

CLARK

The vision of a modern Philippines

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A city that breathes

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Resilient Growth

Developers of New Clark City aren't just taking a long- and 360-degree view of resiliency—they're making it into a reality

CLARK - THE VISION OF A MODERN PHILIPPINES





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Clark-The Vision of a Modern Philippines

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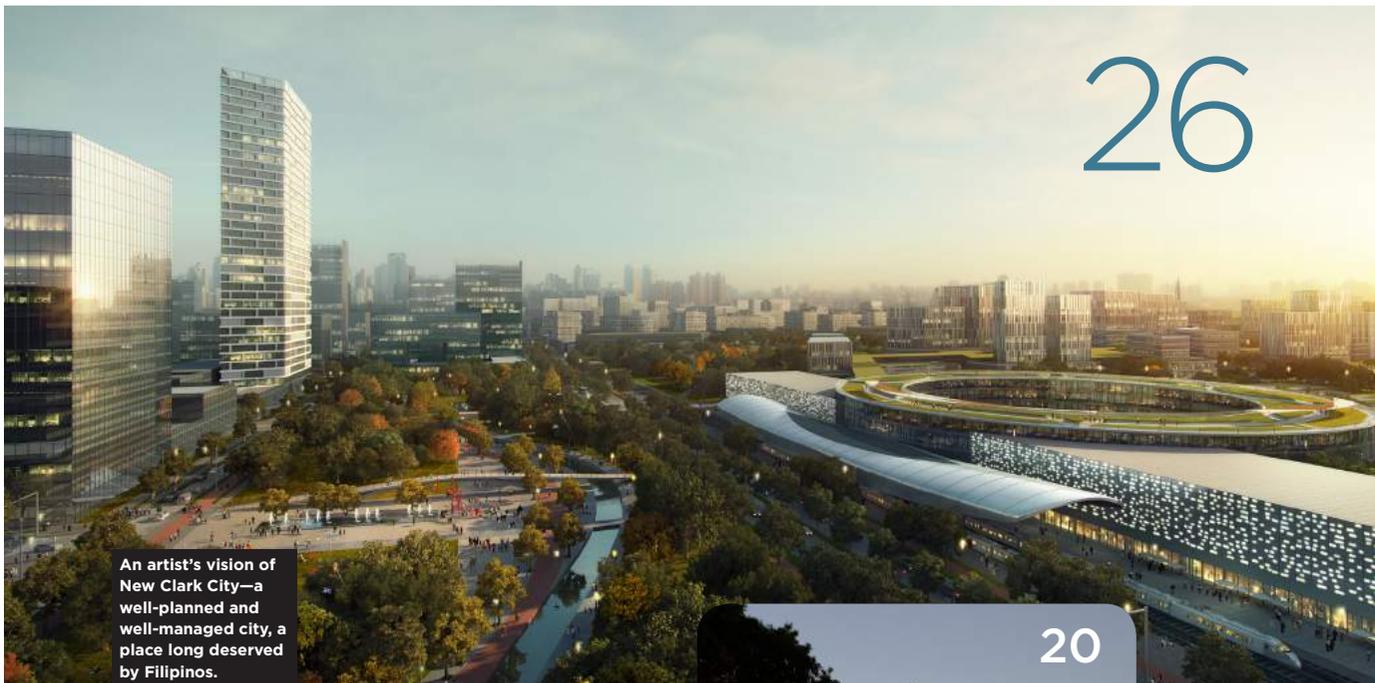
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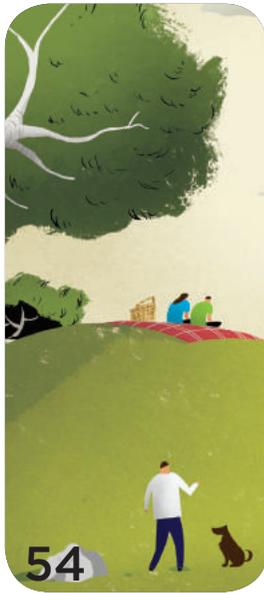
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Track Record of Success

Tip of spear for growth initiatives

Bases Conversion and Development Authority (BCDA) is committed to serving and giving the Filipino the best, and claiming the Philippines' stake in the realm of global economic competitiveness.

Essentially, BCDA is tasked to strengthen the armed forces while building great cities with the conversion of former military bases into globally competitive investment centers, optimizing revenue generation from the disposition of former Metro Manila camps, and creating opportunities for employment in Central Luzon. While faced with a myriad of challenges not normally experienced by government agencies, BCDA continues to prove itself as one of the most successful government agencies in attracting investments, creating jobs for the Filipino, and upholding proper stewardship and honest governance.

It is one of the lead agencies in the Build, Build, Build infrastructure program of the Duterte administration, vastly contributing to the creation of development efforts in the country. These public-private partnerships have given rise to vital public infrastructure, economic centers such as airports, seaports, and major business and residential real estate developments—all of which have allowed BCDA to help strengthen the Armed Forces while building great cities.

Among its big ticket projects included in this program are the Clark International Airport Expansion, Subic-Clark Railway, Bonifacio Global City to Ninoy Aquino International Airport (BGC-NAIA) Bus Rapid Transit System, and New Clark City.

New Clark City is the latest and most ambitious of these projects to date—a master-planned community north of Metro Manila designed as a solution to the vast and varied urban challenges met by its residents on a daily basis.

This publication gives readers a comprehensive look at the scale and immense prospects that come with the development of New Clark City. We hope you enjoy reading it as much as we enjoyed putting it together for you.

BCDA Group is composed of Clark Development Corporation, Clark International Airport Corporation, John Hay Management Corporation, Poro Point Management Corporation, and North Luzon Railways Corporation. It is led by the Bases Conversion and Development Authority (BCDA), a Philippine government instrumentality vested with corporate powers under Republic Act (RA) 7227 (Bases Conversion and Development Act of 1992), signed into law by former President Corazon C. Aquino on March 13, 1992. The BCDA Charter was amended by RA 7917 in 1995, and further amended by RA 9400 in 2007.

Let the Philippines work for you

Mandated with the task of converting former military bases into self-sustaining and premier centers of economic growth, BCDA employs and partners with only the best, the brightest, and most reputable. Alongside the world's most formidable design and development conglomerates, BCDA is building world-class business and residential centers, special economic zones, and game-changing infrastructure that can be utilized by and benefit the Filipino people for generations to come.

**FASTEST GROWING ECONOMY
IN THE REGION**

6.9%

GDP Growth - 3rd Quarter 2017

HUGE MARKET

105 Million

Philippine Population

**YOUNG, EDUCATED, ENGLISH-
PROFICIENT WORKFORCE**

23 Years Old

Median age of the entire
Philippine Population

INCREASING PURCHASING POWER

\$3,000 USD

Current GDP per Capita

INVESTMENT GRADE RATING

BBB

FITCH

VAST LAND

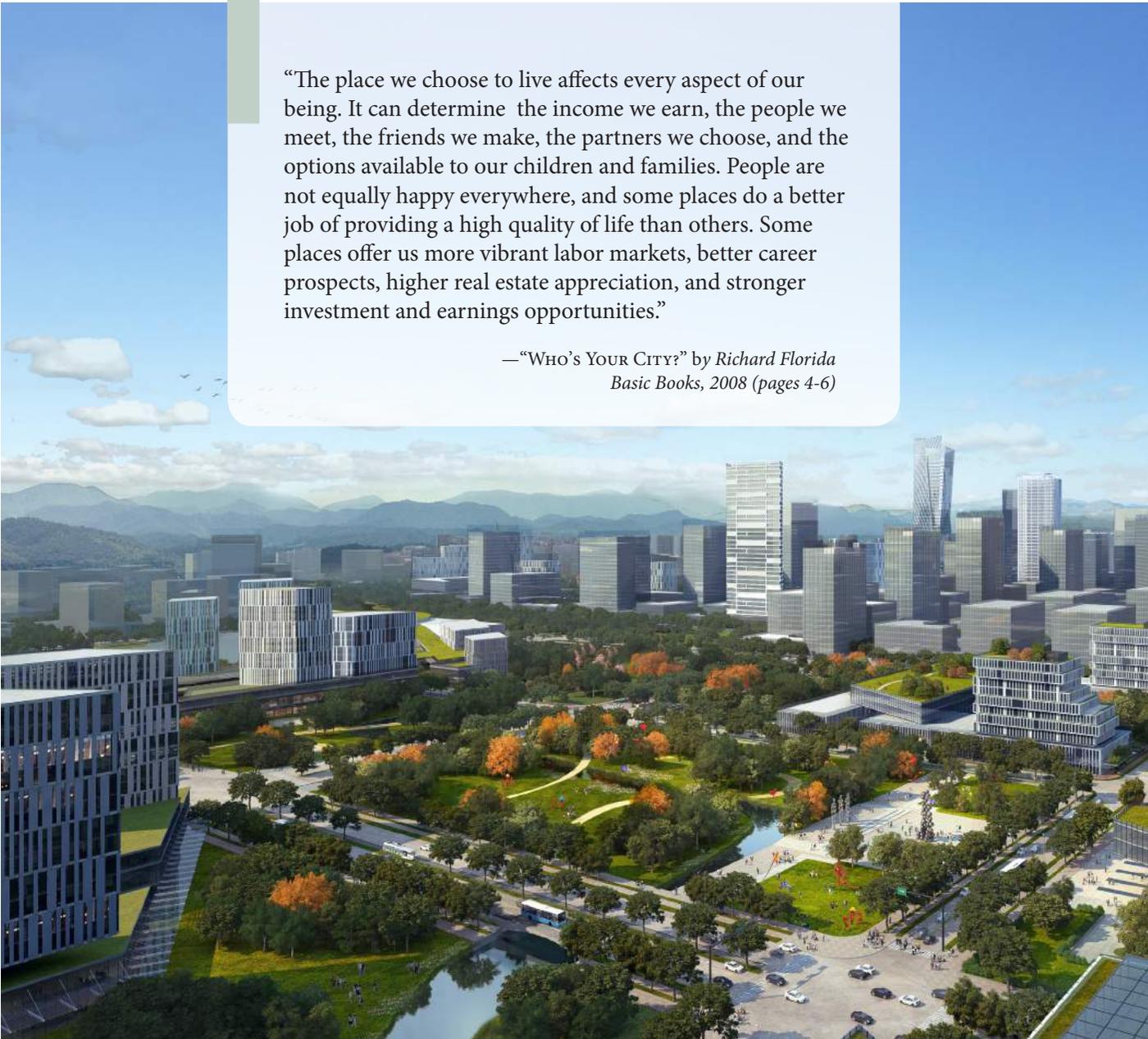
35,000 ha

Clark Special Economic Zone

“T

“The place we choose to live affects every aspect of our being. It can determine the income we earn, the people we meet, the friends we make, the partners we choose, and the options available to our children and families. People are not equally happy everywhere, and some places do a better job of providing a high quality of life than others. Some places offer us more vibrant labor markets, better career prospects, higher real estate appreciation, and stronger investment and earnings opportunities.”

—“WHO’S YOUR CITY?” by *Richard Florida*
Basic Books, 2008 (pages 4-6)



CATALYST FOR NATIONAL GROWTH

BELT OF PROGRESS

BCDA's Project from North to South
feature a varied mix of infrastructure and land development





Landmark projects

The BCDA Group, along with partners from the private sector, handles government resources and builds sustainable urban communities with transparency, efficiency, and impeccability.



