the world, grows by 60 persons per hour. Infrastructure, growth centers, and integration have never been more necessary. The Manila Megalopolis 2021 and beyond, a concept plan for the Manila Bay-Pacific Coast Region the author presented at the Harvard Graduate School of Design, puts forward new urban typologies that take advantage of Metro Manila's location nationally and globally by creating urban regeneration clusters through vertical urbanism and prioritizing pedestrians. Potential urban growth centers will be clustered to open up new gateway cities, spur new investments and technical innovations in the metropolitan region, and create economic opportunities in the inner cities.

The author hopes this concept plan will provide the urban vision and call into action more progressive policies, plans, and programs towards a more resilient infrastructure, create a multinational investment climate, and implement pragmatic laws for the region in the 21st century.

Keywords: Growth Centers; Manila; Resilient Infrastructure; Urban Typologies; Vertical Urbanism

Introduction

In 1905, Daniel Burnham planned Manila for a population of 800,000. In year 2000, Metro Manila, with 14 million people at daytime and 10 million at nighttime, is one of the 20 largest megacities in the world. Its population is expected to reach 20 million before 2021. By 2050 the world would have added around three billion more people and the Philippines would have added 54 million more Filipinos. We need to plan for 200 new cities in the Philippines. In a global context, tens of thousands of cities will rise within our lifetime. Seventy percent of the world's population will live in cities, and Manila alone – one of the fastest growing cities in the world – is adding 60 persons per hour (ACTAR arc en reve centre d'architecture, 2001).

Metro Manila's growth in population and production is spilling into the adjacent regions of Central Luzon and Calabarzon. Infrastructure, growth center development and integration have never been more necessary.

Metro Manila, strategically located in the fastest growing region in the world, the Asia-Pacific, can be an urban laboratory for the mistakes made and lessons (to be) learned in urban planning, architecture, and real estate development. Its Asian, European, and American heritage in a developing country setting makes it uniquely different. Some of the global trends, best practices, and revolutionary ideas elsewhere in the world can be appropriately applied to address the country's urban issues and challenges, and to make metropolitan Manila more livable and globally competitive.

Manila Megalopolis 2021 and Beyond is a plan that puts forward a strategy which considers the region's locational advantage nationally and globally. Part of the plan is the development of, among others, urban development corridors and clustering growth centers like the former US military bases Subic and Clark and the opening of new gateways on the Pacific Ocean coastline. This will spur new investment in the region and redevelopment opportunities in the inner cities, creating jobs and economic opportunities – especially for the urban poor.

The author hopes that this concept plan will provide the urban vision and call to action more progressive policies, plans, and programs; create an investment climate; and implement more pragmatic laws for the development of the Manila Bay – Pacific Coast Metropolitan Region in the 21st century.

The Philippines

The Philippines is strategically located for trade and tourism in the Southeast Asian Region. With a total land area of 300,000 square kilometers, stretching 1,839 kilometers from the north to southeast coast of Asia, the Philippine archipelago is composed of 7,107 islands. Floating along the Southeastern rim of Asia, North Borneo, and South of Japan, the Philippines is considered to be the second largest island groups in the world. It is bounded by the South China Sea in the West, the Pacific Ocean in the East, and by the Celebes Sea in the South. Its strategic location makes the Philippines a gateway for trade and tourism to Asia, the West, and the rest of the world.

The country is also blessed with rich biodiversity in forests, caves, mangrove areas, and coastal waters. In fact, it is considered the global center of marine biodiversity. The Philippines also has rich deposits of both metallic and non-metallic minerals underneath its soil. Three percent of the world's copper reserves are from the Philippines, making it one of the top resources around the world.

Filipinos are also considered a valuable resource of the Philippines. Approximately 90% of the population are literate and is one of the few English-speaking populations in Asia, which has contributed significantly as to how the Philippines became second in the world in terms of business process outsourcing and has recently edged out India in being number one in voice call centers.

