

# Achieving Sustainable Urban Development Project Philippines



**SUMMARY REPORT**  
2016



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**On the cover:**

Geospatial data from [openstreetmap.org](http://openstreetmap.org)  
Graphic design by David Jonathan C. Garcia

# CONTEXT

The Philippines is an archipelagic country covering 300,000 square kilometers of land with a population of 92,337,852. It is also one of the most rapidly urbanizing countries in Asia, with an annual growth rate of 2.26% for the period 2005-2010, placing the percentage of the total urban population at 49% as of 2010. It is projected that by 2050, 56% of Filipinos would already be living in urban areas.

Urban population growth is driven mostly by rural-urban migration as well as internal growth. Cities provide migration's "pull factors" such as higher wages, better educational opportunities and accessible basic infrastructure and services, while rural areas provide the "push factors" - such as decreasing agricultural productivity and continuing conflict, especially in southern Philippines. Relatedly, the country's economic outputs are attributed mostly to urban areas, with incomes estimated to be 2.3 times higher than rural areas.



The mentioned trends in urbanization is directly related to the rapid change in land cover of Metropolitan Manila and adjacent areas over the recent decades. The images below show the fast increase of built-up areas (gray areas) from 1989 to 2012 and the decrease of natural and agricultural land cover at the peripheries.

Source: United States Geological Survey

## Philippines National Urban Data

Particulars	Data
Government type	Republic
Total Land area Philippines	343,448 sqkm.
Geographic landscape	archipelago
Population 2015	100.98 M
Annual growth rate, 2010-2015	1.73%
Urbanization level, State of Asian Cities, ESCAP & UN-Habitat	44.5% (2015)
Number of cities	145
Number of Municipalities	1,489
GDP growth rate 2015	5.0-6.5%
Total Government Budget for 2016	P3.002 Trillion

PERCENTAGE OF FILIPINOS LIVING IN CITIES AND URBAN AREAS



44%

2015



56%

BY 2050

75%

PERCENTAGE OF THE  
COUNTRY'S ECONOMIC  
OUTPUT ATTRIBUTED TO  
URBAN AREAS, 2.3 TIMES THAN  
THAT OF RURAL AREAS



1.5

MILLION

NUMBER OF INFORMAL  
SETTLER FAMILIES



51%

PERCENTAGE OF THE  
1.5 MILLION LIVING IN  
DANGER AREAS

# SITUATIONER

While urbanization promises positive achievements such as economic opportunities and better access to infrastructure services, rapid urbanization also brings with it consequences that if remain unchecked, pose more development challenges than benefits in the longer term. These include the need for more equitable economic opportunities for the increasing population, secure and decent housing, improved basic services delivery, and overall, a living environment that is ecologically sound - with populations that are resilient and adaptive to threats posed by existing hazards and other impacts brought about by extreme weather variabilities.

For most cities whose rate of urbanization is faster than that by which their institutions could cope, the result is a proliferation of unplanned settlements and informal market hubs, social exclusion and deprivations in equitable access to services arising from these informal attributes, and increased vulnerabilities and lack of social safety nets to allow populations to cope with sudden crises and disasters. These cities also continuously sprawl and encroach into the urban fringes, including areas declared non-buildable or ecologically fragile. Concomitantly, these cities face inefficient land use, high energy consumption, and low density without reaping the benefits of agglomerated economies.

## Challenges in Urban Planning and Management

### *Capacity gaps of cities for better and inclusive planning and design.*

Many LGUs still lack the adequate technical and institutional capacity to fully discharge their mandated responsibilities of planning and managing cities. Comprehensive Land Use Plans (CLUPs) and City Development Plans

(CDPs) remain wanting in terms of spatial information and analysis. The process of aligning with regional and national plans is also made difficult because of the absence of baseline data needed to inform such planning.

At the level of provincial governments, Provincial Physical Framework Plans are produced to serve as guides for component cities and municipalities in the preparation of local plans. What this process lacks, however, is the broader approach that goes beyond planning based on the general economic functions of cities and municipalities as delineated by specific geographic boundaries. There is therefore a need for more effective inter-local development planning processes, one that allows for comprehensive cluster planning so that public services and development in emerging urban areas are more coordinated and integrated, fully optimizing economies of scale and agglomeration.

### *Outdated and inharmonious urban development policies and legal framework.*

The National Urban Development and Housing Act of 1992 is a national policy framework that outlines the country's thrust and agenda on sustainable urbanization. It aims to i) uplift the conditions of the underprivileged and homeless citizens in urban areas and in resettlement areas by making available to them decent housing at affordable cost, basic services, and employment opportunities; and ii) provide for the rational use and development of urban land. While the law puts the local government unit (LGU) at the center of its implementation emphasizing a market-oriented and participatory approach to housing, the law remains to be fully and effectively implemented. Over the years, it has been evident how LGUs ended up needing more resources as well as strengthened capacities to undertake shelter and urban management. Likewise, the issue of relocating

informal settlers is both a political challenge as much as it is a socio-economic one. The UDHA has dragged on for two decades because some, if not most, LGUs have refused the physical transfer of their political bulwarks to areas outside their jurisdiction, or simply have prioritized other programs besides shelter provision. There is also the question of capacities not only of sending LGUs to undertake the relocation, but also that of the receiving LGUs (as off-site resettlement has mostly been the case) to ensure that the resettled families do not end up much poorer as a result of economic and social displacement. The UDHA therefore needs to be reviewed and updated.

The process of land administration is a national government function performed by several agencies. Because of lack of human resources deployed on the ground and the difficulties inherent in an archipelagic country, some functions have been devolved to LGUs by means of "co-management" agreements. However, LGUs remain to have limited involvement in land management and national agencies continue to take primary action. An effect of this is the absence of initiatives in pursuing land development approaches that can enhance living and working conditions for residents. An example would be the pooling of individually owned properties for the provision of socialized housing or revitalization of blighted areas. All in all, the lack of LGU capacities has turned urban planning approaches to become short-sighted, reactive, and largely private sector-directed, making development segregated and poorly connected.

**Non-optimal financial capacities.** Most cities have limited capacity to generate local revenue – with most of these sourced out only from real property taxes, business taxes, local economic enterprises, and other fees and charges. Meanwhile, there is a lot of dependence on Internal Revenue Allotment transfers from the national government; and even with this, fiscal autonomy remains weak due to lack of capacities to manage these financial resources effectively and sustainably.

*One in every two Philippines cities that have enjoyed cityhood for more than 10 years have not realized their full local revenue potential*

*Source: Bureau Of Local Government Finance*

Instead of investments in revenue-generating enterprise infrastructures, local governments rely on capital infusion by private businesses, usually for the development of tourist destinations, or for the establishment of huge shopping mall chains and international fast food outlets – the latter being seen by most LGUs as the "mark of economic progress" in their respective territories. LGU efforts are therefore largely individualized, with hardly any cluster planning strategically undertaken together with adjacent territories to capitalize on the economic potential of a larger area.

**Vulnerability to climate change, resulting to lack of resilience.** The Disaster Risk Reduction and Management (DRRM) Law enacted in 2012 provides for the expansion of the calamity fund of LGUs to include disaster preparedness investments, apart from response measures. Further, it provides for a People's Survival Fund (PSF), a special fund appropriated in the annual national budget amounting to Php1 billion to finance local climate change action plans and make communities more resilient to climate-induced disasters.

Most LGUs though lack the technical capacity and financial resources to develop such local action plans, which, if practiced in an inclusive manner, should further cover participatory processes down to barangay levels where invaluable local information on risks and adaptive practices could be generated. Even in cases where disaster-related data are available (such as disaster hazard maps), most LGUs lack the capacity to analyze and leverage such to inform land use policies and resettlement policies. Most LGUs also lack the capital resources to undertake resettlement especially in areas already identified as no-build zones.

## **The Response: UN-Habitat's Achieving Sustainable Urban Development Project**

Achieving Sustainable Urban Development (ASUD) aims to effectively support participating countries in achieving sustainable urbanization,

one that helps build a new relationship between urban dwellers and urban space, where cities become more connected, compact, and integrated.

It proposes an innovative, proactive, and integrated approach to addressing urban development challenges, and at the same time strengthens the capacities of countries and cities in a range of technical areas to ensure that urban development plans are made for growth, resilience, and economic development.

ASUD is underpinned by five key principles in achieving sustainable and inclusive urban development.

**The five principles are:**

***Adequate space for streets and an efficient street network.*** The street network should occupy at least 30% of the land and at least 18 kilometers of street length per square kilometer. This will encourage efficient mobility and use of public transport, reducing vehicular dependency and improving accessibility of services and goods. It will also contribute to the reduction of greenhouse gas emissions and will promote the use of renewable energy sources and technologies.

***High density.*** At least 15,000 people per square kilometer; or 150 people per hectare. This will alleviate urban sprawl, maximize land efficiency, and trigger economies of scale through local employment and increased consumption and demands for services.

***Mixed land use.*** At least 40% of floor space should be allocated for economic use in any neighborhood. Aside from realizing the economic potential of the land according to its highest and best use, mixed urban uses will also promote a holistic management of the ecosystem.

***Social mix.*** The availability of houses in different price ranges and tenures in any given neighborhood to accommodate different incomes; 20% to 50% of the residential floor area should be for low-cost housing; and each tenure type should not be more than the 50% of the total. This will promote social integration, diversity of social groups, a combination of rental and ownership housing, different rental scales and options and cosmopolitan

values regardless of income level.

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

ASUD also uses a three-pronged approach, all three pillars functioning integrally to guide the process of urban expansion. These pillars are: i) urban planning and design; ii) legislation and governance; and iii) urban finance and economy.

The context for the application and integration of the three pillars will be demonstrated by Planned City Extensions (PCEs). PCEs represent an alternative to unplanned urban expansion that is characterized by sprawling, segregated, and poorly connected developments.

**Below are specific features of a PCE as it incorporates the three-pronged strategy:**

***Urban Planning and Design.*** City extension planning will employ strong collaborative work between and among city government officials and technical staff. It will promote new and innovative approaches to achieving sustainable and inclusive development in the city by incorporating the five key ASUD principles in the urban plan and design.