Bonifacio Global City in Fort Bonifacio

Bonifacio Global City or BGC in Taguig, south-east of Metro Manila, once called Fort McKinley, is one of the country's premiere business and residential districts—one to rival the world's finest. This reincarnation began when BCDA entered into a partnership with Ayala Land Inc. and Evergreen. The development has a combined gross floor area of 1.8 million square meters, or 240 hectares, upon which is built a diverse, eco-friendly, and

cosmopolitan array of destinations: Serendra, a European-inspired community composed of 65% landscape greenery; the interactive and state-of-the-art Mind Museum; Bonifacio High Street, a top-notch block type shopping mall with excellent restaurants and retail shops; and several township projects, such as Megaworld's McKinley West and Uptown Bonifacio and Federal Land, Incorporated's Veritown Fort, further increasing property values within the area.



by the numbers

Since its creation in 1992, the Bases Conversion and Development Authority (BCDA) Group has been steadily successful in transforming former U.S. Military bases into thriving centers for civilian use. Attracting billions in investment, creating hundreds of thousands of jobs, and upholding proper stewardship and honest governance.



1 Million

Jobs Generated
2016

\$10 B

Asset Value
2016

\$4 B

Investments in
Ecozones
2016

1,000

Locators in
Ecozones
2016

\$7 B

Exports
Generated
PROJECTED FOR 2017

35,000

Hectares
Land Holdings
2016

Infrastructure Projects



1 Tollway



2 Seaports



3 Airports

Proceeds from the disposition of these Metro Manila camps are remitted to the National Treasury, and disbursed for military modernization programs and other programs to benefit soldiers.



McKinley Hill

Over the past 10 years, investment values of McKinley Hill—the 50-hectare development just outside Bonifacio Global City—have appreciated 228 percent. McKinley Hill is a residential and office development led by Megaworld Corporation, one of the Philippines’ leading real estate companies. Created with a township concept, McKinley Hill merges live-work-play-learn-shop experiences with condominiums

both high and mid-rise, the McKinley Hill Cyberpark (an accredited Philippine Economic Zone), the headquarters of the Philippine Chamber of Commerce and Industry, the sprawling Venice Piazza Mall, and the British, Korean, and Qatar embassies. The Philippines’ first world-class football field, McKinley Hill Stadium, is also located here—FIFA-certified, it has an area of 15,000 square meters and can seat more than 1,750.



Newport City

Home to several entertainment, leisure and business establishments and located across the Ninoy Aquino International Airport (NAIA) Terminal 3, the 25-hectare Newport City is a Php 7.4 billion integrated airport-related development. Masterplanned to accommodate parks and gardens—buildings occupy only 40 percent of this low-density enclave—Newport City is where some of the most upscale destinations are located: Maxims, Marriott Hotel Manila, and the headquarters of international cruise line operator Star Cruises. It is most known for Resorts World Manila, a joint project of AGI subsidiary Travellers International and leading Asian realtor Genting Hong Kong. Gaining the reputation of being the “Leisure Capital of the

Philippines,” Resorts World boasts of an upscale shopping mall, international themed restaurants, casino, and a state-of-the-art performing arts theater—a veritable Las Vegas in Metro Manila.

It’s another testimony that private partnerships work, this time with Megaworld Corporation. A stone’s throw away from the Makati Central Business District and the thriving Bonifacio Global City, but far enough from the congested centers of Metro Manila. Newport City will have a total of 6,100 condominium units when fully built up.



Subic-Clark-Tarlac Expressway (SCTEX)

The development of SCTEX is not only a boon for industries and businesses, but a welcome improvement for all motorists: The longest expressway in the Philippines at 93.77 kilometers, it has transformed the Central Luzon region into a foremost logistics hub in the Asia-Pacific. With the SCTEX, the integration of economic activities among Subic Bay Freeport, Clark Freeport Zone, and Central Techno Park in Tarlac (near CFZ) becomes swift and seamless. The expressway is also equipped with a 24/7 mobile patrol with eight relay stations, speed tracking

radars, traffic management teams, night driving features, 24/7 emergency medical services, and towing services.

To make this possible, BCDA partnered with the Manila North Tollways Corporation (MNTC) and its holdings companies Metro Pacific Tollways and Metro Pacific Investments Corporation (MPIC) in 2011. SCTEX's operation and management for 33 years will be under MNTC, relieving BCDA of the PhP34B (\$1.4T) debt to the Japan International Cooperation Agency for its construction.



John Hay Special Economic Zone (JHSEZ)

More popularly known as Camp John Hay, JHSEZ is one of Baguio City's main attractions. It's 247 hectares of lush foliage and breathtaking scenery—all made even more charming due to the crisp Baguio air, quaint mountain architecture, and warm hospitality of the locals. With its transformation into a special economic zone the JHSEZ became a magnet for businesses. Over the last six years, locators have increased by 54 percent, with a total of 120 business enterprises

in the area as of December 2016. Home to prime hotels, restaurants, BPO (business process outsourcing) firms, adventure and cultural destinations, and a world-class golf and country club, the property is managed by BCDA through its subsidiary John Hay Management Corporation (JHMC). Located 5,000 feet above sea level JHSEZ is accessible via air or land (an hour-long flight to Loakan Airport, or a four-hour drive via NLEZ and SCTEX).

These communities all greatly contribute to national growth, providing valuable employment, and attracting billion-dollar investments.



Poro Point Freeport Zone (PPFZ)

Located in Northern Luzon and managed by BCDA's implementing arm, Poro Point Management Corporation (PPMC), PPFZ is both a high-end leisure estate as well as an international gateway poised for trade, business, and more tourism by 2020. Most known for a 65.5 hectare tourism complex that was awarded to Thunderbird Pilipinas, that development boasts of a Mediterranean-inspired hotel, an arresting seaside landscape, a nine-hole golf course designed by International Management Group, and a 24/7 gaming facility. Thunderbird has likewise embarked on its first real estate venture,

The Point Residences, which covers 15 hectares PPFZ also has an airport—San Fernando Airport—and a seaport, with three piers. These access points make it an ideal springboard for Southeast Asian markets: PPFZ is only one and a half hours away from Hong Kong, Vietnam, and Taipei; three and a half hours away from Japan, Singapore, and Korea; and four hours away from Malaysia, Thailand, and Indonesia. The latest addition to PPFZ is a baywalk, launched on Valentine's Day 2016, which spans 1.3 kilometers. Certain to attract even more locators and invigorate the area with human activity, the baywalk features an events center, bicycle lane, parks, playgrounds, gazebos, a picnic area, and commercial strip.



Clark Freeport Zone



‘Everything Clark’ sums up the lifestyle that CFZ and its environs offer locators and residents

Clark Freeport Zone (CFZ)’s potential as “Asia’s Newest Gateway”, thanks to its expanded airport and strategic location, is unparalleled.

It is accessible by air, land (through the North Luzon Expressway (NLEX), and SCTEX, another BCDA project), and sea (through nearby Subic seaport). Investment opportunities from aviation-related enterprises, light industry semi-conductors, tourism and infrastructure abound. Incentives from government are likewise given to CFZ locators: tax and duty-free importation of equipment and materials; preferential income tax rate of five percent of gross income earned; 100 percent foreign equity allowed for various industries; special customs territory, allowing for free flow of items; and unlimited duty-free goods consumption.

Texas Instruments, for one, now has a Philippine product distribution facility (PDF). Before this PDF, finished products had to be shipped to Singapore, repacked, and then distributed to the rest of the world. Double handling in terms of distribution has been eliminated, thanks to the PDF. Nanox, meanwhile, a subsidiary of Japan Display, Inc., maker of LCDs for phones and tablets, is now employing 9000 people, and holds the distinction of being the biggest employer in Clark.

With the increased activities in the Zone from tourists to businessmen, several hotels are also being constructed: the Marriott; Hilton hotel (located on top of the mountain overlooking a 36-hole golf course); a hotel and condominium units with 373 rooms and 508 units respectively, care of Korean-based construction firm named Posco; luxury hotel Mirej, and Royce Hotel and Casino. The Mimosa project, operated by Filinvest, one of the biggest real estate developers in the Philippines, is also under development. It’s a 200-hectare resort facility that will feature a lifestyle mall, business park, high rise apartments, a golf course, high end villas surrounded by a lake, a hotel and casino, and Convention Center. These are all aimed toward making Clark a MICE (Meetings, Incentives, Conventions and Exhibits) destination.

There are investments—PhP2B worth—being poured into theme parks, as well, such as Aqua Planet Theme Park and Clark Safari Park. PhP1.3B has been allocated for new roads, and a luminous bike path spanning 3.6 kilometers from Friendship Avenue to Parade grounds will be laid out. Beyond business, Clark is becoming a lifestyle



The world famous Hilton Clark Sunvalley Hotel will soon open inside the Sunvalley Resort in Clark Freeport Zone



Clark Global City is a state of the art, 177-hectare master-planned, mixed use Business Center of Excellence in Clark Global City, Pampanga

destination. Everything can be found inside its 4,400-hectares—schools, an international airport, industrial parks, tourist destinations, places of worship and recreation—within reach in seven to 10 minutes.

Here, traffic, crime, and pollution—three factors that are the bane of urban living—are non-existent, which makes Clark and its environs a shoo-in for business locators and individuals seeking a change from congested cities.

2,100
Hectares

929
Locators

102,000
Workers

\$7 B
Exports Generated
PROJECTED FOR 2017

TOP EXPORTERS

SFA SEMICON
\$1.4 B
SFA Semicon
(Samsung)

TEXAS INSTRUMENTS
\$980 M
Texas Instruments

Nanox PHILIPPINES INC.
\$508 M
Nanox Ph

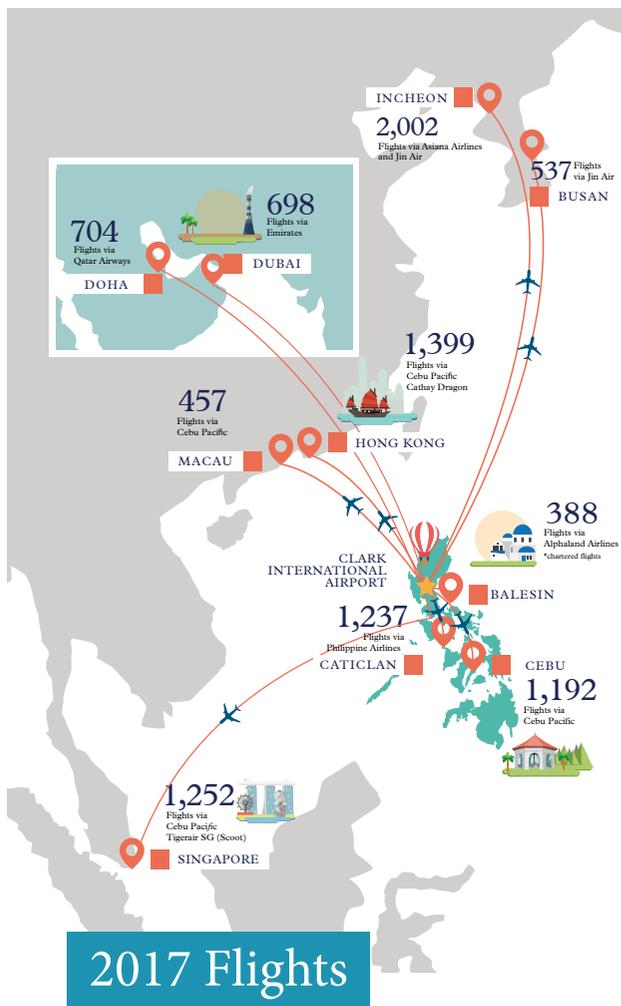
YOKOHAMA
\$124 M
Yokohama



Clark International Airport



CRK is one of the
gamechangers in the
boldest infrastructure plan
in this country's history



Clark International Airport is part of the Duterte administration's Build, Build, Build's comprehensive infrastructure development program, a massive undertaking that has at least 75 major projects in the pipeline.