The Philippines is more than 400 times the size of Singapore in terms of total land area. It is almost 350 times the size of Hong Kong, about eight times the size of Taiwan and three times bigger than South Korea. From the 1930s to the 1970s, the Philippines was no. 2 in Asia next to Japan. Asian countries voted Manila as having the highest development potential and, thus a fitting choice as a financial center to headquarter the Asian Development Bank. This century is supposed to be the "Pacific Century" and the Philippines is right in the middle (see Figure 1).

The Philippines is in a great position being at the strategic center of the Asia Pacific. It was the Asia Pacific hub of Spanish Europe for around 300 years, 50 years the Americans, four years the Japanese, and two years the British.

With a total coastline of approximately 18,000 kilometers, the Philippines has the third longest coastline in the world. To promote efficiency in government, accelerate social and economic development, and improve public service, the Philippines is divided geographically into the islands of Luzon, Visayas, and Mindanao. The country is comprised of 16 regions, 81 provinces, 136 cities, 1,495 municipalities, and 41,995 barangays.

Primacy of Metro Manila

Manila has been one of the world's megacities since the early 1990s. Political power, mass media, and some of the country's top corporations are concentrated in the metropolis. Forty percent of the country's financial institutions are in Metro Manila, and 86% of business establishments are engaged in services.

Metro Manila is the 18th largest metropolitan area in the world, and one of the largest in the Asia-Pacific region. A primate metropolis is one with a population that is ten times higher than the second largest in terms of population. In the case



Figure 1. Map of the world with the Philippines at the center (Source: Palafox Associates)

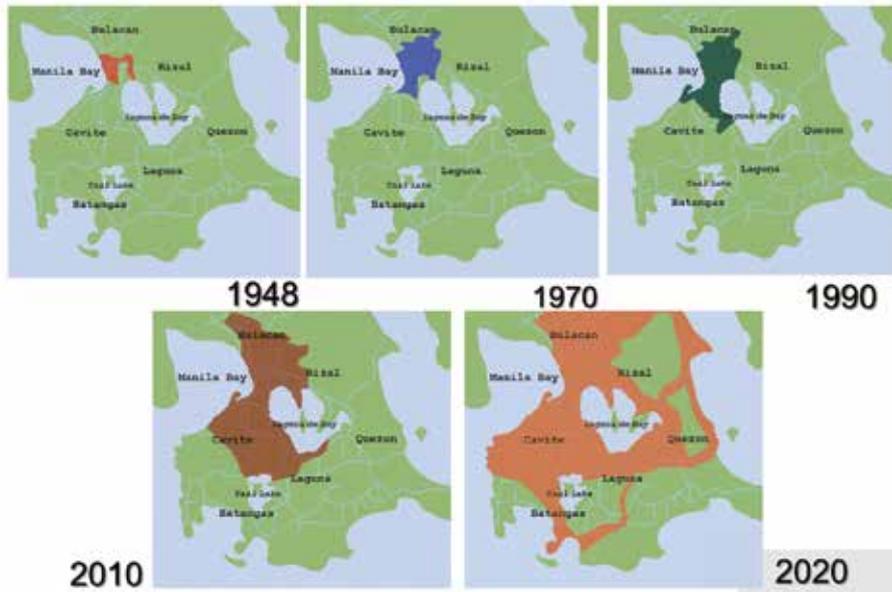


Figure 2. Growth of Metro Manila (Source: Palafox Associates)

of Metro Manila, it is ten times higher than Metropolitan Cebu in the Visayas, which has a population density of 2,280 persons per square kilometer.

Infrastructure cannot cope with Metro Manila's population growth and density, which is over 15,680 persons per square kilometer, about 67 times the national average. The emergence of blighted areas and slums, with all the attendant problems of crime, drugs, violence, and environmental degradation, is the natural consequence of an overly dense population. The land use trend in the metropolis has largely been a response to socioeconomic demands of a

growing population and not necessarily according to plan.