The results achieved will thus feature a PCE that has:

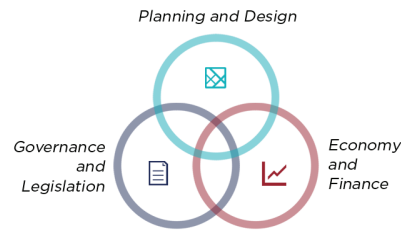
- A spatial structure that supports urban growth and development and attracts investments
- Large areas of land made available for development, resulting in reduced land prices and speculation
- Sufficient public space demarcated to support high densities, mobility and infrastructure networks
- Urban densities increase incrementally in a sustainable way thus accommodating population growth more efficiently

***Legislation and Governance.*** Good urban planning requires the rule of law and an enabling legal environment. In order to develop sound legal and governance measures for the implementation of the PCE, a thorough

# Project Summary Approach & Principles

As the Philippines experiences consistently high economic growth, cities and urbanizing areas are now experiencing spontaneous unplanned urbanization resulting in sprawling, exclusive, segregated, and vulnerable communities and spaces. But an achievable alternative is possible: compact, inclusive, connected and resilient cities. ASUD helps local government units in addressing rapid urban growth and the challenges of urbanization through planned city extensions (PCEs).

## THE THREE-PRONGED APPROACH



# Planned City Extensions Snapshots

The three-pronged approach and the principles on urban space were translated into plans and designs. Legal and financial tools were recommended to facilitate implementation. Insights in doing the pilot work informed the review and enhancement of national urban policies under the guidance of the project steering committee composed of national government agencies, local government units and development partners.



### LEGEND

- River
- Road network
- Agricultural
- Public space
- Residential
- Commercial
- Mixed use
- Institutional

#### UNSUSTAINABLE URBAN DEVELOPMENT



#### SUSTAINABLE URBAN DEVELOPMENT



#### SPRAWLING

CREATES LARGE AND LOW DENSITY BLOCKS THAT MAKE TRIPS LONGER.



#### COMPACT

BUILDS SMALLER, WALKABLE, AND DENSIFIED BLOCKS.



#### EXCLUSIVE

SEPARATES PLACES, PEOPLES, AND ACTIVITIES FROM EACH OTHER.



#### INCLUSIVE

ENCOURAGES SOCIAL MIX THROUGH DIVERSE PEOPLES AND USES WITHIN THE DISTRICT, BLOCK, AND BUILDING.



#### SEGREGATED

DISJOINTED ROAD NETWORK WITH NO CLEAR HIERARCHY.



#### CONNECTED

INTERCONNECTS ROADS AND STREETS WITH A CLEAR HIERARCHY.



#### VULNERABLE

MARGINALIZES, CONSTRICTS, & FRAGMENTS WATER, FARMLAND.



#### RESILIENT

BUILDS WITH NATURE; MAKES ROOM FOR WATER THROUGH PUBLIC SPACES; AND CONSERVES FARMLAND.



ALL GEOSPATIAL DATA IN THIS BROCHURE IS FROM [www.phlglis.org](http://www.phlglis.org) and OpenStreetMap

INFOGRAPHICS AND MAPS DRAWN BY David Jonathan C. Garcia

<p><b>ILOILO</b> PLANNED CITY EXTENSION (PCE) FINAL REPORT 2014</p> <p>DOWNTOWN</p>	<p><b>ILOILO PCE</b> 1152.87 hectares</p>
<p><b>SILAY</b> PLANNED CITY EXTENSION (PCE) FINAL REPORT 2014</p> <p>DOWNTOWN</p>	<p><b>SILAY PCE</b> 844.48 hectares</p>
<p><b>CAGAYAN DE ORO</b> PLANNED CITY EXTENSION (PCE) FINAL REPORT 2014</p> <p>DOWNTOWN</p>	<p><b>CAGAYAN DE ORO PCE</b> 888.83 hectares</p>
<p><b>ZAMBOANGA</b> PLANNED CITY EXTENSION (PCE) FINAL REPORT 2014</p> <p>DOWNTOWN</p>	<p><b>ZAMBOANGA PCE</b> 879.52 hectares</p>



mapping and analysis of existing national and local laws and policies influencing city extension planning and development will first need to be undertaken. Understanding the existing legal and policy frameworks and the dynamics of mandated and political institutions will guide a PCE in identifying legal gaps or incongruences, and consequently help in designing a legal and governance framework that will be the basis for a successful and sustainable implementation of the city extension.

**Urban Finance and Economy.** Developing a realistic and implementable financial plan is crucial to the successful implementation of planned city extensions. The design of effective economic development and municipal finance systems and policies will therefore need to be included in the plan. It will also include strategies for improving city capacities in developing partnerships and leveraging private involvement for promoting sustainable urban economic development and municipal finance policies and strategies.

## Site selection

In the Philippines, four pilot cities of varying development contexts were chosen as ASUD partners: Cagayan de Oro in Northern Mindanao; Iloilo in the island of Panay, Western Visayas; Silay in Negros island, Western Visayas; and Zamboanga in the Zamboanga Peninsula, Western Mindanao.

These cities were selected together with key national government partners based on the following agreed criteria:

- Cities identified in priority national government programs, to ensure sustained national support and investments in the medium-term
- Critical role in regional planning and development
- Political leadership and commitment to the project
- Seal of Good Housekeeping awarded by the Department of the Interior and Local Government, to ensure local capacity and governance

# METHODOLOGY AND PROCESSES

Translating the ASUD principles into operational concepts and processes means, at the minimum, that these are made useful and relevant at the local, 'project unit' level. In the Philippine context, this is applied as a process of localizing – allowing for the Planned City Extension Project to be led, owned, and developed by the City Governments participating in the program.

This localization process takes place along several dimensions of program implementation and loci of action: i) Organizational, ii) Management and Monitoring; iii) Technical – with all three processes taking place at the project unit level (i.e. the local government unit) and proponent level (i.e., the national project management team and/or project steering committee); and iv) Social – primarily taking place at the local level.

## Organizational Process

This describes the activities essential for the Planned City Extension Project's pre-implementation and inception stage, to include development of management structure, finalization of partnership agreements, as well as the performance of coordination functions necessary to ensure smooth handover at the project's exit phase.

***Establishment of a Country-level Advisory Mechanism.*** The ASUD Program was launched on 16 October 2012 together with national government partners, partner-cities, and other development partners from the urban sector and donors. The program covers two city-level urban development

*At a macro-level, the localization process also takes place as it primarily looks into the alignment of the ASUD Program with the development priorities of the national government. Such alignment and harmonization allows for the government to leverage on the ASUD Program to efficiently and effectively achieve its national development outcomes.*

Below are national laws and development and sectoral plans that the ASUD Program can support:

- Philippine National Urban Development and Housing Framework (2009-2016)
- Philippine Development Plan (PDP 2011-2016), and supporting sectoral policies and plans: National Transport Policy Framework, National Transport Plan, Philippine Energy Plan, the River Basin Development Program, Tourism Development Areas, Smarter Cities Program
- The Local Government Code
- Philippine Climate Change Act (2009)
- National Disaster Risk Reduction and Management Act (2010)
- Program on Developing the National Informal Settlements Upgrading Strategy
- Habitat III Country Report

initiatives and three national-level policy advocacy projects. The Planned City Extension is a component of the city-level initiative.

A Project Steering Committee chaired by the Housing and Urban Development Coordinating Council, with members from the Department of the Interior and Local Government, the Housing and Land Use Regulatory Board, League of Cities of the Philippines, the Spanish Agency for International Development Cooperation, the City Governments of Cagayan de Oro, Iloilo, Silay, and Zamboanga, and UN-Habitat Philippines, was subsequently formed to ensure the program's consistency with the government's development agenda, provide strategic and technical guidance in policy review and advocacy, and promote knowledge-sharing among program stakeholders and partners. The PSC meets bi-annually.

**Formalization of Partnerships and Signing of Executive Issuances.** By mid-2013, partnership agreements between the cities and UN-Habitat were formalized through a Memorandum of Understanding with each city, outlining the Terms of Reference, objectives, roles and responsibilities, and scope of the Planned City Extension Project.

Subsequently, the local chief executives of the pilot cities signed their respective Executive Orders, a policy issuance that provides the legal basis for the city to undertake the PCE project. These EOs likewise included a mandate for a Project Technical Working Group, composed primarily of various department heads in the City Government, Barangay Chairpersons, as well as CSO representatives. TWGs were responsible for managing and implementing the PCE Project on the ground, developing the city extension site's urban design, financial strategy and governance structure. All city-level activities needed to effectively implement the demonstration project were also undertaken by the TWG, with the local chief executive taking the project lead.

**Bilateral Consultations.** Dedicated organizational and technical meetings were held between the Project Team and the city TWGs in 2014. This ensured that the specific planning, implementation, and decision-making concerns of each partner-city were addressed and progress monitoring was done on a more qualitative manner.

## **Project Management, Monitoring and Evaluation**

Closely linked with the organizational process is Project Management (including M&E), an overarching function necessary for both the strategic oversight and day-to-day administration of the project.

**Creation of the ASUD Project Team.** The ASUD-Philippines Project Team was composed of ROAP, HSO, the HPM, Project Coordinator, and national consultants. The team was responsible for the day-to-day management and administration of the project with strong coordination, guidance, and oversight from the ROAP Regional Director. Focal points and experts from ROAP and HQ in the areas of urban planning and design, urban legislation, and urban finance, also provided dedicated and progressive technical assistance to the Project Team and the TWGs, from 2014 to 2015.

Consultants recruited for the project include urban planners, GIS experts, urban economy and LED specialist, and an expert in governance and legal matters.

**Functionality of the TWG.** City coordinators were hired following the establishment of city TWGs. The city coordinators performed key management support on behalf of the project lead, facilitating the efficient functioning of the TWG so that key project activities and outputs are delivered on time.

From 2014 onwards, handholding and mentoring sessions for the TWGs were conducted, providing members the needed techno-support from the Project Team, as well as enhanced management capacities to facilitate consensus-building within the group.