Indeed, CRK is on the trajectory to become one of the biggest aviation complexes in Asia. Located at the heart of Central Luzon, CRK is easily accessible by shuttle bus from various points of Metro Manila and North Luzon. Its runways (both 3,200 meters long) can easily be extended to four kilometers to accommodate wide-bodied aircrafts. The airport area itself is 2,300 hectares. Already present in CRK are, among others: Gate Gourmet, the world's largest in-flight catering service provider; maintenance provider SIA Engineering Philippines; and Clark Airport Service Support Corporation, for ground handling.

Able equipped with features such as terminal radar approach control, navigational aids, meteorological equipment, airfield ground lighting system, and crash, fire, and rescue facilities, CRK sees more developments as BCDA and its partners

continue to pump up support and services for the airport. Airlines currently flying in and out of CRK include: Asiana Airlines, Cebgo, Cebu Pacific, China Eastern Airlines, Emirates, Jin Air, Korean Air, Qatar Airways, Philippines AirAsia, Philippine Airlines, JetStar, and Scoot. Latest flights added include flights to Cebu, Caticlan, Davao, Busuanga, Bacolod, Puerto Princesa, El Nido for domestic destinations; and Incheon, Busan, Hongkong, Singapore, Dubai, Doha, Shanghai, Kansai, and Los Angeles for international.

A new terminal is also underway to accommodate more travelers. This is foreseen to be able to accommodate eight million passengers per annum, decongesting traffic in Ninoy Aquino International Airport in Metro Manila. CRK has its roots in the Clark Civil Aviation Complex that re-opened in 1993 after being cleared of volcanic debris from the Mt. Pinatubo eruption in 1991. The first major expansions to the airport were completed in 2008 under former President Gloria Macapagal-Arroyo.

CLARIFY
THE VISION OF A MODERN PHILIPPINES



BUDJI+ROYAL
ARCHITECTURE
DESIGN

A sampling of
BUDJI+ROYAL's projects:
(this page) Lumot
Lakehouse, Philippines, and
Mactan Cebu International
Airport (MCIA) Terminal 1's
Tropical Plaza. (Opposite
page) A longview of
MCIA at night.



BUDJI+ROYAL
ARCHITECTURE
DESIGN

MCIA TERMINAL ONE
TROPICAL PLAZA



Uniquely Modern Filipino

Modern Philippine architecture and design traces its roots to a simple—often overlooked—element of Filipino culture

By Cecile Jusi-Baltasar

Developing a sustainable community using modern Philippine architecture involves pulling together many design elements to make up contemporary structures perfectly fitted to a tropical climate.

Some architects would say, however, that modern Philippine architecture is just a hybrid of the several outside influences that, for centuries, held power over the Filipino culture. The Malays brought their intricately designed gables and poles; the Spanish erected their imposing colonial churches; the Americans rebuilt post-war Manila with their 20th century art deco style. The assimilation of all these themes, as some design professionals say, is what makes up the foundation of the present architectural practices in the Philippines.

CLARK
THE VISION OF A MODERN PHILIPPINE



An aerial view of MCIA, and (below) a private residence in Cebu, Philippines.





Modern Philippine architecture does not refer to a specific look. Instead, it is a refinement of lifestyle and an improvement of what is already there. And consistently, it puts the Filipino first.

Royal Pineda, principal architect and CEO at BUDJI+ROYALArchitecture+Design firm, begs to differ. “The *bahay kubo* (*nipa* hut) is the epitome of Philippine architecture,” he says. “It was not built by an architect. It was built by a Filipino trying to shelter his family and protect them from predators and the elements. It was built because they needed a dwelling unit. It is this honesty in approach that defines Philippine architecture.”

Humble as it is, the *bahay kubo*’s simple approach is what drives Philippine architecture to contemporary times. As most of the world strives to minimize its carbon footprint, the sustainability of the basic *nipa* hut points modern Philippine architecture towards its main direction.

“The *bahay kubo* is the most honest example of sustainable architecture,” Pineda says. “If we can celebrate all Philippine traditions, including the *nipa* hut, then we can liberate ourselves to practice modern Philippine architecture. Guided by [our traditions], we can respond truthfully to the lifestyle of today, the methods and materials [available] today. Modern

Philippine architecture should always address the [needs of the] times.”

Assessing this approach by international standards is not exactly an exercise in futility, but close to it. Pineda, who has done numerous projects in Asia, Europe, and the Middle East, knows the merits of modern Philippine architecture, and they aren’t globally inferior.

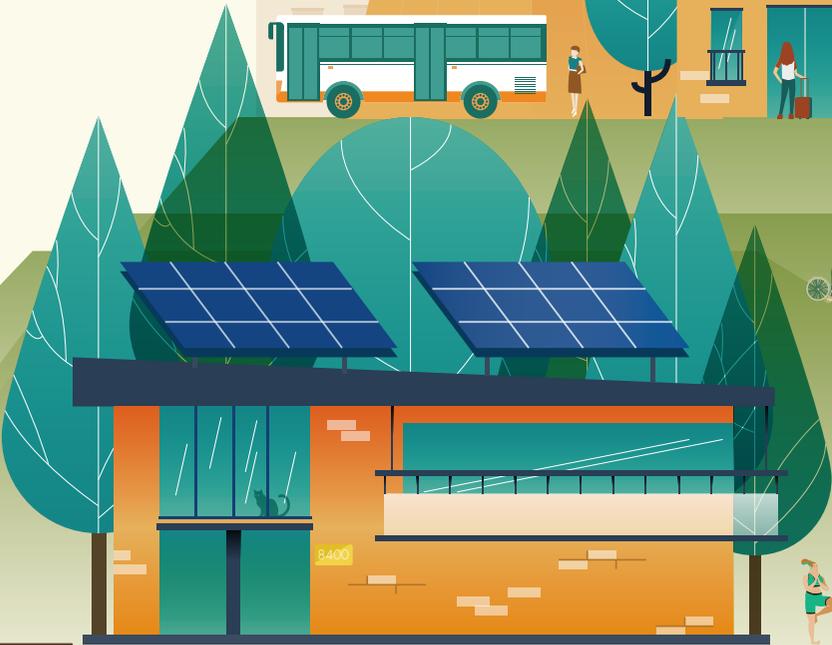
“You start with a global standard,” he says. “Then you look at your country’s logistics and topography. Respond to what and where you are. In the end, you will be surprised that the standards of the world might even be lower than the standards of your country.” Building materials that have been manufactured using first-world technology could offer an edge. But Pineda is adamant that Philippine building materials can serve the same purpose. “If we can just work on our own materials, we can offer them to the world. Materials are never new. What is critical is that we innovate the materials,” he says.

It is this patriotic perspective that uplifts living and working conditions in the Philippines. When Pineda was tasked to renovate the Ninoy Aquino International Airport I, for example, he included improving the facilities to accommodate the Filipino culture of long farewells—“The jeepney-loads of people coming to see off one friend; they also deserve a better waiting area. We need to bring out our hearts to be able to modernize our country,” he says.

By how Pineda sees it, then, modern Philippine architecture does not refer to a specific look. Instead, it is a refinement of lifestyle and an improvement of what is already there. And consistently, it puts the Filipino first. As Pineda says, “If we are going to build cities, we have to embrace us [first] so we can improve us.”

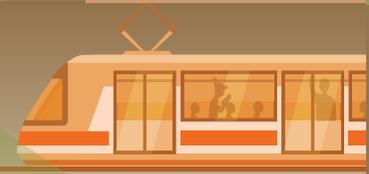
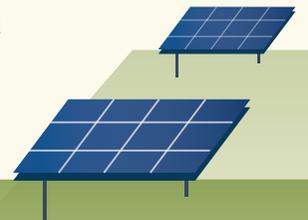
CECILE J. BALTASAR is a freelance writer and editor based in Manila.

CLARK
THE VISION OF A MODERN PHILIPPINES



SHAPING THE FUTURE TODAY

New Clark City is BCDA's answer to the overstressed confines of Metro Manila. Masterfully laid out, highly connected, with mixed-use developments and an integrated transport system, New Clark City will provide unmatched potential for the Philippines, its neighbors, and its investors to be a global economic force.



CLARK

THE VISION OF A MODERN PHILIPPINES

Ready, set, go

Relocation might not always be the solution to decongestion, but in the case of Metro Manila and New Clark City, the move seems inevitable—and the choice, crystal clear

By **Boo Chanco**



This is what metropolis living can look like. A well-managed and well-planned city, where vested interests are put aside for the common good of the people.

It seems it's all systems go to develop Clark as a new National Capital Region.

Already, a master planned 177-hectare development known as the Clark Global Gateway City is fast rising to rival Metro Manila's central business districts with its extra wide avenues and underground utility connections.

The first building to be completed is the now functioning Medical City's Clark hospital, which was built from scratch. The buildings intended to house various business offices in the area are interconnected and reveal a close attention to the interrelationship of buildings, people and the environment. There are wide sidewalks and bicycle paths. A solar energy installation is providing half of Clark's needs.

Construction abounds for the ASEAN Summit in late 2017, as well as signs of the fledgling New Clark City, such as an unsolicited proposal to build a government center from the group that helped build Malaysia's Putrajaya—just one notable initiative, among many, of this pioneering development.

Spearheading it is Bases Conversion Development Authority (BCDA), along with the Clark Development Corporation (CDC), which is looking at Clark as the solution for the severe congestion and daily traffic jams in Metro Manila, which is already home to 25 million souls.

Just before former CDC head Arthur Tugade took over the Department of Transportation (DOTr), he mentioned wanting to decongest Metro Manila.





A step toward this, for instance, he said, would be a proposal to stop giving tax incentives for BPOs and other industries locating within Metro Manila—indeed, all pending applications who insist on building within the metro should be rejected.

Ordinary Metro Manilans can only agree with Tugade. Many view Metro Manila as increasingly dysfunctional or even unlivable. Relocating major urban functions or building new cities outside the existing metropolitan area seems a sound idea.

Urban planner Dr. Art Corpuz, in a recent paper, agrees that Metro Manila's problems are indeed unacceptable, especially based on international benchmarks. However, he is not convinced moving out of Metro Manila by itself is the right response. In other words, he asks: if something is broken, do you discard it (by moving to another location) or do you fix it in its place?

Dr. Corpuz is of the opinion that “there is no basis for saying that Metro Manila or any other city is too big and over-concentrated...” He correctly pointed out that the Philippine government has just failed to deliver primary government responsibilities to the extent similar to other cities.

Dr. Corpuz concludes, “city size and density thresholds are products of history, governance and technology, and none may be considered as empirical absolute limits.” But the reality is that it is doubtful our government (national and local government units) will ever be able to put greed and vested interest aside and do what is right for Metro Manila.

All points of Dr. Corpuz considered, to make Clark bloom would be a sensible choice, if only to show our people we are capable of having a well-planned and well-managed city. Seeing this happen in Clark should hopefully make Filipinos realize that the mayors have



A step towards decongesting Metro Manila, for instance, would be...to stop giving tax incentives for industries locating there.

been sleeping on their jobs and should be kicked out.