Metro Manila's population increases by almost 450,000 persons every year on the average. It has the highest migration rate among the world's megacities, thus leading to congestion and inadequate infrastructure (see Figure 2).

The metropolis is composed of eight cities and nine municipalities that are subdivided into an inner and an intermediate core. The inner core is bounded by Circumferential Road C-4 (EDSA).¹ The intermediate core² is a physical transition from the inner

core to the less urbanized outer area. It is bounded by C-4 and the projected C-6, which separates the intermediate from the outer core. The outer core is characterized by sprawling communities and agricultural areas and industrial activity. Municipalities in the outer core are located in the provinces of Rizal, Cavite, Laguna, and Bulacan (see Figure 3).

Despite its drawbacks, the capital is often a better alternative to living in the poorer provinces. The incidence of poverty among the population is only 7.6%, compared to 34% for the entire Philippines. Part of the reason why Manila is overpopulated is that there is little opportunity outside it.

The imbalances in the built environment reflect inequality in society. At the city level, there are informal settlements amidst gated subdivisions, with "monster homes" or large homes that incur a higher carbon footprint. Riverbanks, esteros, shore areas, and land near railroad tracks receive pressure for settlement. In a wider scale, there are congested metro areas amidst undeveloped towns and provinces. Ten million people live in Metro Manila, which makes up only 0.21% of the country's total land area. In the period of 1985–1990, Metro Manila received the highest number of in-migrants at 30.61%.

Housing is not recognized as much as a problem of affordability, but more of a problem of lack of supply and access to housing. Not all informal settlers are below the poverty line. Unrelenting are the problems in shortage of utilities such as power, water pollution, and road congestion. At present, many places in the metropolis are crossing the threshold of livable communities. A challenge in Metro Manila is that there is so much wealth amidst so much poverty. There are great contrasts between gated communities, first-class neighborhoods and informal settlements of squatters. The irony is that the Philippines is blessed with abundant natural resources, yet it cannot plan and manage its urban areas and regions with job creation and more equitable income distribution.

Filipinos from all over the country migrate to Metro Manila because of real as well as perceived opportunities. The metropolis is the center of government, religions, trade and commerce, business, finance, higher education as well as cultural activity. Reportedly, the daytime population in the country's financial center, Makati Central Business District, is eleven times higher

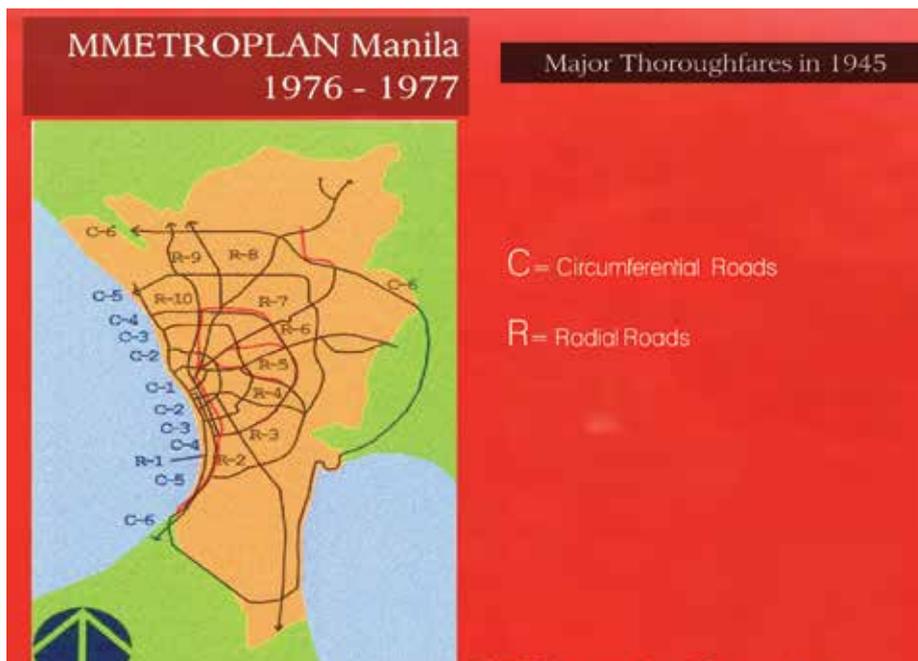


Figure 3. Core cities of Metro Manila bounded by radial and circumferential roads (Source: Palafox Associates)