**Knowledge Product Development, Monitoring and Reporting.** Knowledge management materials such as project brief, city profiles and project progress reporting, city campaign materials, flyers, and video slides were developed to enhance the advocacy of, and knowledge generation and exchange for, ASUD.

Progress reporting to the HQ was likewise conducted, following prescribed reporting scope and formats.

**Bilateral Meetings.** The same mode of bilateral consultations was conducted on a quarterly basis between the Project Team and/or the PSC Secretariat and the members of the PSC (HUDCC, HLURB and AECID). These meetings were held to facilitate progress reporting by the Project Team, and provision of strategic advisory support by the PSC members.

## Technical Process

Crucial to the localization of the ASUD program is the application of processes and methodologies compatible with the partner-cities' existing mechanisms and legal framework and supportive of their baseline capacities to implement the project. This means that the successful implementation of activities under this workstream will be leveraged by planning processes that are eventually led and owned by the city. In the same way, by taking the lead in the implementation of these processes, partner-cities are expected to build on their technical capacities, leveraging primarily on the project's learning-by-doing approach.

**Inception Activities: Orientation Workshops, Scoping Missions.** A national orientation workshop was conducted in early 2013, mainly to jumpstart the project at the level of the technical focal points from the HQ and the partner-cities. Following this, separate scoping missions were conducted in the three cities to further localize the activities conducted at the national orientation workshop. City-wide analysis and scenario-building by key players from the pilot cities were conducted, mainly as a means for participatory evaluative process, and to inform succeeding scoping activities such as site identification and selection.

**Site Identification and Profiling.** The identification and selection of pilot sites by the three partner-cities more or less followed a process of: 1) shortlisting of potential sites by the project TWG; 2) consultative forum/s with city investment councils comprised of private sector and civil society organizations to present the project and the shortlisted sites; and 3) Follow-up workshop to present the project's detailed objectives, discuss other project implications (e.g., right of way acquisition), and make a collective decision on the selection of the city extension site.



Enhancing the planning process through technical mentoring from UN-Habitat HQ focal points

**Building on CCVAA Results.** Results of existing hazard assessments, climate projections, and climate change vulnerability and adaptation assessments were included in the mapping and city extension planning to ensure that measures for resiliency and disaster preparedness and management will be incorporated in the city extension plan and design. By December 2013, validation workshops have been conducted, leading to the formulation of CCVAA Reports covering the three pilot cities.

**Iteration: Cycles of Planning Research, Conceptual Planning, and Field Validation.** In the planning research, sectoral data - environmental, social, economic, infrastructural, and institutional - were collected and analyzed in preparation for the various workshops. Multi-thematic maps were also refined and digitized, following fieldwork and community validation. Afterwards, in the technical charrettes the data were transformed into designs and other analyses using ASUD principles. Further validation at the community level with local leaders helped refine the conceptual plans.

For instance, in Silay City LED scoping and rapid economic assessments were conducted, providing the city a more solid evidence base for



A field validation scene, measuring the interior roads

developing its financial and investment strategies for the city extension project. In Iloilo, transects and GPS mapping of business establishments were accomplished with barangay officers. In Cagayan De Oro, documentation and treks in the hilly areas of the PCE were done to improve the watershed profile.

**Mentoring: Handholding and On-the-Spot Coaching.** Experts, consultants, and focal points from UN-Habitat HQ, ARCADIS, and the country office provided constant guidance, enabling a more efficient process for activities such as research, conceptual planning, and validation. Mentoring was done at least on a quarterly basis.

TWG members also received on-the-spot coaching and support during workshops, especially in the design and refinement of the conceptual plans. For example, advice on ideal road designs were given by transport specialists while guidelines on densities and placemaking were provided by

the urban planners.

Towards June 2015, workshops on financial assessment, legal assessment and urban design were already completed.

The combination of iteration and mentoring resulted in more detailed plans, which included designs of blocks, roads, and streets. Moreover, the constant advisories helped ensure the sustainability of the project by drilling and actively engaging the City's TWG members in the technical process.

#### TECHNICAL PROCESS INPUT-OUTPUT CHAIN

	Input	Output
2013	orientation workshops, inception mission  hazard assessments, CCVAA, climate projections	site selection and profiling, including CCVAA Report
2014	iteration workshops and HQ mentoring, financial and legal workshops and assessments	Conceptual Plans, Financial Assessment and Legal Assessment Reports
2015	technical charrettes, field and community validation	detailed urban design and plan; digitization of maps

## Social Processes

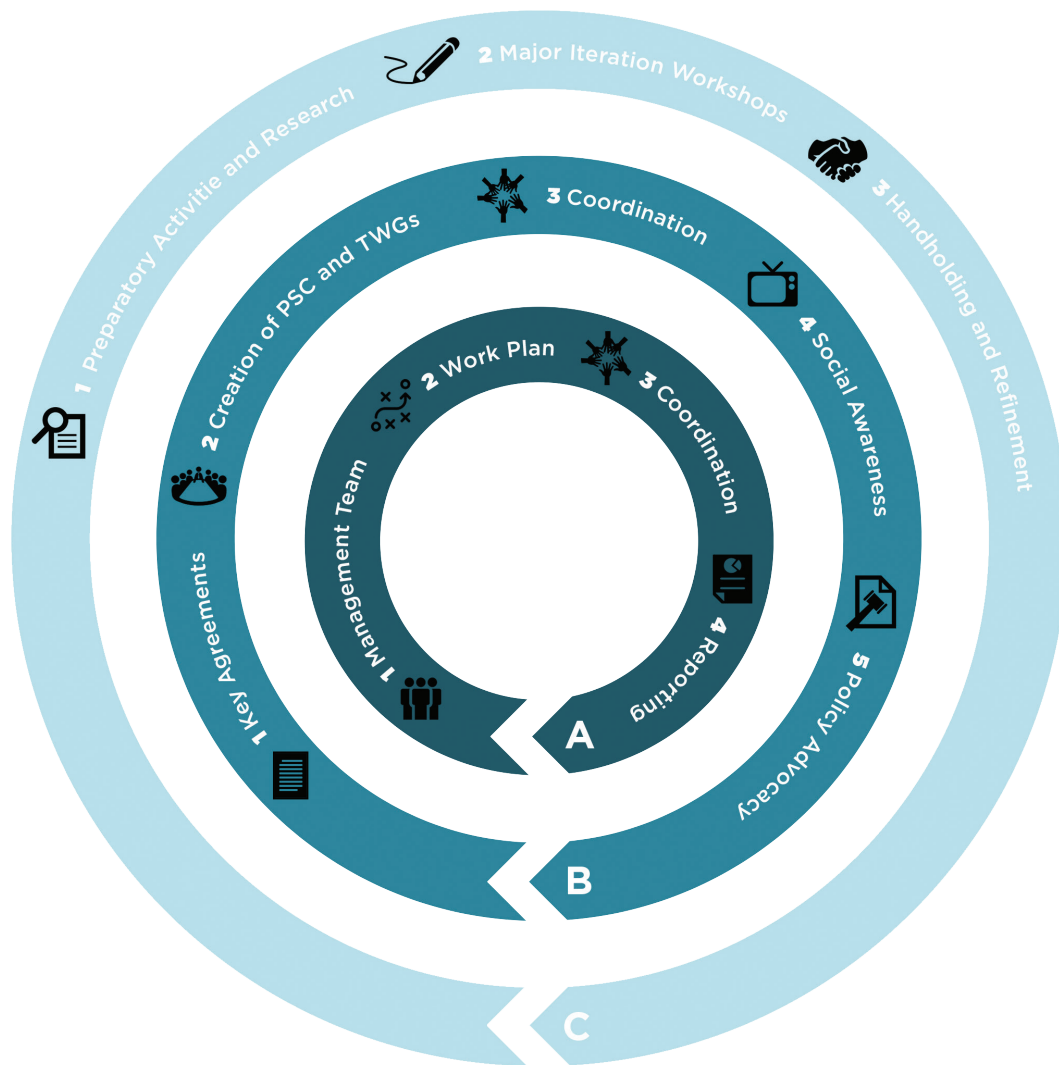
Unlike the first three localization processes, the social aspect of the PCE's implementation takes place mostly at the local level – i.e., in the pilot cities. Activities under this workstream pertain mostly to consensus-building and awareness-raising activities by the City Government, with project stakeholders as participants. Practices vary from city to city. Silay City, for instance, has already initiated a Landowners' Forum to identify private properties that may likely be affected by the project. Cagayan de Oro, on

the other hand, has opened its TWG membership to professional architects from the city. Public information has also been provided through sustained media releases initiated by the city government. Iloilo City, on the other hand, engaged local and Barangay leaders in participatory mapping activities for the PCE area.

The infographic on the next page summarizes the Localization Model of the ASUD Program-Planned City Extension Project in the Philippines:



Feedback session with local stakeholders and government officials



## PROCESSES

- A **Project Management**
- B **Social and Organizational**
- C **Technical**

### PROJECT MANAGEMENT

- 1 Creation of Project Management Team
- 2 Validation of work plan
- 3 Coordination with ROAP and HQ
- 4 Reporting, including monitoring activities

### SOCIAL AND ORGANIZATIONAL

- 1 Issuance and Signing of Key Agreements
- 2 Creation of Project Steering Committee PSC and Technical Working Groups (TWGs)
- 3 Coordination and other meetings
- 4 Raising of social awareness
- 5 Policy advisory at the local and national levels

### TECHNICAL

- 1 Preparatory activities, including research, mapping, and fieldwork
- 2 Major iteration workshops for planning, design, finance, and legal matters
- 3 Handholding and refinement of plans

# SOUND PRACTICES, LESSONS LEARNT, AND WAY FORWARD

UN-Habitat successfully concluded the ASUD – Planned City Extension Project in the Philippines in 2016, with the completion of the PCE projects piloted in the cities of Iloilo, Silay, Cagayan de Oro, and Zamboanga. The project – from country inception to PCE completion by the pilot cities - ran a course of three years, with the exception of Zamboanga City (the additional city), which ran for only two years. Partnerships and networks were built and expanded in the process, within and across national government agencies, private sector partners, experts, and local government units and communities.