I hope the enthusiasm of Clark officials won't fade. They have everything they need to have a model major city—from an international airport to hotels, to resorts and factories and businesses that are the envy of other areas.

What a boost to the morale to see the current

heads of BCDA and CDC actually moving projects forward. No more excuses...let's get going now!

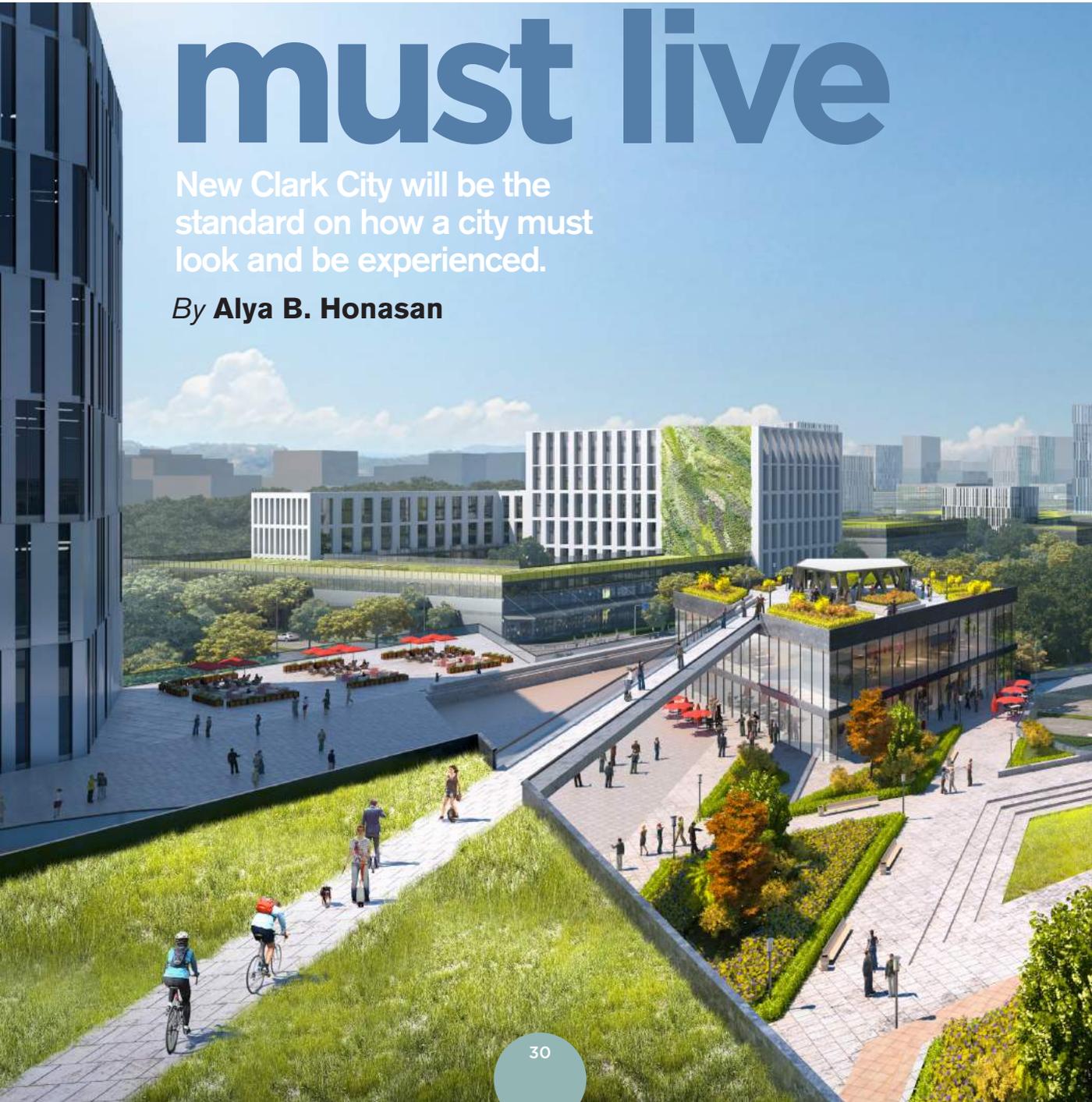
BOO CHANCO is a business journalist. This is an abridged version of his piece, "Clark as new NCR?" which was published on August 9, 2017 for his column, "Demand and Supply" in The Philippine Star. It has been adapted to fit the tone of this publication.

CLARK
THE VISION OF A MODERN PHILIPPINES

How we must live

New Clark City will be the standard on how a city must look and be experienced.

By **Alya B. Honasan**



We are the communities we make, the homes we build, the cities we fashion; where and how we live are showcases of who we are, what we aspire for, and what we value. Here is where our minds and hearts are molded, our most valued relationships formed and nurtured, and where we establish a base for the life we want to live.

Forward-thinking developers all over the world know and have already embraced the wisdom of this path. Urban capitals like Singapore and Japan have mastered the concept of mixed use, with pockets of green providing delight even in central business

districts. In the Philippines, breaking free of the limitations of Manila, the Bases Conversion and Development Authority (BCDA), in partnership with AECOM/Nippon Koei and JOIN, is building an ambitious self-contained community from the ground, New Clark City. Located outside Manila, the city will offer 9,450 hectares of living, working, and leisure space with its own integrated transport system connecting people internally, as well as to the Clark International Airport and Manila.

Until other places in the Philippines—those places where development has been haphazard and



Communities are where our hearts and minds are molded. Forward-thinking countries like Singapore and Japan have mastered this concept of mixed-use with pockets of green. In the Philippines, BCDA and its partners are following the wisdom of this path with New Clark City.

uncontrolled—catch up, New Clark City will be the standard in how a city must look, and be experienced.

The United Nations (UN) has estimated that around 70 percent of the world’s population will live in cities by the year 2050. One can only imagine how such large-scale migration can prove catastrophic to an already grave housing problem, in cities unable to cope with the swell of humanity. The problems follow quickly: traffic, floods, failure of basic services like utilities and garbage collection, and—most alarming in terms of the bigger picture—environmental issues like climate change.

“Fundamentally, the way we shape cities is a manifestation of the kind of humanity we bring to bear,” said American urban designer Peter Calthorpe in a recent TED talk. “And so getting it right is, I think, the order of the day. And to a certain degree, getting it right can help us solve climate change, because in the end, it’s our behavior that seems to be driving the problem. The problem isn’t free-floating, and it isn’t just ExxonMobil and oil companies. It’s us; how we live. *How we live.*”

So what do Calthorpe and other experts require of these cities of the future, if they are to be sustainable, optimal human dwellings? Not surprisingly, first among these non-negotiables is an efficient road and transportation system, because buying more and more cars will not solve the problem of pollution and traffic, but rather, will exacerbate it.

John Kwant, head of Ford Motors’ International City Solutions Program, calls it “re-imagining streetscapes,” which means better managed and designed roads and walkable sidewalks, dedicated bike lanes, rapid bus



“Fundamentally, the way we shape cities is a manifestation of the kind of humanity we bring to bear,” said American urban designer Peter Calthorpe. “And so getting it right is, I think, order of the day.”



Imagine eliminating the bane of Philippine urban living—the stress of congestion, pollution by having better designed streets and walkways.

lanes, and rail systems. “By looking at each city as its own transportation ecosystem and helping to better manage both the supply and demand sides of the equation through connected modes and consumers, we think it’s possible.”

Then, there is the “right” mix. That means a mix of use—homes, workplaces, recreational centers, and retail outlets within the same area for greater efficiency and convenience. It also means a mix of incomes—different kinds of workers, students, even retirees living well in the community. Imagine the possibility of eliminating stressful, harrowing commutes, the ultimate bane of urban Philippine living—a whole new world indeed!

Finally, and most importantly, the cities of the future must be green if people are to survive. They must necessarily be built around and with respect for natural features, incorporating enough trees, and giving residents and users space to breathe in order to remain physically, mentally, and emotionally healthy.

“You take delight not in a city’s seven or 70 wonders, but in the answer it gives to a question of yours,” wrote journalist Italo Calvino. Here is hoping that developers today act with enough foresight for tomorrow, to build habitations that will answer every human being’s need for a meaningful, delightful life.

ALYA B. HONASAN is a Manila-based writer, editor, yoga practitioner, dog mama, and cancer survivor.



Mandated with the task of converting former military bases into self-sustaining and premier centers of economic growth, BCDA employs and partners with only the best, the brightest, and most reputable. Alongside the world's most formidable design and development conglomerates, BCDA is building world-class business and residential centers, special economic zones, and game-changing infrastructure that can be utilized by and benefit the Filipino people for generations to come.



Our Partners







The Golden Age of Strategic Partnership: Philippines and Japan

Commitments from the Japanese government will help realize the dream of Build, Build, Build

By **Patricia Ruth Cailao**

The Japanese government continues to be the Philippines' top source of official development assistance (ODA) loans. According to an announcement made by the National Economic and Development Authority (NEDA) in September 2017.

NEDA's announcement came as no surprise for the Philippines has been immensely benefiting from the Japanese government's assistance since the 1960s. From 1967 to 2008, the Philippines received PhP983 billion (US\$20.56 billion) worth of ODAs from Japan, to construct and improve infrastructure—highways, bridges, airports, seaports, and railways.

Now, President Rodrigo Duterte is seizing the opportunity out of the strong Philippines-Japan partnership to bring tremendous changes in the country.

His statements exactly show the trademarks of his leadership which his government is embodying: deciding boldly, and acting swiftly.



Japan Overseas Infrastructure Investment Corporation for Transport and Urban Development

Earlier this year, President Duterte launched the Build, Build, Build program, his comprehensive plan to sustain the country's economic growth and improve the quality of life of all Filipinos.

The Build, Build, Build program invests in high-impact legacy projects that will usher in the Golden Age of Infrastructure in the country, and which will be the long-term solution to the country's lack of infrastructure, spreading growth and investments to the countryside, while addressing the growing problem of congestion in main urban centers such as Metro Manila.

The program came with the decision of the Duterte government to allocate 5.4 percent of the gross domestic product for infrastructure spending for 2017 alone—more than half the average infrastructure expenditures of the past six administrations.

The PhP8.4 trillion worth of projects under the Build, Build, Build program will not only provide Filipinos with an efficient mass transport system that will fast-track delivery of goods and

services but will enable interconnectivity and better logistics in the whole archipelago.

In his second state visit to Japan, President Duterte met with Japanese Prime Minister Shinzo Abe and discussed “concrete, time-bound, and specific ways to further intensify bilateral cooperation,” the President said during his arrival speech from the official visit. On top of their agenda is Japan's vital support for the high-impact projects under the Build, Build, Build Program.

The President said that he will closely work with Prime Minister Abe “to ensure that projects proceed soonest and it will be Done, Done, Done.” With this in mind, President Duterte added that the Philippines and Japan “are building a golden age for our strategic partnership.”

The Japanese government committed a trillion yen (close to US\$9 billion or PhP452 billion) worth of pledges to fund the projects under the Build, Build, Build program. In addition to this, President Duterte secured at least PhP59 billion (113 billion yen) worth of loans, and PhP309 billion (US\$6 billion) worth of Japanese investments out of the 18 business deals signed in his second visit to Japan.

Part of the trillion yen aid package will fund the Manila Metropolitan Subway Project, and the North to South commuter railway from Clark, Pampanga to Los Baños, Laguna.