1. Inner core cities include Manila, Pasay, Caloocan, Quezon, Makati, Mandaluyong, parts of Parañaque, San Juan, Navotas, and Malabon.
2. Intermediate core is composed of the cities of Pasig, Muntinlupa, Valenzuela, Las Piñas, Parañaque, Taguig, Pateros, and Marikina



Figure 4. Night lights of the Philippines showing the primacy of Mega Manila (Source: Palafox Associates)

than the nighttime population. Although economic activity is concentrated, most people cannot afford the high values of land. Every day, roads are strained by the millions that flock to and from the metropolis.

The metropolis has the most serious urban problems. It has to address the challenge of urban congestion. It has always been considered as one of the more 'industrial' cities in Asia. Problems that accompany congestion are pollution of all kinds, the high unemployment rate that reached more than 17% in 2000, poor traffic conditions, and informal settlements. Informal communities control vast amounts of dead capital that reportedly amount to US\$133 billion.

Traffic schemes such as the vehicle plate number coding are implemented to lessen the number of vehicles on the road, but still the major thoroughfares experience congestion particularly during peak hours. Time spent on travel accounts for loss in productive hours that result to lower real income and purchasing power. The physical separation of the place of work and residence results in less time for actual work and the additional aggravation attendant to the inconveniences of long commutes.

Every year, workers can spend up to 1,000 hours in traffic (3-5 hours/day) and thousands of pesos are lost on transportation costs alone. Relocation policies, whether through private or government efforts, are inappropriate because workers are placed far away from their places of work.

Inequality among regions has led to the flight to Metro Manila from the suburbs every day to and from work, and from rural areas to urban areas.

Residential populations of Regions III and IV are in Metro Manila during the day and go home at night. Some of these are in the growth centers of Cavite, Santa Rosa, Calamba, and around Laguna Lake (see Figure 4).

Urban congestion has caused problems like flooding, waste disposal, road density, and traffic congestion. Transportation, utilities, and urban services cannot cope with the huge population and rapid growth.

Conditions vary for regions in relation to Metro Manila. Local government units have more authority but are still financially dependent. There are no capital outlays. Expenses are concentrated on maintenance and salaries of local government officials. As a whole, they have been very dependent on the Internal Revenue Allotment (IRA) from the national government.

Because other provinces and regions have been ignored, they have been getting less exposure, less investments, and less infrastructure development. Issues in employment can be traced to a mismatch of graduates and industry skills, underemployment, and high unemployment rates.

Opportunities in growth centers outside Metro Manila

Two out of five persons in the country are residents of NCR, Central Luzon, or Southern Tagalog. What is common in developing countries is that the decrease in population and production in the main

city is accompanied by an increased concentration within the wider core region. As the metropolis approaches saturation, population growth has slowed within Manila and shifted to its periphery, accelerating to nearby and accessible provinces. Many areas surrounding Metro Manila such as Dasmariñas in Cavite, and Santa Rosa in Laguna have grown at about 10% annually in recent years. Metro Manila's sprawling at the edges is estimated at 250,000 persons a year, making it equivalent to the population of a new city.

Central Luzon and Southern Tagalog's population are expected to double in less than 20 years, if they maintain their average growth rates. Population size and density affect the high value of land in Metro Manila and the disparity between day and nighttime populations.

The three regions combined contribute 39% of the national population and 22% of national land area. The extended metropolis is the size of Ireland, double the size of the Netherlands, and a hundred times bigger than Singapore.