As with any pilot initiative, the four participating cities implemented the PCE project without any previous experience or knowledge that could well underpin how they could proceed to implement the project successfully. However even with this limitation, the pilot cities have learned to exercise innovation, leverage on their local knowledge, complement the political will of their city mayor, and mobilize the local stakeholders in drawing strength from a planning process that is both bottom-up in approach and is participatory.

This section presents the sound practices and success drivers for the PCE planning process, as well as the lessons learnt that may serve as guide for

future local proponents. Members of the Project Steering Committee and other partners and experts then took part in a “feedback process” which then allowed the ASUD Project Team to arrive at the findings discussed below.

## **Enablers and success drivers**

***Political will of the local chief executive.*** The commitment and political will of the city chief executive appears to be the most important success driver in the efficient and effective design of the PCE. This was identified strongly and uniformly by the participating LGUs in the project. As chief executive, the City Mayor serves as the leading “PCE Champion” who will banner the vision of a PCE in his/her city, and, at the same time, will take the executive and managerial lead in steering the project team in the design and implementation of the PCE. A certain quality also highlighted as an advantage is a City Mayor’s “advance knowledge” about cities and growth centers, making him/her a natural and trailblazing champion for sustainable urban development and “metropolization.”

***Techno-support provided to the pilot cities.*** Members of the project teams from the different participating LGUs also highlighted the availability of



techno-support provided by the project's experts and the national project team. This was particularly identified as a success driver that was externally driven – i.e., from outside the local project team structure. Examples of techno-support as defined in this project's context are technical assistance, knowledge-sharing and handholding by international and national experts directed towards the local project teams. This also included the types of materials that were downloaded from the national down to the local teams.

## Sound practices and innovations

**Mobilization of local technical working groups.** Local technical working groups (or local project teams) were mobilized in each of the four pilot cities, each group comprised of qualified members performing differentiated roles (i.e., members have respective specializations). The formation of the TWGs was an organizational step undertaken primarily to facilitate transfer of technology and ownership of the project. However, tapping on the local experts from the city government also meant that local knowledge was much more readily accessible and therefore worked for better efficiency in terms of data generation and validation. This also allowed for a more detailed and iterative planning process of combining urban planning and design, urban legislation and governance, and urban economy and finance - the 3-pronged approach of PCE.

**Capacity building.** The systematic infusion of new capacities for the local project team provided the much-needed technical guidance to, and "handholding" of, the local government units. Periodic visits by the UN-Habitat Philippines and experts from the UN-Habitat Headquarters proved particularly invaluable as far as learning from global experiences – both from developed and developing countries – as reference cases, are

concerned. City-to-city knowledge exchange also proved to be effective in building knowledge about other cities' experiences and learning from them. These face-to-face interaction allowed for targeted "handholding" and on-the-spot coaching sessions between and among the national/international experts and the local project teams.

The mentoring and learning-by-doing approaches, including the fielding of locally based consultants, contributed not just to the learning process itself, but to the efficiency of day-to-day TWG activities as well.

*In the case of ASUD Philippines, "enablers" of the PCE can be described either as **internally driven** (such as the political will exercised by the local chief executive), or externally driven (as in the provision of techno-support to the pilot cities). "**Innovative inputs**" and "**sound practices**," on one hand, can be described as either **inward-directed** or **outward-directed**. This means that the innovations practiced by the local project team were either directed towards improving their own efficiency (e.g., mobilization of local technical working group), or outwards, to other social processes or inputs that can result to overall effectiveness (e.g., public-private collaboration).*

Overall, the LGUs highlighted the importance of periodic mentoring and visits by the national project team and experts in generating enthusiasm and providing encouragement among the local project teams.

**Consensus-building and collaboration with stakeholders.** As mentioned in the earlier section, part of ASUD Philippines' localization process included "social approaches" – in particular, the engagement of partners from outside the local project team. Non-government organizations and local private businesses participated in consultation processes, especially at the organizational and inception stages. Initiatives such as this enabled the project to harness community inputs and resolve any social acceptance

issues that may compromise project quality-at-entry.

Meanwhile, collaboration with stakeholders need not be conducted only for purposes of quality-at-entry. Consultants and the national project team have also pointed out at post-project, the need to expand stakeholder participation beyond awareness-raising and assessment activities, into other activities that would deepen their engagement in more substantive ways. Participation in strategy-making activities would be an example.

## Key Learnings on Project Process and Design

**On the 3-Pronged Approach.** The three-pronged approach of urban planning and design, urban legislation and governance, and urban economy and finance worked effectively in the PCE planning process. Local project teams and national consultants agree that its application provided the technical depth needed to complete the design of a planned city extension, in a way that is comprehensive and builds on the multi-dimensional nature of sustainable cities. This was a strategy or approach that was overlooked in the current practice of urban expansion planning in many local government units.

The three-pronged approach, as a project methodology, therefore also requires for the work to be carried out by the project teams in a way that is coordinated and cohesive. Because the three pillars are inextricably interrelated, the work of planners, local policymakers, other local technical staff, even experts, need to be accomplished beyond their respective silos and in a manner that is well coordinated to mirror the efficiency by which a planned city extension operates.

At the national level, the three-pronged approach also guided the composition of the Project Steering Committee to include national government agencies covering the three prongs: HUDCC and HLURB for Planning and Design, NEDA for Urban Economy, and DILG and LCP for Legislation and Governance. The current PSC, meanwhile, recommends the possible expansion of the current membership to include the Department of Public Works and Highways and the Department of Transportation and Communication; the Department of Finance and the Land Bank of the Philippines; and an appropriate committee or representation from Congress, as members of the Planning and Design, Economy, and Legislation pillars, respectively.

**On the 5 ASUD Principles.** The growing urban and local problems (congestion, traffic, urban poverty, lack of land for built-up areas, sprawling development, encroachment of non-buildable and protected areas, among others) are exactly the conditions that warrant the application of the five ASUD principles. However, while the principles are based on minimum

standards, the full and/or immediate compliance with these standards may meet policy, institutional/structural, or even cultural impediments along the way.

A few examples cited by local and national experts include:

- Policy: Minimum requirements for land for streets and public open spaces
- Institutional/Structural: Connectivity as well as public open spaces vs. private property rights, including imposition of security and order, or even street maintenance
- Cultural: Social mix as rights-based and for the common good vs. private property rights; perception of density as correlated with incomes

## Recommendations and Proposed Steps as Way Forward

**Advocacy.** While the Planned City Extension Project certainly presents broad benefits and long-term impacts to cities, there need to be continuing advocacy work especially with governments and key decision-makers to ensure that the PCE process will be adopted and supported through in policy, human resource availability and budget provision throughout the course of its implementation.

Strategic Communication for Development (or C4D) also needs to be planned for and rolled out especially for the wider constituent base of the PCE project. This includes private businesses, landowners, as well as vulnerable groups such informal settlers, etc. This strategy will both facilitate the achievement of the PCE goals and at the same time promote a bottom-up approach and community based action planning that uniquely reflects the issues and concerns of the full range of urban citizens including those living around its fringes (e.g., small scale farmers, indigenous peoples, etc.) The C4D strategy will give particular focus on behavior change communication, especially in areas where cultural practices or certain social beliefs may hinder the smooth and effective implementation of the PCE.

**Monitoring and Evaluation.** The PCE planning process conducted in the four pilot cities need to be monitored and evaluated. This will establish not only the extent of success (or failure) of the pilot, but will also provide key decision-makers - such as the national and local governments and Congress - a good and robust set of knowledge that could inform future national strategic programming (national urban policy agenda) and local project-making.

**Project Management.** Risk assessments at project inception may need to include certain conditions encountered during the pilot run. Some of these include: i) challenges in the production and curation of accurate geographic data by cities (which are doubly limited by accessibility to accurate data sets from national government agencies); ii) low capacities of specific LGU staff along certain competencies required for the efficient implementation of the PCE design and implementation. Examples are land-based financing tools and the dynamics and processes of real estate development.

## **Conclusion**

The four cities that rolled out the PCE pilots all attest to the opportunities provided by the ASUD Project in terms of strengthening LGU capacities and galvanizing efforts of various professionals and sectors towards planning for the development and managing the urbanization process of their respective areas. . This has also further resulted to local stakeholders – in particular the architects and private urban planners – accounting for higher responsibility towards sustainable urban development in their respective cities.

The implementation of the ASUD-PCE project in the Philippines is no longer unknown to many other cities – a significant number of which have since expressed interest in replicating the PCE in their respective urban growth areas. This is taken as a good indicator by those who had taken part in the pilot – that the PCE can in fact be done and replicated, and the issue of “timeliness” is always justified, as urbanization can only further grow and expand over time.

# PLANNED CITY EXTENSION PROJECT SUMMARIES

## ILOILO CITY

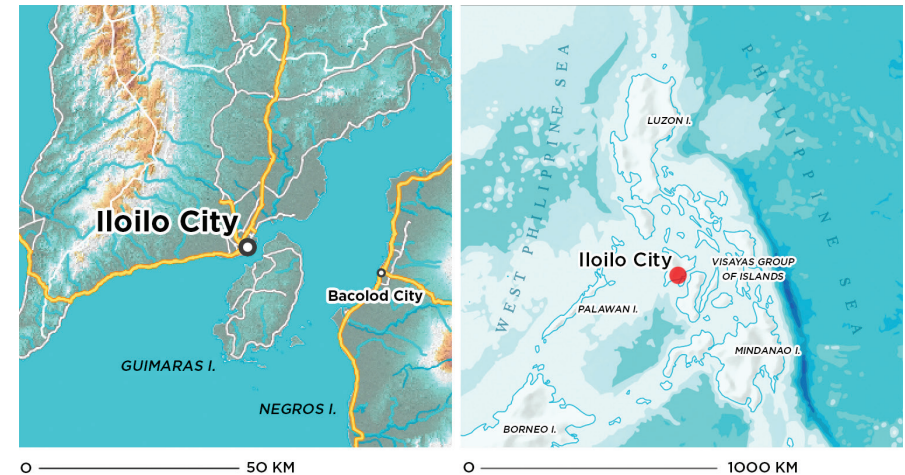
Iloilo City has an approximate land area of 78.34 square kilometers. It is comprised of six districts – Arevalo, Mandurriao, City Proper, Jaro, La Paz and Molo – all covering a total of 180 barangays. The city's 2015 population is 447,992. Household population is about 89,598; while population density is 5,718 persons per square kilometer.