These commitments from the Japanese government will realize the dream of the Golden Age of Infrastructure in the country. Japan, after all, builds the most massive, modern, and efficient transport systems and smart cities in the world.

Dozens of rail lines cut across Japan, making these the world's most complex railroad systems but at the same time one of the safest and most systematic.

In terms of smart cities, Yokohama City sets an example in its transformation from a small settlement south of Tokyo, to becoming Japan's second-biggest city with a population of 3.7 million (as of 2011) and gross city product of 12.77 trillion yen (2008).

To cope with rapid urban growth, the Yokohama City government took the initiative to work with the national government, the private sector, and its citizens in the implementation of six projects.

The city government integrated transport development with urban development and combined it with residential and environmental issues.

Meanwhile, the subway system was guided by the

“To build the best, you have to partner with the best,” BCDA President and Chief Executive Officer Vivencio Dizon said. He believes that BCDA should also harvest from the gains of Philippines and Japan’s long-standing partnership in bringing progress to its properties, especially those outside Metro Manila.

“15 minutes by train” principle for residents to reach the city center while the “30 minutes by car” principle was incorporated to the city’s expressway network.

For transportation, while a robust subway and bus system exists, 2,300 electric vehicles and charging stations were introduced throughout the city.

Model for New Clark City

The Japanese model is what the Bases Conversion and Development Authority (BCDA) aims to do in implementing developments in Clark.

Clark, with its strategic location of being a few hours away from Metro Manila and from tourist spots in North Luzon, has a huge potential in generating billions of investments for the country.

“To build the best, you have to partner with the best,” BCDA President and Chief Executive Officer Vivencio Dizon said. He believes that BCDA should also harvest from the gains of Philippines and Japan’s long-standing partnership in bringing progress to its properties, especially those outside Metro Manila.

New Clark City (formerly known as Clark Green City), BCDA’s most ambitious project to date, is designed to be the country’s first smart, green, disaster-resilient city,

where nature, lifestyle, business, education, and industries converge, and will be at par with other modern cities in the world. It is among the centerpiece projects under the Build, Build, Build program.

The masterplan for the New Clark City is in its final stage of completion which is being done by the Japan Overseas Infrastructure Investment Corporation for Transport and Urban Development (JOIN), engineering design firm AECOM, and engineering firm located in Japan, NIPPON KOEI—the government’s partners in implementing urban development projects in Clark.

With BCDA’s dream of establishing sustainable growth in New Clark City, this 9,450-hectare development project will feature mixed-use real estate developments for housing, a business continuity center that would also house national government agencies, an agro-industrial park that will provide a platform for research and development, and the Philippine Sports City.

New Clark City will also maximize public and green space as only a third of the total land area will be developed and two-thirds will be allotted for green spaces.

Even the roads in the New Clark City will be the first of their kind in the Philippines. The roads will have wide pedestrian lanes, exclusive bicycle lanes, lush greenery and an integrated mass transit lane.

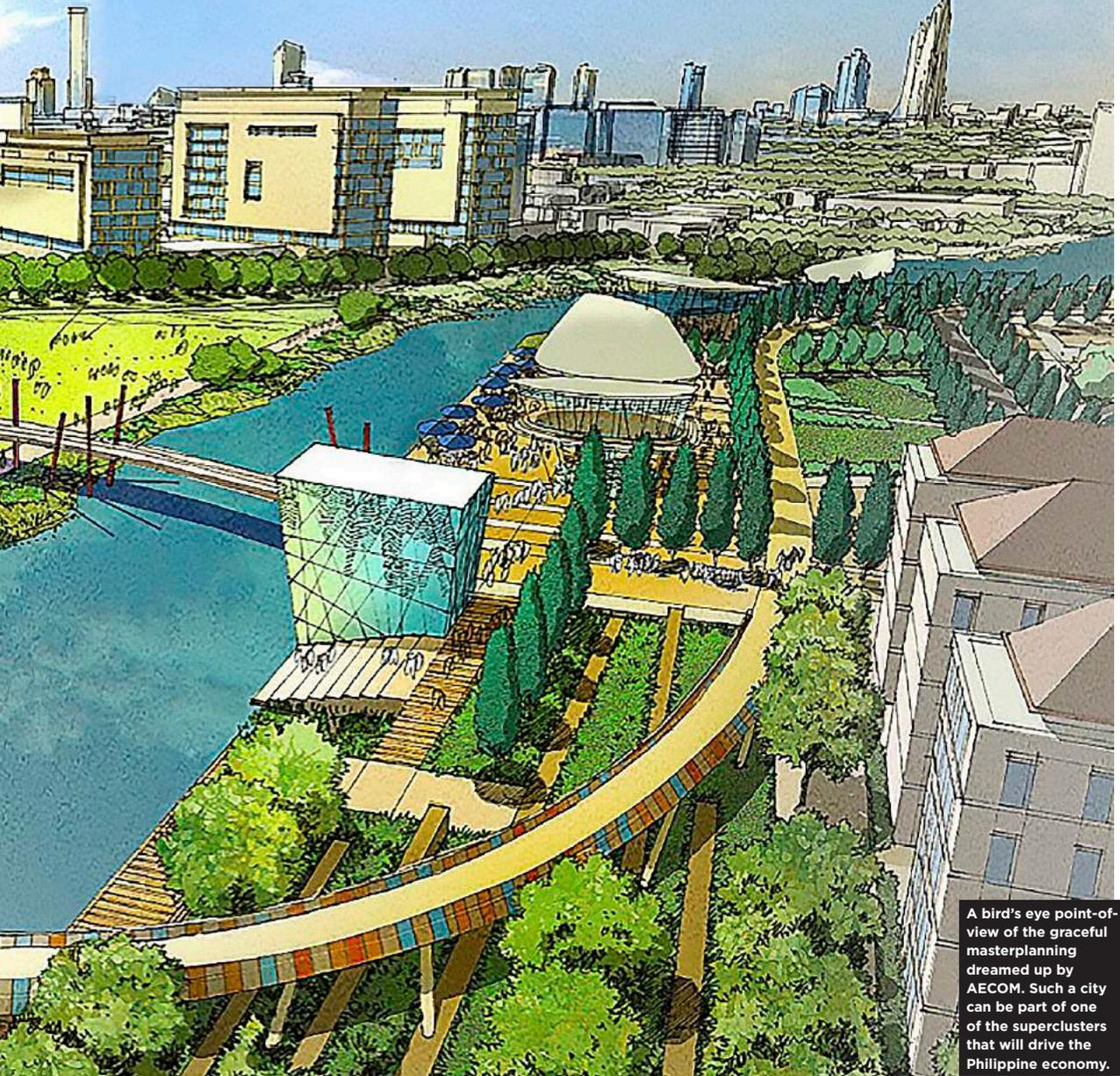
New Clark City complements other development projects in Clark such as the expansion of the Clark International Airport and the construction of the Subic-Clark Cargo Railway all envisioned to provide interconnectivity in the region and benefit millions of Filipinos.

The Duterte government is putting in lots of hard work to establish New Clark City, a benchmark to future master-planning initiatives in the country. The success of New Clark City defines the Philippines’ preparedness in building great cities that live up to sustainability. And this new metropolis could be among the best testaments of what we learned from our collaborations with Japan.

PATRICIA RUTH CAILAO works as a corporate communication officer for the Bases Conversion and Development Authority. She’s interested in studying the Korean culture, and enjoys her classes in minhwa or korean folk painting.



**No city should
be an island**



A bird's eye point-of-view of the graceful masterplanning dreamed up by AECOM. Such a city can be part of one of the superclusters that will drive the Philippine economy.

Connectivity in all its forms—physical, technological, human—is part of the solution masterplanners take to ease urban congestion and make a region grow

As told to the editors by
Sylvester Wong

Everyone would do well to take a break from the urban challenges of Metro Manila. From that center alone flows 80 percent of the whole country's services. According to reports, the Philippines loses PhP3B (\$600M) a day because of Metro Manila traffic. Congestion brings food security issues, wellness issues, energy crises. Add this to how new economies are changing commute patterns and the way people occupy space, and inevitably, the costs and risks of living and doing business in this part of the Philippines increase to almost unbearable levels.

To ease this, urban masterplanners such as AECOM look to "super regions". There are only a few super regions around the world, which have clusters of 30 to 40M people. The original super cluster, from where the term was first coined in the '60s, was the Washington-New York corridor, that produced \$2.5T in GDP for the United States.

Super regions drive global economies. In the Philippines, the isthmus from Central Luzon and Calabarzon in the south (comprising of five provinces—Cavite, Laguna, Batangas, Rizal, and Quezon—and one highly urbanized city, Lucena, in Quezon) to past Subic and Clark in the north, presents a gateway to a whole hinterland of the country. This corridor has produced a significant part of economic activity from agriculture, trade, property, tourism, I.T. products and manufacturing—industrial park type developments—for the past 10 years.

While New Clark City can be seen as part of the solution to alleviate the problems in Metro Manila, one shouldn't forget the developments around it, particularly Clark International Airport, itself a 2300 hectares mixed-use development.

"Location, location, location" was the old adage of real estate. Today it's *connectivity, connectivity, connectivity*. Connectivity not just in terms of tollways and rail, but also data and to resources—places where people can generate assets to function properly.

The development of Utapao Airport in Thailand, another AECOM project and another satellite airport, just like Clark International, illustrates this. Utapao looks at Southeast Asia and the broader competitive advantage. How is connectivity enabling that? Through ports and the airport. Through accessibility of raw materials and talent. Managers, executives, researchers, innovators—these individuals have a lot of choices for employment—they could go to Hongkong, or Singapore.



But why would they choose Thailand? Because of the connectivity.

This is the value chain of adjacencies that drive the economy: Aviation cargo uses have to be next to logistics, that have to be next to food services, that have to be next to Research and Development (R&D) centers, that have to be next to BPOs, that have to be next to law offices and banks, that have to be next to the residential areas, and schools.

At Utapao, that's the kind of mix that we are starting to do. It's not just masterplanning the airport, but what's happening *around* it.

That's the playground we're looking at in the Philippines. It's not Clark versus Metro Manila versus Batangas. It's how each of these play their roles in the team. However, there is currently a disconnectivity from



“Location, location, location” was the old adage of real estate. Now it’s connectivity, connectivity, connectivity. Connectivity not in terms of toll or rail, but also data, and to resources.

Clark to Batangas. A solution to this is North to South rail lines and freight rails going to Subic Bay—this is part of what will make New Clark City work. New Clark City is an island without these rails. The things that happen around it and the things that are connected to it, will make it work. Without connectivity, a city is nothing.

Creating a masterplan is about setting a framework. It’s not a perfect vision of what a place is going to look like in 40 years. More important, it’s a sense of assurance that stakeholders—the planners and developers—are committed to an idea. It may not be perfect now, but it’s a living document. The plan will always change with the people who are attracted to it enough to become its champions, and who will take ownership and help shape its evolution.

SYLVESTER WONG is the vice president of AECOM, Inc.

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Illustration by **THERESE CIMAFRANCA**

Work-Live Play-Learn



Venues where nature, cultures, and businesses harmoniously complement each other make for dynamic and progressive societies

As told to the editors by
Josephine Gotianun Yap

Going by the numbers, there's no denying the Philippines is "the rising Tiger of Asia."

The Philippine economy is now pegged at \$292 billion, and is forecasted to rise to \$1.2 trillion by 2030. By the end of this decade, according to a report by the Asian Development Bank, the Philippines can achieve upper-middle income country status with per capita income of at least \$4,126—a figure similar to those of China, Malaysia, and Thailand.