NCR, Central Luzon, and Southern Tagalog form together the Central Industrial Region (CIR). From the seventies, the three regions were envisioned to be the country's drivers of growth. However, no plan has been effective in connecting them. Before the 1970s, the trend of focusing on CIR was prompted by policies and the preference for certain industries to be located in certain locations. It was then that regional awareness was triggered. Even today, however, this awareness is still waiting for implementation and solutions. Between 1972 and 1975, the three regions accommodated 60% of industrial employment, over 40% of industrial and service establishments, over two-thirds of industrial output, over half of service employment, and three-fourths of service output.

Before the 1960s, the Greater Manila Area, Cagayan Valley and the frontier areas in Mindanao were the top recipients of immigration from the rest of Luzon and the Visayas regions. In the 1960s to 1970s, Mindanao was second to the Greater Manila Area, and Cagayan lost some of its attractiveness. Between 1970 and 1975, both Southern Tagalog and Central Luzon improved rankings in net migration. In the mid-seventies, Cagayan Valley started to suffer a net outflow.

In 1990, the national government recognized the need to decongest what was then known as the Greater Manila Area. Business was to

be dispersed within a 50-kilometer radius, thus identifying the CALABARZON area. Metro Manila encroached into areas beyond its official boundaries. Major developments moved from the northeast to the south and shifted the boundaries up to Santa Rosa, Laguna.

Urbanization is expected to reach the western section of Laguna, along the SLEX, by 2010. It is expected to reach the locations of industrial estates and along Laguna de Bay, where most manufacturing and agricultural processing take place.

The Southern Luzon provinces anticipate urbanization by 2021. Should Aurora and Quezon be opened as gateways from the Pacific Ocean, growth and development would be distributed more evenly in the north and south of Metro Manila.

Mistakes made and lessons to be learned

The country has had missed opportunities in urban planning such as the Burnham Plan of 1904-1905 and the Major Thoroughfares Plan, which was probably the first transport road-oriented and metropolitan-wide plan. The 1971 United Nations Development-assisted Plan had the thrust of regional development. There have been many individual and sectoral studies but they were fragmented and did not seem to have a comprehensive development plan in terms of time, location, area of coverage, and finances. Development plans in the country are constrained to the sectoral and the short-term (see Figure 5).

The imbalances and the rigid zoning are a symbol of national fragmentation, lack of connectivity and accessibility, and urban sprawl. There are inefficiencies and high costs of doing business due to the poor quality and lack of infrastructure, planning, and poor metropolitan governance.

The physical separation of the place of work from residences for many Metro Manila workers also creates a social problem since family members are taken away due to time spent in traffic and need transient homes in the city during weekdays.

With exclusive zoning, the urban poor are misplaced. In progressive cities, such as in the state of Massachusetts, anti-snob inclusionary zoning is practiced. In new developments, at least 10% is allocated to low-income groups. There seems to be a form of cross subsidy for low-income groups. Different income classes are integrated, thus resulting in better communities.



Figure 5. Daniel Burnham's Plan for Manila, 1905 (Source: Palafox Associates)



Figure 6. Rockwell Center, a mixed-use vertical urbanism project by Palafox Associates in the city of Makati (Source: Palafox Associates)



Figure 7. Central Business Districts in Metro Manila (Source: Palafox Associates)

Concepts of “New Urbanism” and Vertical Urbanism address the ills of the current urban expansion and development pattern evident in many cities and metropolitan areas today. Development in the form of more compact, walkable neighborhoods, cities and towns is advocated. Such places should have clearly defined centers and edges. The center, necessarily, includes a public space, public buildings such as a library, a medical clinic, a playground or sports center, a public transit stop, and commercial, retail, and business uses. Also, streets should be laid out as an interconnected network, fanning coherent blocks where building entrances front the street rather than parking lots. Public transportation should connect neighborhoods to each other, the central city, and the surrounding region.