In recent years, Iloilo City has been experiencing rapid urbanization alongside its economic boom as it endeavors toward achieving its goal as a Premier City in 2015. With commercial and housing development sprouting all over the city and the neighboring municipalities, Iloilo City faces serious issues and challenges brought about by fast-paced urban growth. The City confronts the reality of increasing population and massive rural-to-urban migration, evident in the worsening vehicular traffic congestion, unguided urban development and increasing demand for jobs.

The City Government of Iloilo sees the PCE as an opportunity to address these issues and to bring about orderly and sustainable urban development.

### Site Description

The city extension site is located on the northeastern part of Iloilo City, 6.5 kilometers from the city core. The area is approximately 1,152.87 hectares and covers six barangays. Four major roads are key to accessibility to and



within the area - the Circumferential Road and three radial roads that run in a north-south direction (Iloilo Radial By-Pass Road, MacArthur Drive and Coastal Road). The site is mostly privately owned with multiple landowners and has, for most of its area, allocated the lands for residential land use. Additional land uses are apportioned for commercial mixed-use, transportation hubs, and institutional uses. The site, as with the rest of the city, also faces common hazards that include flooding and storm surges, being adjacent to the Iloilo Strait and on the coastal end of the Iloilo River.

## Urban Design

Following the principles of sustainable urban development prescribed by the UN-Habitat, the Iloilo City extension site will:

- integrate new developments with the existing residential subdivisions, commercial facilities and other permanent structures in the site;
- accommodate a *mix of compatible land uses* and integrate standards on *social mix* and *high density*: commercial (20%), residential (25%), parks and open spaces (20%), circulation areas (30%) and community facilities and services (5%). Socialized and economic housing will comprise 20% of the residential areas, low-cost housing will be distributed and located within a maximum radius of 1.5 kilometers from services and employment, tenure types will be mixed, and access control will be exercised with the use of landscape fencing;
- adapt a circulation system for both pedestrian and vehicular movement that encourages walking and bicycling, as well as use of public transport, with provisions for the future introduction of mass rapid transit;
- develop a “center” where public/community facilities, such as parks, schools, health clinics, day-care centers, police and fire stations, and places of worship can be clustered; and
- accommodate a network of open space and parks to serve as components of the site’s flood control and drainage system as well as for recreational and leisure purposes.

It will also include the following special features:

- Reclamation of the coastal area on the eastern side of the site fronting Guimaras Strait to accommodate light industrial and warehousing facilities
- A Special Economic Zone.

## Financing Strategies

**Phased Implementation.** The PCE will follow a phased implementation strategy spanning a period of 20 years, with Phase 1 covering the first five

years (2016-2020). Civil works will be concentrated on the construction of roads to provide connectivity to the rest of the city and neighboring municipalities, and of specific projects that will drive growth in the area. Environmental mitigating measures that will protect the PCE from the hazards of climate change and man-made calamities will also be prioritized. Phasing of development will also be designed according to the capability of urban poor communities to mature socially and financially, ensuring that no one is left behind and everybody is equally given the opportunity to enjoy the fruits of advancement.

**Financing Plan for Phase 1 Capital Requirements.** The installation and financing of infrastructure will begin once the land issues have been addressed and the necessary technical studies completed. As the infrastructures have been clearly identified in the urban plan and design, the next step is to determine the public or private nature of the particular infrastructure goods and services to be provided.

The total estimated cost of Php5.4 billion would be sourced from yearly allocation of the Development Fund, borrowings, national agencies, and private investors. The city can allocate approximately Php80 million per year from its Development Fund to finance the road construction. Financing for public spaces and purchase of right of way will be from borrowings or issuance of debt instruments.

In early 2014, the city had an estimated Php500 million net borrowing capacity. The 2014 and current years’ debt payments should have reduced the city’s total outstanding loans and allow the city to borrow more than Php500 million, sufficient to bridge the calculated financing gap to carry out Phase 1.

The biggest source of financing for Phase 1 will come from the private sector, estimated to be 49% of total capital needs. The next biggest source will come from the national government, representing 37%, and from the city for the remaining 13% of capital expenditures.

**Mixed Financing.** A mix of resources coming from private investors, PCE land owners, city appropriations of its Development Fund, national

government grants, incremental real property and transfer taxes from change in land values, land-based financing, and support from donor agencies will finance the PCE.

The city will have to commit a percentage of the annual Development Fund allocation for the PCE until all the proposed public infrastructures are constructed. Developer exactions, as a land-based financing instrument, will also be explored.

**Revolving Fund.** A revolving fund will sustain liquidity and ensure successful implementation of the PCE. The fund may initially come from allocations from the development funds and additional property and transfer taxes that will provide bridge financing and leverage, while the private sector agreements and loan/grant negotiations are being completed.

**Financing Modalities for Urban Poor Housing.** The provision of housing for the poor involves a range of activities to be funded by different public and private sector participants. Land, site development, housing construction, capacity building, livelihood and employment, and other social services are the major components to be financed. The coordinated combination and leveraging of the financial contributions for these components will be essential to success. The combination of such can range from land acquisition by local government, site development and provision of housing materials loan by national government through the National Housing Authority, private development through community mortgage, or incremental development led by the community members.

**Cost Recovery.** User fees may be charged from the use of facilities and access to services; however, any policy for cost recovery should start with full cost accounting of such facilities and services. This preliminary activity is important to provide a basis of the charges that will be imposed, and assign costs fairly and equitably to various users and beneficiaries of the PCE.

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In this report, easement is used in the place of 'setbacks'.

## Legal and Institutional Road Map for Phase 1

Planning and development of the PCE begins with its "creation," a legal recognition by the local government by form of a City Ordinance that declares the selected site as the PCE district with boundaries, and institutionalizes a local body in charge of administering the PCE. Specifically, the body will promulgate rules and regulations for managing the PCE's development in accordance with its urban plan and design, and will provide tax incentives to attract investors and developers.

In order to be strategically integrated with the city's long-term spatial development plan, amendments to include the PCE in the 2011-2020 Comprehensive Land Use Plan will be made. These will cover a road network plan, land uses and plans for high density areas, investment plans (including types of infrastructure investments), and provision of wider easements along waterways.

Finally, a City Ordinance will be enacted for the acquisition of lands within the PCE following accepted modes of land acquisition (e.g. purchase, expropriation), taking into account financing modalities such as borrowings or issuance of debt instruments.

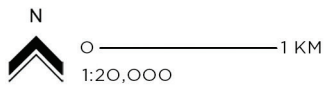
ACHIEVING SUSTAINABLE  
URBAN DEVELOPMENT  
**PLANNED CITY EXTENSIONS**

# Iloilo City Extension Plan

## LEGEND

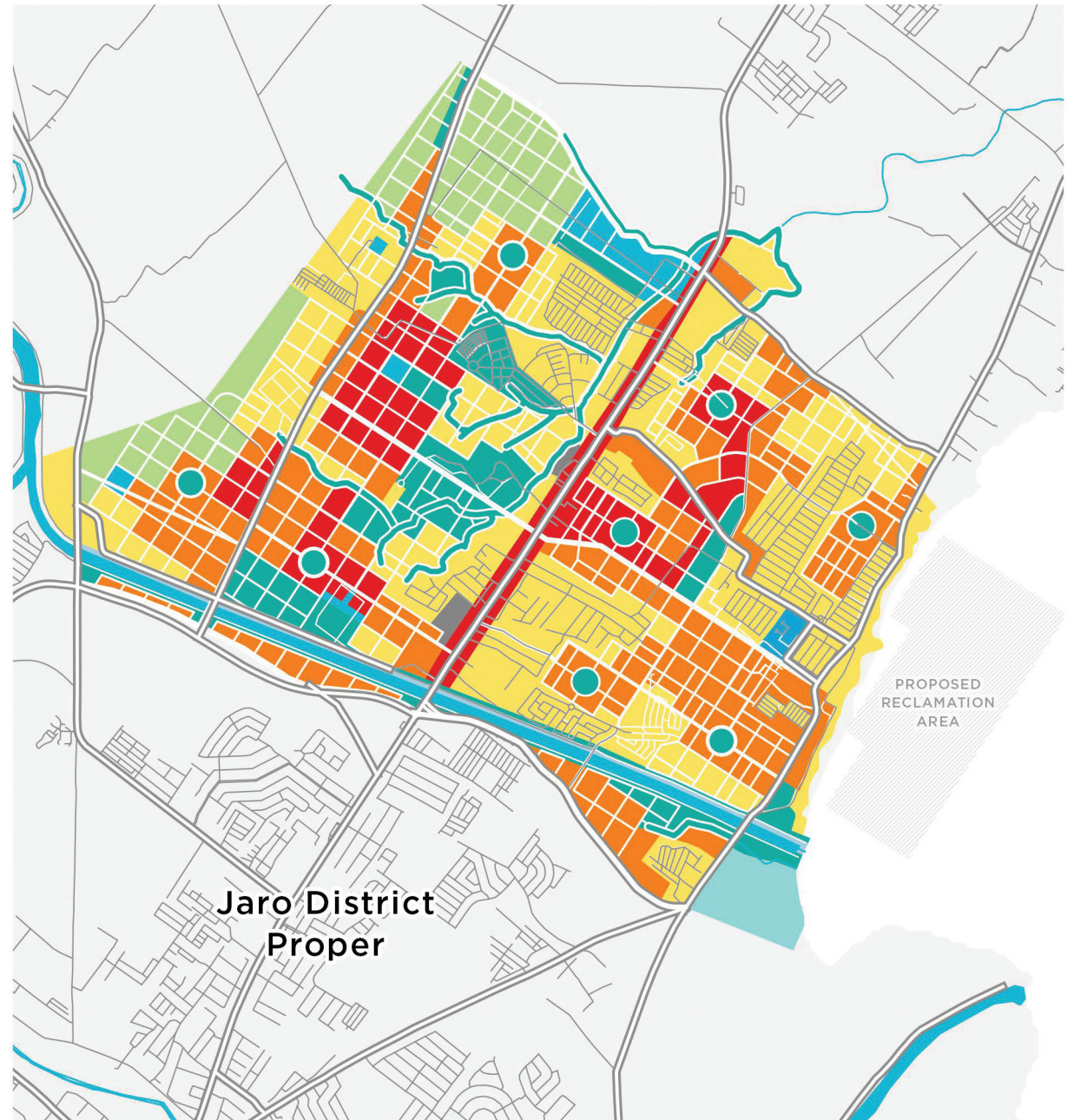
- residential
- commercial
- mixed use
- industrial
- institutional
- public space
- major water body
- agricultural
- existing major collector road
- other existing roads
- other rivers and creeks

Proposed roads are in white lines.