Well-positioned in this foreseen growth is Filinvest Development Corporation, a diversified conglomerate with interests in property, banking, hospitality, power generation, and the sugar industry. A leading real estate developer with over 50 years of experience and PhP527.5B (\$10.3B) in assets, Filinvest boasts of nine major city and township developments spread over 3,000 hectares across the Philippines. The group also has a retail and office portfolio of a million square meters. With our diverse portfolio and our expertise in townships—masterplanned, integrated, and mixed-use communities—partnering with Bases Development and Conversion Authority for turning the vision of New Clark City into reality seemed almost predestined.

The live-work-play-learn model is perfect for New Clark City. Changing times call for convenience and flexibility. Mixed-use developments put the essence of full integration to heart: to create seamless circulation that empowers every urban dweller. The ultimate benefit of this model is one I describe as a *holistic lifestyle*, one that's inclusive and well-rounded, actively supports you and your community's needs, yet inspires everyone to be at peak.

This sounds easier said than executed, however. The challenge of urban planning today is to blend three important aspects:

The first is to bring back the human scale and intimate community place-making into our cities.

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Timberland Heights is a 677-hectare premier mountain suburban township that's home to the Timberland Eco-trail -- a mountain bike trail that boasts of thrilling slopes and technical ascents.



Envisioned to be competitive with the world's most modern cities, Filinvest City is a fully integrated and self-contained community, divided into districts to provide a balanced mix of developments.

simple things like dedicated bike lanes, but also district cooling systems and the use of recycled water to water plants. All stakeholders of the city—locators, workforce, visitors or surrounding communities—regardless of socio-economic standing, benefit from this.

Circulation and mobility are important to us. In our 244-hectare Filinvest City in Muntinlupa, we have a grade separated pedestrian riverwalk amidst a linear parkway traversing the entire city. In our 677-hectare Timberland Heights, a mountain suburban townscape near Quezon City, we have mountain bike trails incorporated into wide open spaces. The 288-hectare Phase 1 of New Clark City, meanwhile, incorporates the Manila-Clark rail.

I admire how forward-looking cities embrace diversity in all its forms—creating people-centric venues where nature, cultures, businesses and industries mingle, flourish and harmoniously complement each other, creating a dynamic and progressive society uniquely its own. This is the core of the new live-work-play-learn model.

The onus of ensuring the sustainability of this model falls not just on the developer, but the whole community. A community's dynamics is everybody's business. For sustainability to work, each one plays a crucial role in its care. *Malasakit* (solicitude/protective concern), and sense of ownership are values that we can all share to carry the live-work-play-learn vision through to fruition, and later, to contribute in nation-building. How can this happen? By educating and exposing other communities to the possibilities of communities that are masterfully planned, integrated, and inclusive. When we show that this model is worth emulating, then other communities will follow. People will always choose to replicate what is successful.

JOSEPHINE GOTIANUN-YAP is president and CEO of *Filinvest Development Corporation*.

The onus of ensuring the sustainability of this model falls not just on the developer, but the whole community.

The second is to incorporate the evolving requirements of cities in pursuing their economic goals in the most efficient and cost-effective manner. And third is to ensure the sustainability of its environment through the use of technology.

As Filinvest designs its master planned cities, we have these three goals in mind. We consider not only



What matters most

A dream home or neighborhood is made up of people who care for each other's well-being

By
Regina Abuyuan

We all have our own ideas of what our dream dwellings are—a high rise condo, a cushy bungalow in a gated community, a sprawling ranch on the outskirts of the city.

Regardless of where we dream we could live, or actually are able to live, we're likely to have basic requirements: that the place be safe, clean, and relatively accessible for work (or school) and emergencies. Less factors to worry about means less stress, and less worrying translates to better quality time for whom we want to while away our hours with, or for pleasures we want to pursue. Stress, after all, has been coined "the silent killer." Good physical and mental health greatly depend on how safe our homes are from hazards, and how much privacy, security, and safety we are provided with, be it by those who lead the neighborhood, or our collective efforts. Where we live and whom among we live indeed affects every aspect of our daily lives.

Like a child who thrives better in a school that



makes learning enjoyable, so will we in an environment that makes us feel good about ourselves; that will make us feel most productive and happy. Efficient transportation, effective law enforcement, and good schools also add to this preferable milieu.

This is the principle behind live-work-play communities: that people are happier living in places that contain most of our needs, and by providing those needs, bonus living conditions are created as well. This convenience does away with the trouble and time taken up by long commutes; consequently, live-work-play communities also encourage more walking, physical activity, and interaction with neighbors, leading to healthier and more social lifestyles.

Although this has become the winning pitch of many a real estate developer, the “live-work-play” community concept isn’t new. It’s existed since prehistoric times, when groups of families used to live in caves, and later, in tightly-knit villages, where work for the men

wasn’t far away, and women could watch the kids as they played and grew alongside each other. In modern times, this is translated into neighborhoods where residents have good, if not civilized, ties with each other. Communities whose members have a high level of trust with one another also enjoy increased levels of health.

Winston Churchill once said that “we shape our buildings, and afterwards, our buildings shape us.” If we all want homes—nay, neighborhoods—that give us peace of mind and fulfillment, then perhaps we should start with ourselves. How our communities are shaped and cities are formed depends much on our individual behaviors. We may not always have our dream houses—that chalet in the mountains or that high rise penthouse—but we can all have the closest thing yet: peaceful and nurturing homes and communities, where the citizens are invested in each other’s health, happiness, and contentment, by keeping the reasons for those conditions alive and present for ourselves, as well.

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Asia's next food hub



Semmaris has partnered with BCDA to bring the indomitable Rungis Market experience to the Philippines—and to Asia.

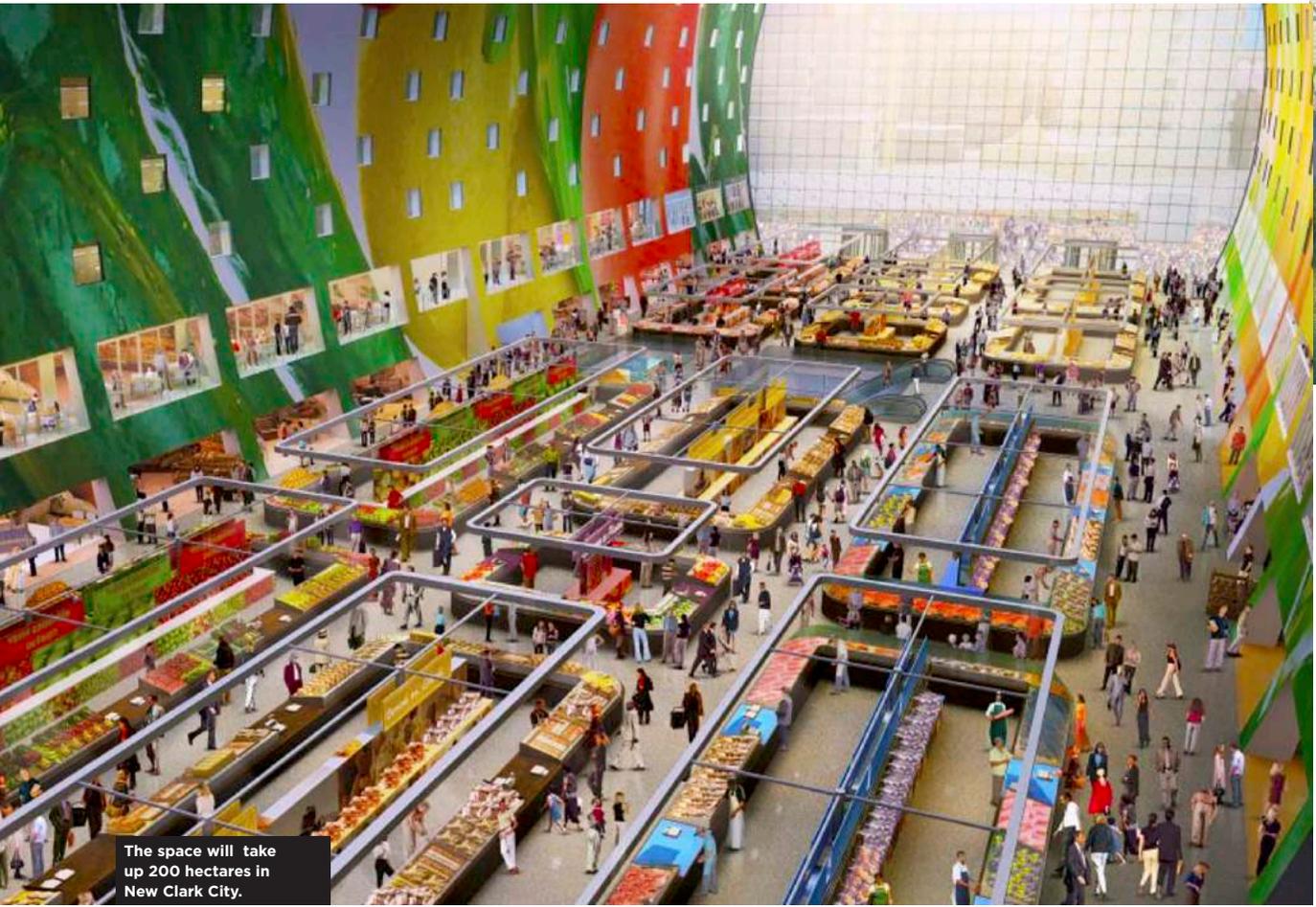


A strategically-located “stock exchange” of fresh agricultural produce and processed products in New Clark City makes for a win-win among people and companies in the business of feeding the world, and those who love to eat

As told to the editors by
Florian de Saint Vincent

Located in the outskirts of Paris—one of the most beautiful and excellently planned urban centers in the world—is the Rungis Market, one of France’s most famous landmarks. Its history goes back to antiquity, to a humble Parisian market called the “Palud” on Île de la Cité in the 5th century, and follows a fascinating arc of evolution and reinvention that has always anchored itself on France’s incomparable gastronomic heritage.

Now, Rungis is sprawled over 234 hectares and is home to 1,200 companies, serving thousands of customers a year. Though a high proportion of products sold at the market are French-made, the offerings have also become largely international. Behind the gargantuan operation of Rungis International Market today is Semmaris, a semi-public company tasked with developing the property



The space will take up 200 hectares in New Clark City.

and maintaining its reputation as the first and leading wholesale market in the world.

Most recently, we've replicated the Rungis design and infrastructure model in the cities of Moscow and Dubai. Fifty other market designs are located all over the globe.

Now, we are entering the Philippines via the Rungis Market of Asia, so to speak—a 200-hectare space in New Clark City. On this space will rise a Food Processing Terminal and International Food Market; a “stock exchange” of fresh agricultural produce and processed products that will consolidate food supply chains and postharvest systems of Northern and Central Luzon, Metro Manila, and nearby countries.

Through a partnership with Bases Conversion and Development Authority and Metro Pacific Investment Corp. (MIPC), Semmaris will provide all its know-how

in diagnosis, conception, realization, and management of food wholesale centers, including training of the operators and research of partners and investors.

The potential in this long-term collaboration is enormous, given the Philippines strategic location in Asia.

Consumption habits continue to change very quickly. Different governments continue to face different challenges—one of the biggest being food security. Market logistics—making sure countries who can supply food can get it to areas where it's needed—is part of addressing this problem. We are convinced of the need to build new regional wholesale markets and multimodal platforms to offer increasingly competitive logistical services in different regions of the world.