A wide spectrum of housing options should enable people of a broad range of incomes, ages and family types to live within a single neighborhood, town or city. This encourages a healthy interaction or bonding among various kinds of people, resulting in a community, which cherishes socio-civic values. What should be avoided are large developments featuring a single use or serving a single market segment. New Urbanism is concerned with the pieces

and the whole in applying its planning principles in both the neighborhood and the entire region.

With vertical urbanism, cities are allowed a more efficient use of land and transit, shorter utility lines, and maximization on the use of water, sewerage, and drainage. Above all, it allows workers to be near their place of work, saving not only travel time, but their money as well. Where there are higher densities of jobs, you should have higher-density housing as well. In the Philippines, unfortunately, there is no integration between transportation planning, land use, and density in Metro Manila, resulting in unchecked urban growth and difficulty in people mobility (see Figure 6).

“Private-led vertical urbanism in the Philippines,” a paper I presented at the 2012 CTBUH Conference, has been the prevailing trend in the last 30 years, evidenced by the increasing number of Central Business Districts (CBDs). In fact, Jones Lang Lasalle’s Research & Consultancy reported that there are eight emerging CBDs in Metro Manila alone: Metropolitan Business Park in Pasay, Asiaworld City and Aseana Business Park in Parañaque, Nuvali and Southwoods City

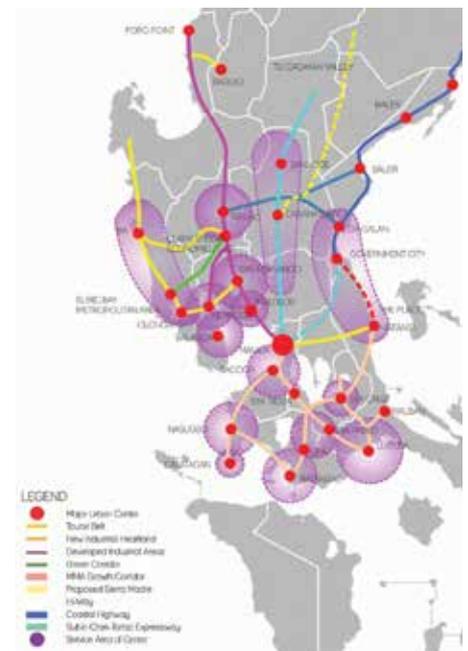


Figure 9. Growth centers and major urban centers (Source: Palafox Associates)

in Laguna, Arca South in Taguig, Circuit Makati in Makati, and Capital Commons in Pasig (see Figure 7). These CBDs will be built on the principles of vertical urbanism as an answer to the country’s continuously growing BPO industry, public-private partnerships, and tourist influx.



Figure 8. CBD skylines: (Top) Makati Skyline, (Middle) Ortigas Skyline, (Bottom) Manila Skyline (Source: Palafox Associates)

Another eleven emerging business districts outside Metro Manila will be added to the roster: Clark Green City, Alvierra, Global Gateway Logistics Center, and Capilion in Pampanga; Atria Park Distric and Iloilo City Center in Iloilo, Altaraza in Bulacan, Aboitizland Cebu, Citta de Mare, and South Reclamation Properties in Cebu; and Matina IT Park in Davao. All these business districts are expected not just to meet the growing favorable climate, but also towards sustainable long term growth (see Figure 8).

Recommendations

Recognizing the interdependence and the need for better connectivity, interregional and intermetropolitan cooperation among the various levels of government – national, regional, provincial, city, municipal and barangay/barrio – should take place. Tri-folding collaboration among the government, the private sector, and civil society should be ensured for more integrated urban, metropolitan, and regional development.

Growth centers and potential corridors are identified as ‘counter magnets’ to

the congested Metro Manila. They are envisioned to enhance its livability and global competitiveness. This paper addresses the “pull and push” factors and immigration in Metro Manila. The project aims to appropriately apply the best practices in urban planning, real estate development and urban governance elsewhere in the world (see Figure 9).