**Projection:** GCS WGS 84  
**Sources:** LGU and residents, fieldwork  
philgis.org, OSM Philippines,  
National & Local Government Units such as  
DOST (Projects NOAH and READY)

The boundaries and designations used on  
this map do not imply official endorsement or  
acceptance by the United Nations. Inquiries  
can be sent to  
[davidjonathangarcia@yahoo.com](mailto:davidjonathangarcia@yahoo.com)

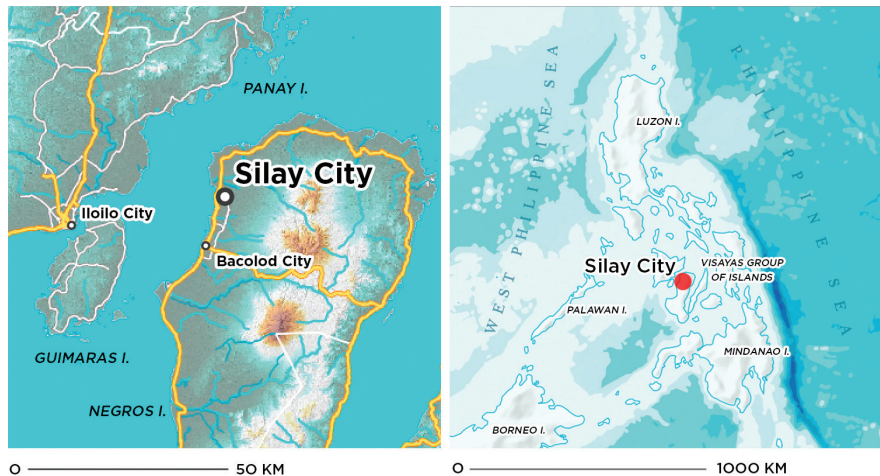


# SILAY CITY

Silay City is situated 15 kilometers north of Bacolod City, the capital of Negros Occidental province. It has 16 barangays and covers a total land area of 214 square kilometers. Total population of the city is 126,930 with 25,386 households and a population density of 591 persons per square kilometer.

Silay City's slow pace of urbanization in the past several years is attributed to its being only 15 minutes away from Bacolod City, the provincial capital and major commercial center. Silay is generally regarded as its "suburb." However, with the opening of the Bacolod-Silay Airport in Silay City in 2007, there are indications that the city's economy is now picking up, the city further urbanizing as more businesses have sprouted in the city's built-up area and along major roads. Tracts of sugarcane farms have also started selling in anticipation of future developments.

This growth, however, is largely unguided and may in the long-run create new, or even worsen, existing urban problems such as the influx of informal settlers in search of livelihood and job opportunities in the city. There are concerns that the city is developing into a maze of inefficiently and incompatibly utilized lots, putting pressure on environmental



sustainability and subsequently devaluing properties and discouraging investors.

The PCE, therefore, is seen as a great opportunity to guide Silay's further urban growth in an orderly and sustainable manner.

## Site Description

The 844.48-hectare city extension site is located approximately two (2) kilometers from the city center. Three primary roads traverse and provide main access to the site: the National Highway running the north-south direction, the Silay-Patag Road connecting east to west, and the Jose Pitong Ledesma Street which also traverses east to west leading to the Bacolod-Silay Airport.

The location, size, accessibility, topography, hydrology, zoning classification, existing utilities, and land ownership of the city extension site represent excellent potentials and opportunities for its development as a planned mixed use community that can absorb Silay City's urban growth and population increase in the coming years. About 60% of the site also belongs to large landholdings, with a network of hacienda roads already weaving through these properties.

## Urban Design

Following the principles of sustainable urban development prescribed by the UN-Habitat, the city extension site will:

- follow a *mixed land use* structure distributed among commercial use, residential use, parks and public open spaces, institutional use, and agro-industrial use (food processing). These land use categories, however, do not mean exclusivity but rather refer only to the predominant use.
- sustain *high density* and *social mix* in residential developments through consistent adherence to the Urban Development and Housing Act and the socialized housing standards prescribed in



Batas Pambansa 220. This means that a housing project with an average lot size of 64 square meters, and a 70/30 percent saleable/non-saleable (streets and parks) ratio, will result in a density of 466 persons per hectare – higher than the prescribed UN-Habitat standard of 150 persons per hectare. It also means that socialized housing automatically comprises 20% of all residential developments. For the past several years, most if not all residential developments in Silay have used BP 220 standards, thus resulting in a large supply of socialized housing.

- develop a cluster of superblocks of varying sizes and shapes, framed by major roads and waterways, and subdivided by local streets that will enhance walking and bicycling.

It will also include the following special features:

- a transit oriented development (TOD) where the planned mix of land uses can be envisioned to become satellite urban centers comprised of commercial areas, affordable housing, and community facilities
- Bus Rapid Transit (BRT) routes for more efficient travel especially in terms of travel time and safety

## Financing Strategies

**Phased implementation.** The PCE will follow a phased implementation strategy spanning a period of 20 years, with Phase 1 covering the first five years (2016-2020). Initial civil works will be concentrated on the construction of major and minor local roads to provide connectivity within the PCE and to the rest of the city. It also plans to develop the specific projects that will drive growth in the area. Phasing of development will also be designed according to the capability of urban poor communities to mature socially and financially, ensuring that no one is left behind and everybody is equally given the opportunity to enjoy the fruits of advancement.

**Financing Plan for Phase 1 Capital Requirements.** The installation and financing of infrastructure will begin once the land issues have been addressed and the necessary technical studies completed. As the infrastructures have been clearly identified in the conceptual plan, the

next step is to determine the public or private nature of the particular infrastructure goods and services to be provided.

The total estimated cost of Php1.5 billion would be sourced from yearly allocation of the Development Fund, borrowings, national agencies, and private investors. The city can allocate approximately Php8 million per year from its Development Fund to finance road construction, half of the cost of the road right of way and parts of the public spaces. Financing for a bigger part of the public spaces and road network will be from borrowings or issuance of debt instruments. In early 2014, the city had an estimated Php498 million net borrowing capacity, well above the needed borrowing requirement. New real property and business taxes can be the sources of repayments of the loans.

Private investors will finance commercial and mixed-use developments while the landowners will donate half of the cost of the road right of way. All primary and tertiary roads and a portion of major collector road totaling 18 hectares in area are considered national roads and will be funded by national grants. A portion of existing local roads will be proposed to be funded by the national government while all minor collector and local streets will be considered private in nature and will be funded by private developers.

The biggest source of financing for Phase 1 will come from the national government, estimated to be 52% of total capital needs. This amount will be used mainly for the upgrade of all national roads and construction of the road that will link critical clusters (Cluster G to Cluster D and across Cluster C). The next contributor to PCE financing is the private sector, taking on 27% while the local government will finance the remaining 21% of capital expenditures.

**Mixed Financing.** A mix of resources coming from private investors, PCE land owners, city appropriations of its Development Fund, national government grants, incremental real property and transfer taxes from change in land values, land-based financing, and support from donor agencies will finance the PCE.

The city will have to commit a percentage of the annual Development

Fund allocation for the PCE until all the proposed public infrastructures are constructed. Betterment charges or levies, as form of land-based financing, will also be considered.

**Revolving Fund.** A revolving fund will sustain liquidity and ensure successful implementation of the PCE. The fund may initially come from allocations from the development funds and additional property and transfer taxes that will provide bridge financing and leverage, while the private sector agreements and loan/grant negotiations are being completed.

**Financing Modalities for Urban Poor Housing.** The provision of housing for the poor involves a range of activities to be funded by different public and private sector participants. Land, site development, housing construction, capacity building, livelihood and employment, and other social services are the major components to be financed. The coordinated combination and leveraging of the financial contributions for these components will be essential to success. The combination of such can range from land acquisition by local government, site development and provision of housing materials loan by national government through the National Housing Authority, private development through community mortgage, or incremental development led by the community members.

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## Legal and Insitutional Roadmap for Phase 1

Planning and development of the PCE begins with its "creation," a legal recognition by the local government by form of a City Ordinance that declares the selected site as the PCE district with boundaries, and institutionalizes a local body in charge of administering the PCE. Specifically, the body will promulgate rules and regulations for managing

the PCE's development in accordance with its urban plan and design, and will provide tax incentives to attract investors and developers.

In order to be strategically integrated with the city's long-term spatial development plan, amendments to include the PCE in the City's Comprehensive Land Use Plan will be made. Essential to the amendments will be the reclassification of all agricultural landholdings within the PCE to residential, commercial, industrial, and other non-agricultural land uses. Once reclassification is reflected on the amended CLUP, the process of land-use conversion to be filed by the private landowners before the Department of Agrarian Reform will be initiated, with technical and coordination support from the City Government. The city can pass a Resolution encouraging landowners to file for the conversion of these properties; and as such, establish a sense of urgency and seriousness for this purpose.

Right of way acquisition of the private landholdings will also be needed for roads, streets and open spaces within the PCE area. For this, the city can pass a Resolution encouraging the donation of such properties and giving the landowners tax credits, pursuant to the Silay City Investment Code. In the event landowners will not donate lands for roads, streets and open spaces within the PCE, the City can enact an ordinance for land acquisition following accepted modes of land acquisition, such as negotiated purchase or expropriation.