We see this happening in the Philippines, where New Clark City will serve a pivotal role in strengthening



The Terminal will serve a big role in strengthening ties among Asian countries, leading to a positive impact on the future of food processing, agriculture, and agribusiness.

We are convinced of the need to build new regional wholesale markets and multimodal platforms to offer increasingly competitive logistical services in different regions of the world.

exchanges, notably with China, Thailand, and Japan. This will have a positive impact on the future of food processing, the agricultural sector, development of agribusinesses, and employment. Such a project could also attract large-scale distribution companies with the objective of improving and ensuring the quality and regularity of supplies.

As Rungis Market is a springboard for French trade and a channel to promote French agricultural and food products—with farmers directly selling their produce at the “Carreau des Producteurs” (Producer’s Sector), alongside wholesalers who regularly organize expos for regional products—the New Clark City Food Terminal can also be a grand venue to promote, and export, Philippine goods.

Success of this, of course, hinges on the highest-level political support, which BCDA provides, and the Rungis-Semmaris’ study of the best concept and the best economic model for the region. The first few years of the partnership will be devoted to this. After follows construction and operation, and then: the splendid business of the Philippines’ own *marché international*.

FLORIAN DE SAINT VINCENT is Director of International Projects Director at *Marché International de Rungis - SEMMARIS*

Pampanga: The next food destination

Pampanga, where Clark is located, is the culinary capital of the Philippines. Mention Kapampangan cuisine to any Filipino, and they’ll immediately associate it with local, accessible ingredients transformed into heavenly gastronomic treats.

From the innovative (such as sisig, once described by Anthony Bourdain as “a divine mosaic of pig cheeks”), to the curious combination of the humble and heady (think bringhe, a mix of sticky and regular rice cooked in coconut milk and turmeric, topped with chicken, eggs, and peppers), to the decadent (like taba ng talangka, or crab fat).

The world may go through a roller coaster of food trends, but Pampanga cuisine will remain a favorite. It represents all that is good in food: fresh, simply flavored, and able to evoke delighted sighs and satisfied burps.

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ILLUSTRATION BY **JOSH ARGOSINO**

A city that breathes

New Clark City's masterplan calls for an unprecedented 60 percent of land as open space

By **Julia Nebrija**

The quality of a great city is measured not by what is built, but what is left open. For Jan Gehl, the godfather of public space, urban design has a clear hierarchy: “First life, then spaces, then buildings—the other way around never works.”

Although the concept of cities themselves are rooted in the public realm, they have been vigorously ignored in much of modern day planning. Today, cities are fighting to bring back public, open space as challenges such as climate change, density, and mobility threaten quality of life. In fact, United Nations-Habitat deemed public space so crucial it received mention as one of the Sustainable Development Goals, and is even part of a follow up provision titled the “New Urban Agenda”.

New Clark City aims to set a new bar for masterplanned cities. Central to this goal is the more than 60 percent of land that is designed as open space. In a recent study, U.N.-Habitat found that the most successful cities allocate 50 percent to open space; 30 percent of which consists of streets and 20 percent to other public spaces like parks, playgrounds, and markets. The percentage for New Clark City is rare at the international level—and is unprecedented for a Philippine city.



A 2010 study of Metro Manila found there are five square meters of green space per person, well below the recommended World Health Organization (WHO) minimum of nine square meters per person. The amount of space is not the only indicator of a livable city. Green space should be integrated to daily life, which is why the WHO also advocates that all urban citizens live within a 15-minute walk to green space. In New Clark City, there is not only plenty of public space, but it is the fabric that weaves the city together.

The percentage of open space in New Clark City is high. While it may be counterintuitive to leave valuable land unbuilt, the justification behind this ratio is three-fold: to create a livable environment for people, ensure resilience, and increase the value of investment.

Working with what's there

The term masterplan often leads people to believe a city rises from a blank slate. One of the first moves in designing a new city is paying attention to what already exists. For New Clark City, the masterplan integrates an ambitious portfolio of investments around a carefully carved open space network, protecting existing features and integrating new ones.

Zooming out, at the boundaries of the site, the hills will be preserved in their natural state. The extensive tree cover is crucial to absorb rainfall and prevent runoff and in helping to cool and clean the air around the city's core. Zooming in, the city is defined by two rivers, the larger of which forms the spine of the urban grid. The programming around the river will be a prime public space for leisure, recreation, and culture. Preserving these rivers ensures the natural retention of floodwaters. The creation of lagoons in target areas provides additional retention and brings a refreshing visual to the landscape. The rivers lead to a large park, which is one of many still being designed. As the development evolves, public parks will be integrated based on the balance of residential, commercial, and civic uses.

Streets are the most common open space in a city. In New Clark City, they go well beyond the use as a roadway. The streets follow the grid model famous for making cities such as New York easy to navigate. Within this grid, people will enjoy commuting along wide shaded sidewalks and bike lanes. The streets are a living part of the city as a key to green infrastructure, with the integration of bioswales and permeable pavement to mitigate flooding by managing stormwater. These



designs follow an international trend to maximize streets as primary urban places.

Although open space is often thought of as land, sight lines and air flow also influence urban design. New Clark City considered a careful balance of densities and positioning of buildings to capture the natural wind patterns in the area, allowing for valuable urban ventilation. From the green to the blue, this will be a city that breathes.

Open space plays a major role in how a city thrives today and in the future. The city needs it to survive environmental trials, attract and retain a talented workforce, and protect the investments that go into building a new metropolis. In other words, open space is at the heart of sustainability.

JULIA NEBRIJA is a Manila-based urban planner with a Master's Degree in Urban Design from the City College of New York. She is a government consultant on inclusive mobility and more livable cities, which she also works for through her non-profits, Viva Manila, and Inclusive Mobility Network.



The creation of lagoons in target areas provides additional retention and brings a refreshing visual to the landscape, as shown in this rendering by BCDA.

One of the first moves in designing a new city is paying attention to what already exists.



Streets are more than thoroughfares and are a living part of the city as a key to green infrastructure.

Resilient Growth

By **Regina Abuyan**

Developers of New Clark City aren't just taking a long- and 360-degree view of resiliency—they're making it into a reality.

In the first ever Urban Resiliency Summit organized by 100 Resilient Cities, a non-profit put up by the Rockefeller Foundation, it was pretty much made clear that the state of transportation, poverty, public health—different stresses that a city experiences every day, or cyclically—put a community in as much risk as a super storm, or a heatwave. For the 500 urban planners and leaders that made it to the summit in July 2017 in New York City, this wasn't breaking news. Boston's Chief Resilience Officer, Dr. Atyia Martin, said, "Resilience is not about dealing with floods or

earthquakes, but encompasses everything from financial stability to social equity."

"Resiliency is the ability to bounce back better, but also the ability to not have to bounce back as much," explains Sylvester Wong, vice president of AECOM, which has partnered with Bases Conversion and Development Authority (BCDA) to develop the Philippines' first and largest fully resilient city. "It's got three stages—planning for the unexpected, handling the unexpected at the time of the unexpected, and third, it's what you do afterwards."

“Resiliency” is part of the three-pronged approach AECOM and BCDA are utilizing in envisioning New Clark City. The other two are “Investability” and “Connectivity”.

“Resiliency” is part of the three-pronged approach AECOM and BCDA are utilizing in envisioning New Clark City (NCC), a master-planned community with an unmatched ratio of green space, a spanking new government center, smart buildings, and integrated transport systems, located in 9,450 hectares in the vicinity of Clark Freeport Zone and Clark International Airport. The other two tines of the masterplan trident are “Investability” and “Connectivity”, which in themselves make for, glibly put, a zombie-apocalypse-proof city.

In the Philippines, however, this holistic understanding of resiliency has yet to take anchor. Resiliency in most quarters is still very much about withstanding disaster brought about by the wide-scale and visible effects of climate change—having rafts ready during rainy season, or making sure children have a school to go back to when floodwaters recede. It takes a whole new way of thinking



to take a longview and translate it into how it can work for a community in all minutae of their lives—and not just after the onslaught of a storm.

Not that NCC disregarded this basic prerequisite of a disaster-proof city. “All the fault lines in the Philippines avoid that area,” comments Wong. “It’s an advantage. Another is it not being next to the coast, where you have sea-rise issues.”

Preparing for slow onset impacts of climate change and staying resilient should always be a priority. In a policy paper I authored in 2015, presented to the Philippine



This rendering illustrates what AECOM and BCDA envision for New Clark City: a master-planned community with an unmatched ratio of green space, smart buildings, and integrated transport systems. With “Investability” and “Connectivity” considered, NCC can be, glibly put, a zombie-apocalypse-proof city.

Congress to consider (read: beg for more) research on slow onset climate change impacts, important areas of focus for resiliency were discussed. Among them: the facilities to properly gather and keep data; infrastructure that works and lasts; food security; preservation of community and culture.

Uncannily, New Clark City is equipped to provide these—and then some.

“Resilience, especially with BCDA and NCC, is the ability to have something which is thoroughly thought out, not just on the physical side, but the governance

side,” says Wong. “It’s not just a physical design thing. It can be as simple a thing as (having the right) insurance. Financial literacy about a property. New Clark City has a lot of potential, and that’s reassurance for investors and residents.”

REGINA ABUYUAN is a Manila-based writer and editor. She is editor of the award-winning “*Agam: Filipino Narratives on Uncertainty and Climate Change*” and “*Bayuhay: The Story of the Millennium Challenge Account-Philippines*”.



A formula for an ideal urban set-up

**Surbana Jurong takes its
wealth of experience in shaping
Singapore's unsurpassed
mixed-income housing
system to New Clark City**

As told to the editors by
Eng Kiat Tan



A stroll through Singapore’s tower block neighborhoods—where 82 percent of her population resides, and where different ethnicities and incomes live harmoniously side by side—reveals clean, safe, and green spaces. Residences are located on the upper floors, while communal recreational areas and shops can be found on the lower floors.

It’s a set-up that Harvard economist Edward Glaeser once described as a “close to ideal” form of urban development, due to its ingenious use of towers.