Strategies:

- 1. Creating urban development corridors for urban development and “wedges,” areas between these corridors, for agriculture and tourism.
- 2. Linking roadways, ports, and airports to improve regional, international, and global competitiveness.
- 3. Clustering cities/growth centers linked by development corridors for more competitiveness.
- 4. Information and Communications (ICT) enabled development in growth centers like Clark and Subic bases.
- 5. Poverty Alleviation
- 6. Enhancing urban governance
- 7. Improving metropolitan/regional

cooperation between and among barangays, towns, cities, provinces, and regions.

- 8. Providing infrastructure to connect cities and growth centers.
- 9. Reforming obsolete planning and development practices, zoning, and deed restrictions.
- 10. Innovating the educational system. Modernize and innovate taxable world class university belts in growth centers – with athletic fields and research laboratories – that can spillover into business parks.
- 11. Improving mobility and access
- 12. Environmental Protection
- 13. Urban Renewal/ Redevelopment
- 14. Cultural Development
- 15. Encouraging cooperation among the government, the business sector, and civil society
- 16. Social Development
- 17. Redeveloping and remediating brownfields in former military bases and industrial areas
- 18. Developing entertainment areas, higher density residential,

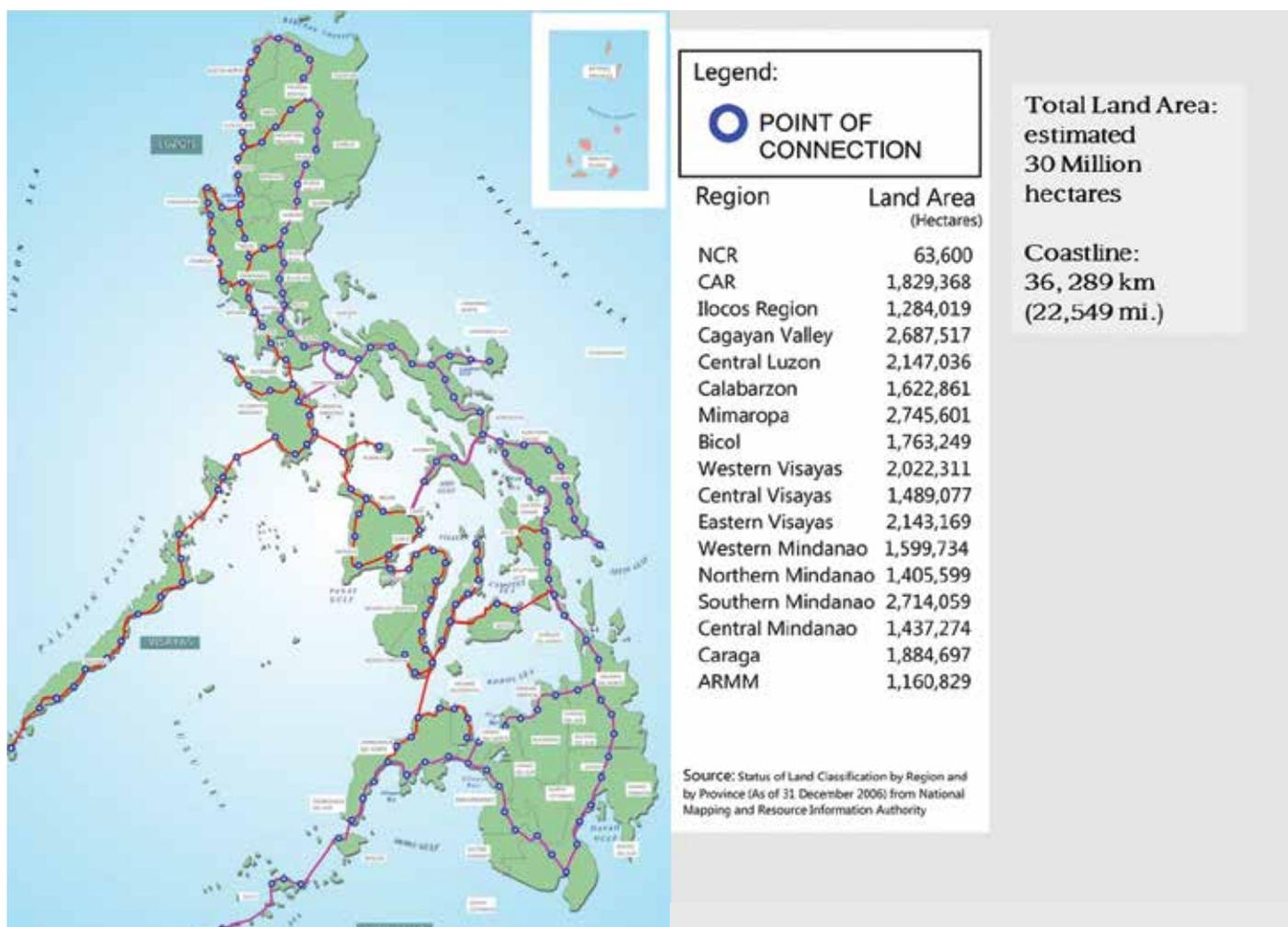


Figure 10. Interconnecting Luzon, Visayas, and Mindanao (Source: Palafox Associates)

commercial/retail redevelopment, more open spaces, and more port development

- 19. Wider citizen participation
- 20. Making the waterfront as a front-door of development, not “back of the house”

Wedges will be created to maintain agricultural, agro-tourism, eco-tourism, and prime agricultural areas. The interdependence between agricultural and urban areas will be strengthened rather than having the parasitic relationship that exists today. High value crops and modern farms will be created (agropolitan approach to development).

The development strategies will try to address national goals, while at the same time introducing better security, efficiency, and global competitiveness. The plan is proposing “Vision 2021”, including a Pan-Philippine railway system and 100 new towns on the Pacific coast in Luzon, Visayas, and towards the Sulu Sea in Muslim Mindanao. (see Figure 10.