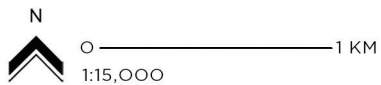
ACHIEVING SUSTAINABLE  
URBAN DEVELOPMENT  
**PLANNED CITY EXTENSIONS**

# Silay City Extension Plan

## LEGEND

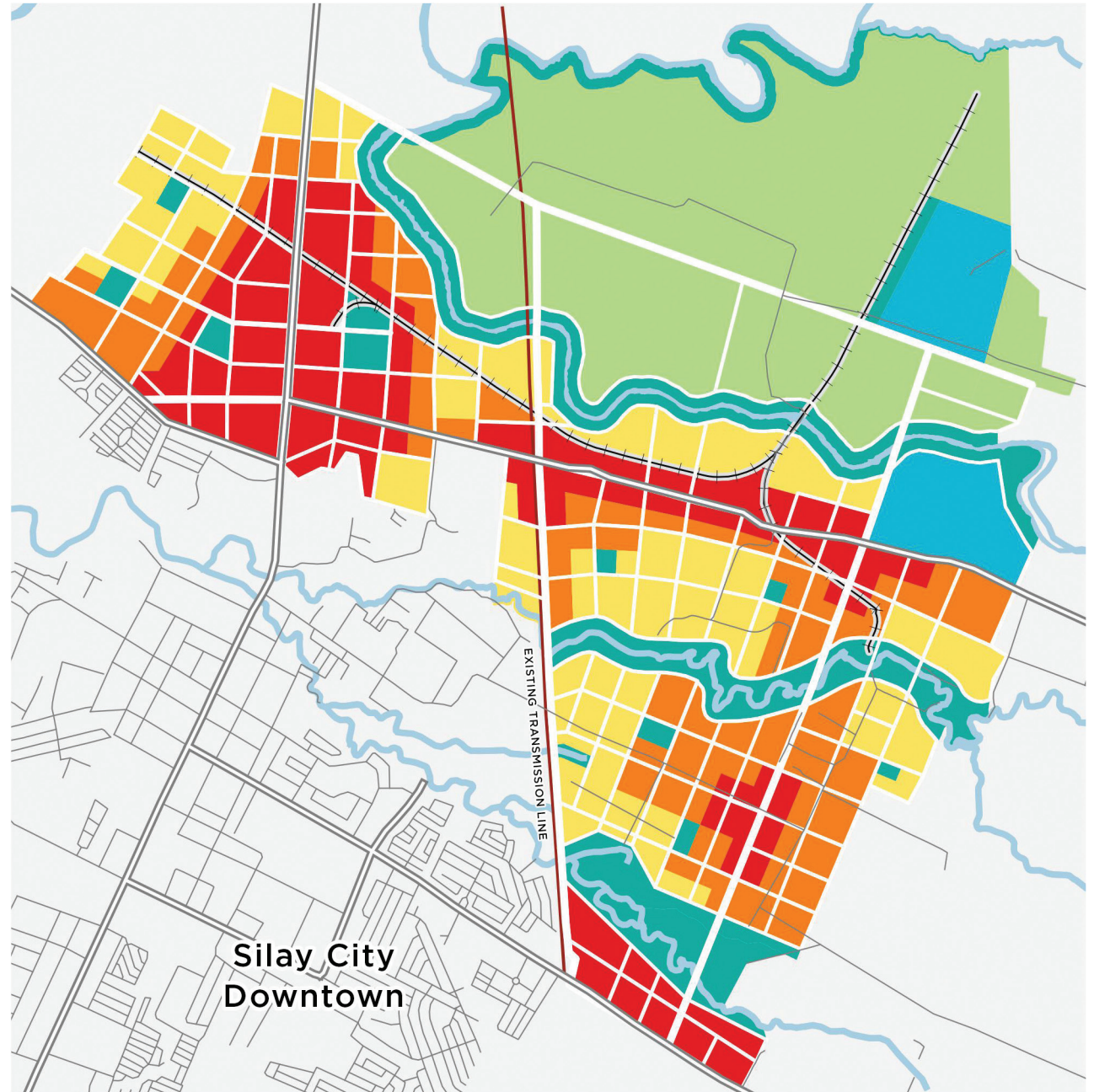
- residential
- commercial
- mixed use
- agricultural
- institutional
- public space
- major water body
- existing rail
- existing major collector road
- other existing roads
- other rivers and creeks

Proposed roads are in white lines.



**Projection:** GCS WGS 84  
**Sources:** LGU and residents, fieldwork  
 philgis.org, OSM Philippines,  
 National & Local Government Units such as  
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 this map do not imply official endorsement or  
 acceptance by the United Nations. Inquiries  
 can be sent to  
[davidjonathangarcia@yahoo.com](mailto:davidjonathangarcia@yahoo.com)



# CAGAYAN DE ORO CITY

Cagayan de Oro City has an approximate land area of 578.5 square kilometers. Its population as of 2015 is 675,950, with population density of 1,168 persons per square kilometer. The city has a total of 30 barangays and a household population of 135,190.

Cagayan de Oro envisions the planned city extension as a growth node that will trigger development in the underserved areas of the city. The urban core of Cagayan de Oro, reckoned from the city hall, is increasingly dense and characterized by sprawl, with all kinds of activities whose locations are not planned or rationalized. This results in traffic congestion and limited accessibility to basic services.

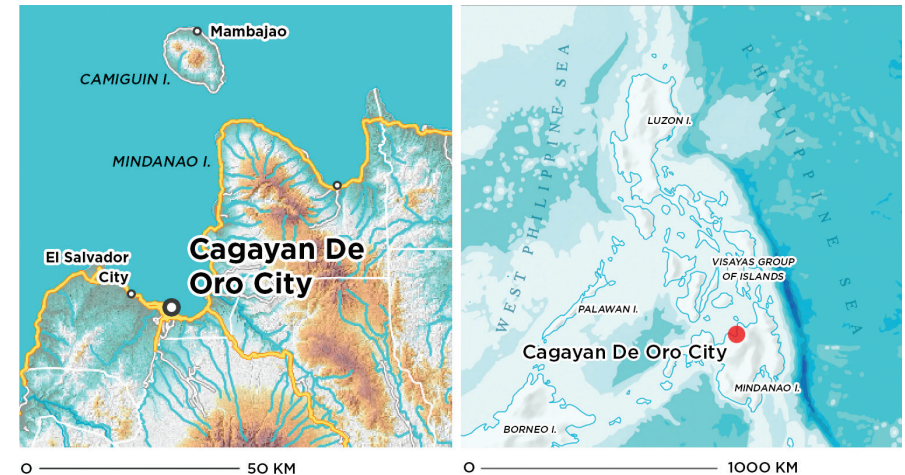
The PCE is designed to respond to a felt need to decongest the Cagayan de Oro urban center and develop a planned area that will provide public services and generate socio-economic opportunities. Thus, the PCE aims to support the distribution of urban activities from the central business district to the other barangays in a planned, rational manner.

## Site Description

The extension site is an 888.83-hectare area in Barangay Lumbia and is part of the West-Uptown urban expansion area identified by the Cagayan de Oro City Government in its 2013-2022 Comprehensive Land Use Plan (CLUP). Lumbia is located at the midpoint of the north-south axis of Cagayan de Oro, about 10 kilometers from the city center. One of its advantages over other barangays is its elevation of 180 meters above sea level, making it safer than the rest of the city from flooding or storm surge. Its location is also considered ideal because of the presence of a wide tract of land that is available for development under the PCE.

## Urban Design

Following the principles of sustainable urban development prescribed by the UN-Habitat, the Cagayan de Oro City extension site will:



- follow a *mixed land use* structure and integrate standards on *social mix* and *high density* by creating self-sustaining communities and enhancing accessibility to public services. Specifically, the PCE will be characterized by residential, institutional, commercial, and agri-processing uses, supported by community and shelter facilities, power, water and sanitation systems, parking and circulation networks, interspersed with large public spaces (comprising 38.83% of the total PCE area), including an ecological corridor, several community parks and green spaces, and public urban facilities
- design and implement a building program that promotes mixed residential and other economic uses. The PCE will put in place a sustainable mix of single-storey and medium-rise buildings in order to serve as many residents and meet even the City's future shelter requirements.

## Financing Strategies

**Phased Implementation.** The PCE will follow a phased implementation strategy spanning a period of 20 years, with Phase 1 covering the first five

years (2016-2020). Civil works will be concentrated on the construction of roads to provide connectivity to the rest of the city and neighboring municipalities, and of specific projects that will drive growth in the area. Environmental mitigating measures that will protect the PCE from the hazards of climate change and man-made calamities will also be prioritized. Phasing of development will also be designed according to the capability of urban poor communities to mature socially and financially, ensuring that no one is left behind and everybody is equally given the opportunity to enjoy the fruits of advancement.

**Financing Plan for Phase 1 Capital Requirements.** The installation and financing of infrastructure will begin once the land issues have been addressed and the necessary technical studies completed. As the infrastructures have been clearly identified in the urban plan and design, the next step is to determine the public or private nature of the particular infrastructure goods and services to be provided.

It is estimated that the city can allocate approximately Php80 million per year from its development fund which can be used to fund the easement roads, purchase right of way for the minor collector roads and partially fund the construction of the same minor collector roads. The national government will be requested to fund all the major collector roads and main boulevard that can be classified as national roads. The capital requirements for local roads will have to be borne by the private investors who will develop the areas according to the proposed land use. Considering the current borrowing capacity of the city at Php780 million, it is proposed that the remaining capital requirements for the construction of roads amounting to Php313 million and the proposed government center for Php163 million be sourced from official development assistance funds at preferential loan terms.

**Mixed Financing.** A mix of resources coming from private investors, PCE land owners, city appropriations of its Development Fund, national government grants, incremental real property and transfer taxes from change in land values, land-based financing, and support from donor agencies will finance the PCE.

The city will have to commit a percentage of the annual Development Fund allocation for the PCE until all the proposed public infrastructures are constructed.