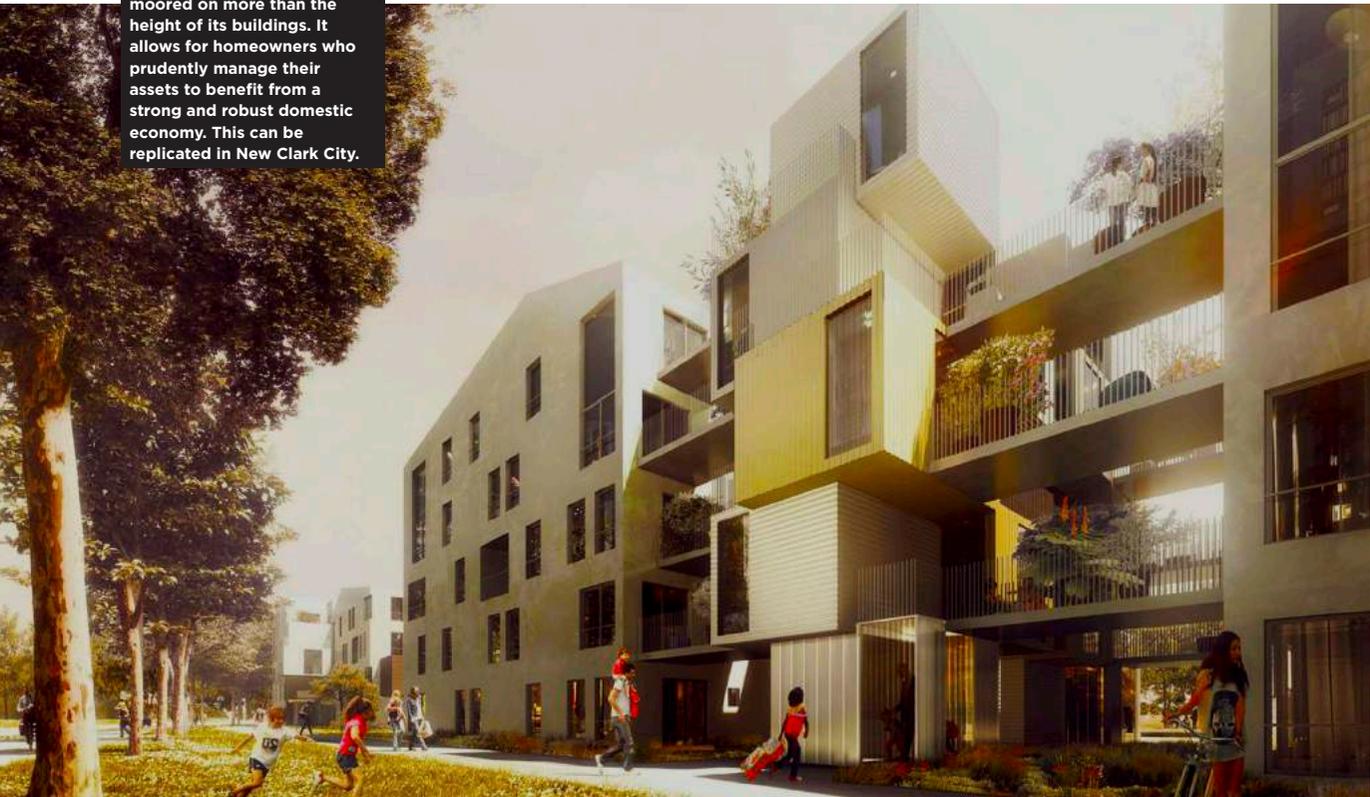
But the success of Singapore is moored on more than the height of its buildings. From a planning perspective, one of the driving principles of *Surbana Jurong* and this

country’s policy is the mixing of population to foster social harmony and prevent the creation of ghettos. This is a reaction to the colonial divide-and-rule policies which segregated races and cultures, and created social tensions that got in the way of good governance and economic progress. It is also intended as an escape from the poverty trap and allows for homeowners who prudently manage their assets to benefit from a strong and robust domestic economy.

The mixing of socio-demographics happens at multiple levels:

- At the township level, where private condominiums are mixed within public housing (typically two plots of private residences for six plots of public housing);

The success of Singapore's mixed-income housing is moored on more than the height of its buildings. It allows for homeowners who prudently manage their assets to benefit from a strong and robust domestic economy. This can be replicated in New Clark City.



- At the precinct level, where different apartment types (segregated by income level) are mixed and placed side by side;

- At the block level, where within one block can also be found different types of housing and income levels, often on the same floor; and

- The mixing of cultural heritage and races based on the national proportion. In the Philippine context, this can be translated to mean mixing of residents whose ancestry are from different parts of the country.

The key functions of mixed-income housing in the Singapore context is manifold. Simplistically, it can be summarized in the following points:

- Easy administration of social services.
- Allowing the state a certain degree of control over housing and land prices (which are market-driven) as

the state gets to set the launch price of these subsidized housing (currently, the state incurs losses to the tune of \$8B a year to prevent inflation of property prices).

The existence of a strong secondary market for state-subsidized housing. This allows for:

- Sense of ownership and self-policing, thus preserving of the quality of environment to preserve property value;
- Buy-in from citizenry on government initiatives as they are direct beneficiaries of state housing policies;
- Enrichment of direct-from-state buyers as they buy at a subsidized price but resell at market value, allowing for upgrades from their social level;
- Integration of expatriate, non-resident, or non-citizen population who will buy or lease in the secondary market.

The quality of housing, amenities (childcare, good schools, sundry, medical services, etc.) and environment

of these neighborhoods often supersede those built by the private sector, which gives little incentive for residents to invest or spend more for private property.

This is because the secondary market policy ensures that residents willingly contribute to conservancy funds for periodic upgrading (structural or mechanical and electrical) and other municipal services, ensuring that the estates are kept in often better condition than private residences. This allows even 50-year-old properties to have equivalent (and often more) value as brand new apartments. Low-income earners are caught in the social safety net where they receive newly-built heavily subsidized apartments, whereas a salary cap on buyers prevent excessive gentrification.

It indeed sounds ideal, but mixed-income housing is

a complex issue we will be eagerly exploring possible solutions to in more detail during the planning of New Clark City. Following the different policies, practices, culture, and legislation of the Philippines, Surbana Jurong's approach to this ambitious project will be adapted accordingly.

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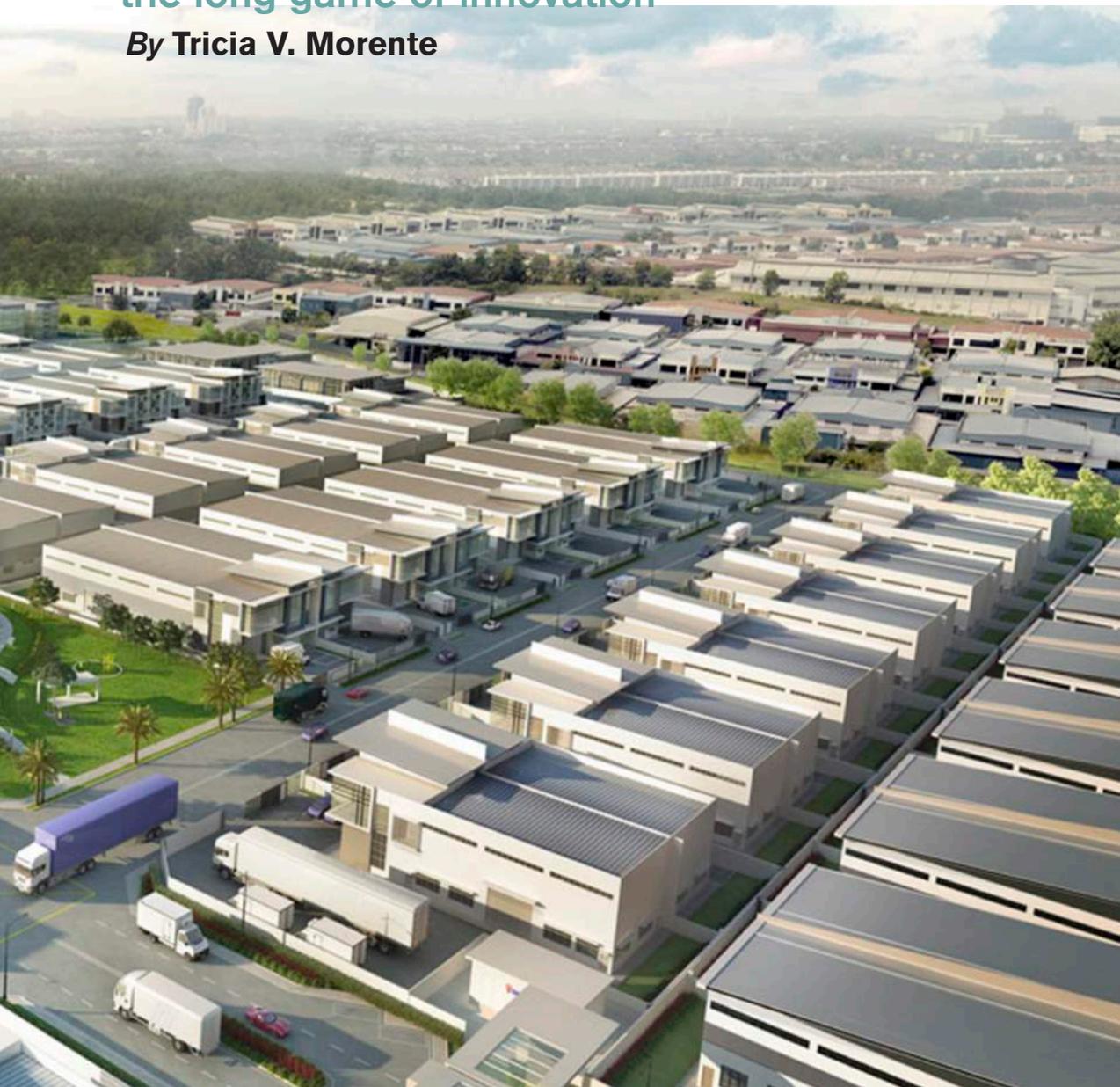
CLARK
THE VISION OF A MODERN PHILIPPINES

City of the future



An environment that fosters creativity, community, and collaboration is key to winning the long game of innovation

By Tricia V. Morente



The technology start-up boom that began in Silicon Valley and spread to Asian countries like China, India, and Singapore, has given rise to a new urban model: the innovation district.

Bucking the prediction that information and communications technology would usher in an era where remote work is the norm, the emergence of innovation districts—distinct locales close to, or within, urban centers where enterprises and institutions coexist with startups and incubators—underscores the idea that creating an environment that fosters creativity, community, and collaboration is key to winning the long game of innovation.

The country's thriving I.T. and business process outsourcing industry, as well as the presence of both technology giants and digital startups alike, are proof of the Philippines' robust participation in innovation-led digital economy. However, a lot of the components that comprise an innovation ecosystem are often dispersed across different areas in Metro Manila. Unlike Silicon Valley in Palo Alto, California where tech start-ups, incubators, accelerators, and venture capital firms share the same zip code, there is no one dedicated district in the Philippines where all these relevant players converge.

To be competitive, a country needs to specialize. Recognizing this, the Philippine government, through the Bases Conversion and Development Authority (BCDA), and in partnership with AECOM/Nippon Koei, is establishing an innovation-centric metropolis close to the Clark Freeport Zone and the Clark International Airport. With its first phase of development projecting completion by 2022, the 9,450-hectare New Clark City is the Philippines' answer to the call of innovation that's resonating globally.

Master-planned as a thriving business, residential, and leisure metropolis close to the Clark Freeport Zone and the Clark International Airport, New Clark City brings all the components inherent in a self-perpetuating economic engine into one disaster-resilient and environment-friendly development. This includes the New Clark City Innovation Corridor, an R&D-driven industrial park focused on innovative industries that is projected to generate 600,000 jobs for Filipinos.

The Innovation Corridor will offer much of what creative talent needs to prosper—educational institutions, parks, plazas, a mix of housing types, a state-of-the-art sports institute, and an eclectic blend of commercial establishments on the streets. Accessible to Metro Manila through the Subic-Clark-Tarlac Expressway, as well as

The innovation corridor will offer much of what creative talent needs to prosper—educational institutions, parks, plazas, a mix of housing types, a state-of-the-art sports institute, and an eclectic blend of commercial establishments.

through a proposed high-capacity Integrated Transport System, the New Clark City will be home to one million residents upon its full development.

With the country's key cities struggling with the consequences of poorly-planned over-development, there's a need for "younger" districts to be progressive when it comes to the industries they nurture, and the way they're designed and planned. A need to rethink the way their citizens live, work, and play—and foster new ideas and behavior that can shape communities of the future.

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