The strategy of urban corridors and agriculture and tourism wedges is for a more balanced interrelationship between the urban and rural, the countryside and hinterlands, tourism, agriculture, and the development of the environment.

Conclusion

The study has shown that there is so much left to be planned and developed in the Central Luzon and Southern Tagalog regions and redeveloped in Metro Manila.

Connectivity integrating the expanded metropolitan region would help realize the high development potential of the expanded metropolitan region. The best practices in urban planning and real estate development will stimulate new growth and development, and rehabilitate older cities. The towns, cities, provinces, and regions are victims of obsolete planning laws, zoning codes, and subdivision deed restrictions. Exclusionary zoning has fragmented the metropolis, disconnected communities, and segregated places of work from places of residence. The large single family homes in the inner cities encourage air pollution by preventing more families from living closer to the central business districts and thereby resulting in more urban sprawl encroaching into farms and forests.

The former US military bases Clark and Subic towards Pacific Coast in Dingalan can act as international hubs and growth centers to spur new development outside Metro Manila. The development corridors will open up the Pacific Ocean as a new gateway and create opportunities in the less developed eastern seaboard.

Urban development corridors and growth centers in the extended metropolis can act as counter magnets to congested Metro Manila. They will alleviate urban issues and challenges of Metro Manila and enable the older cities for urban renewal and redevelopment to accommodate re-investment and make the older cities more livable and competitive.

Agricultural production will have easier access to markets with the development corridors and growth centers. Tourism destinations will also become more accessible. With economic development and wealth creation, jobs and a more equitable distribution of income will be more attainable.

Collaboration and partnership in the metropolitan region among local jurisdictions, the national government, private sector, and civil society will help develop and better integrate the expanded metropolitan region and spur urban growth and development. The concept plan 2021 will call to action all stakeholders – the government, business sector, and civil society – to realize the high development potential of the Manila Bay – Pacific Coast Metropolitan Region.

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