To support the long-term financing of the PCE, Cagayan de Oro is considering to implement betterment charges and developer exactions as applicable LBF instruments in the city.

**Revolving Fund.** A revolving fund will sustain liquidity and ensure successful implementation of the PCE. The fund may initially come from allocations from the development funds and additional property and transfer taxes that will provide bridge financing and leverage, while the private sector agreements and loan/grant negotiations are being completed.

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**Cost Recovery.** User fees may be charged from the use of facilities and access to services; however, any policy for cost recovery should start with full cost accounting of such facilities and services. This preliminary activity is important to provide a basis of the charges that will be imposed, and assign costs fairly and equitably to various users and beneficiaries of the PCE.

## **Legal and Institutional Road Map for Phase 1**

Planning and development of the PCE begins with its "creation," a legal recognition by the local government by form of a City Ordinance that declares the selected site as the PCE district with boundaries, and insitutionalizes a local body in charge of administering the PCE. Specifically, the body will promulgate rules and regulations for managing the PCE's development in accordance with its urban plan and design, and will provide tax incentives to attract investors and developers.

In order to be strategically integrated with the city's long-term spatial development plan, amendments to include the PCE in the City's Comprehensive Land Use Plan will be made. Essential to the amendments will be the reclassification of all agricultural landholdings within the PCE to residential, commercial, industrial, and other non-agricultural land uses. Once reclassification is reflected on the amended CLUP, the process of land-use conversion to be filed by the private landowners before the Department of Agrarian Reform will be initiated, with technical and coordination support from the City Government.

Finally, official representation through the City's district representatives (Congressmen) for the transfer of ownership of the old Lumbia Airport from the Civil Aviation Authority of the Philippines to the City Government, will also need to be implemented.

ACHIEVING SUSTAINABLE  
URBAN DEVELOPMENT  
**PLANNED CITY EXTENSIONS**

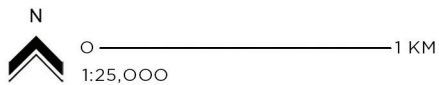
# Cagayan De Oro City Extension Plan

## LEGEND

- residential
- commercial
- mixed use
- industrial
- institutional
- public space
- terminal

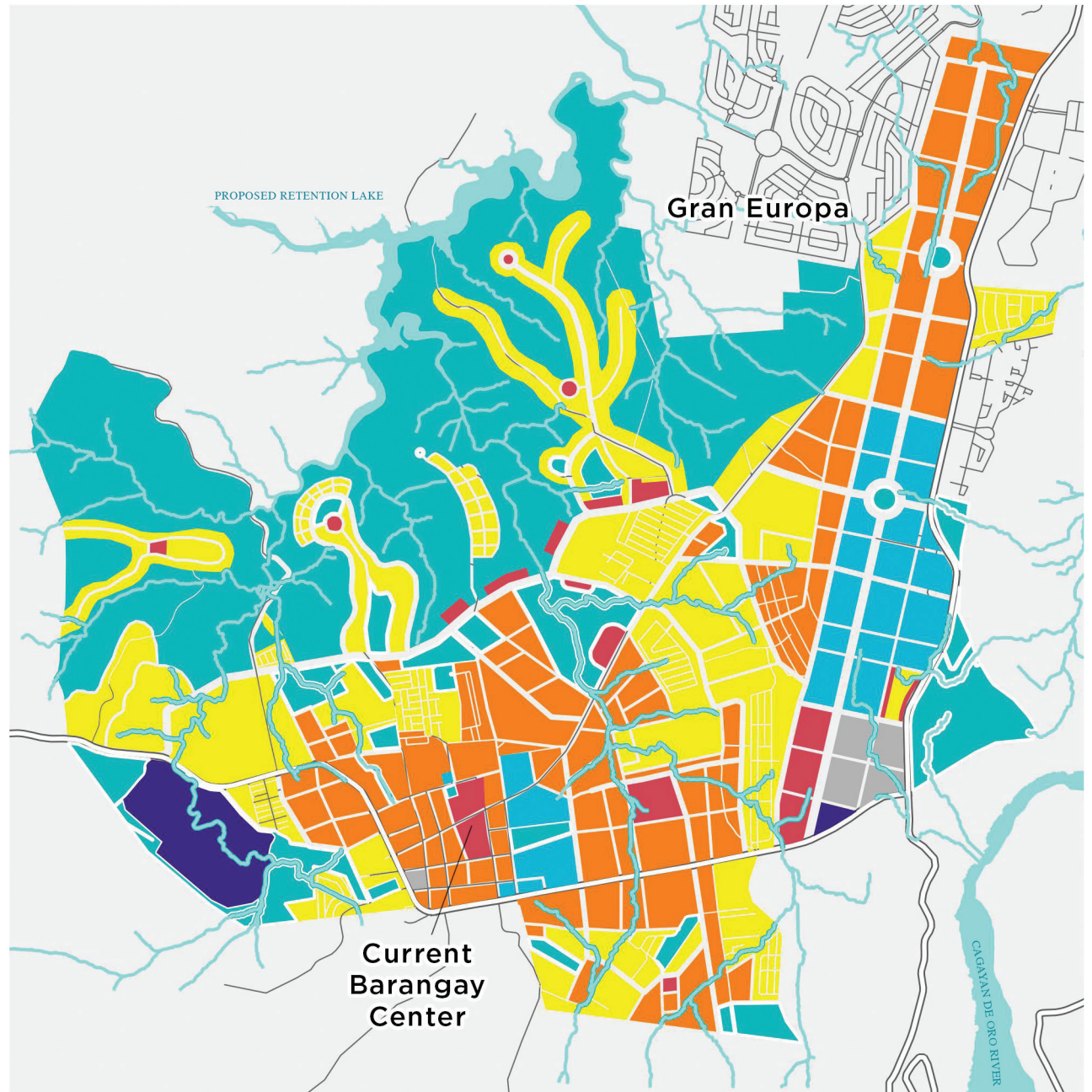
- existing major collector road
- other existing roads
- rivers and creeks

Proposed roads are in white lines.



**Projection:** GCS WGS 84  
**Sources:** LGU and residents, fieldwork philgis.org, OSM Philippines, National & Local Government Units such as DOST (Projects NOAH and READY)

The boundaries and designations used on this map do not imply official endorsement or acceptance by the United Nations. Inquiries can be sent to [davidjonathangarcia@yahoo.com](mailto:davidjonathangarcia@yahoo.com)



# ZAMBOANGA CITY

Zamboanga City is a medium-sized growing city located at the southernmost tip of the Zamboanga Peninsula in Mindanao. It is bounded on the west by Sulu Sea, on the east by the Moro Gulf, on the north by Zamboanga Sibugay Province, and on the south by the Basilan Strait and Celebes Sea. The city's population as of 2015 is 861,799; while population density is 580 persons per square kilometer.

In 1983, it was officially declared a highly urbanized city. By 1990, it was designated as the region's commercial and industrial center by virtue of Executive Order No. 429 signed by then President Corazon C. Aquino. Over the last few decades, much of the urban development of Zamboanga City occurred within the 7-kilometer radius from the urban core, so that by 2015, 30 barangays have become classified as "urban," while 68 have remained as "rural" barangays. Half of the city's residents (56.01%) now live in the urban areas, which occupy only 6,782 hectares, or just 4.57% of the city's total land area.

Zamboanga City envisions its Planned City Extension as a growth node that will trigger development in the underserved areas of the city.



## Site Description

The 879.52-hectare city extension site is located in Barangay Mercedes, adjacent to the proposed Zamboanga International Airport. It is surrounded by four rural barangays (Talabaan, Culianan, Boalan, and Zambowood), and one urban barangay (Pasobolong).

Road networks surrounding the city include the Maria Clara Lorenzo Lobregat (MCLL) Highway (a national road), Sta. Filomena Street, and Zone 7 Asinan Road. MCLL serves as the main thoroughfare; it passes through Carriagas Street which leads to the site's interior.

It has been used previously for residential and agricultural activities. Portions are still used for agricultural purposes - mainly for fish farming, tree orchards and grazing areas. Existing structures within the site include a 2.69-square kilometer public cemetery, a private memorial park, a military detachment, and three residential subdivisions.

Much of the PCE though is grazing land and grassland, with a flat slope, mainly 0-8 percent. The PCE's elevation is 10 meters above sea level.

## Urban Design

Following the principles of sustainable urban development prescribed by the UN-Habitat, the Zamboanga City extension site will:

- integrate new developments with the existing residential subdivisions, commercial facilities, and other permanent structures in the site;
- accommodate a mix of compatible land uses and integrate standards on social mix and high density: commercial (20%), residential (25%), parks and open spaces (20%), circulation areas (30%) and community facilities and services (5%). Socialized and economic housing will comprise 20% of the residential areas, low-cost housing will be distributed and located within a maximum radius of 1.5 kilometers from services and employment, tenure types will be mixed, and access control will be exercised with the use of landscape fencing;



- adapt a circulation system for both pedestrian and vehicular movement that encourages walking and bicycling, as well as use of public transport, with provisions for the future introduction of mass rapid transit;
- develop a “center” where public/community facilities, such as parks, schools, health clinics, day-care centers, police and fire stations, and places of worship can be clustered; and
- accommodate a network of open space and parks to serve as components of the site’s flood control and drainage system as well as for recreational and leisure purposes.

## Financing Strategies

**Phased Implementation.** The PCE will follow a phased implementation strategy spanning a period of 20 years, with Phase 1 covering the first five years (2016-2020). Civil works will be concentrated on the construction of roads to provide connectivity to the rest of the city and neighboring municipalities, and of specific projects that will drive growth in the area. Environmental mitigating measures that will protect the PCE from the hazards of climate change and man-made calamities will also be prioritized. Phasing of development will also be designed according to the capability of urban poor communities to mature socially and financially, ensuring that no one is left behind and everybody is equally given the opportunity to enjoy the fruits of advancement.

**Financing Plan for Phase 1 Capital Requirements.** The installation and financing of infrastructure will begin once the land issues have been addressed and the necessary technical studies completed. As the infrastructures have been clearly identified in the urban plan and design, the next step is to determine the public or private nature of the particular infrastructure goods and services to be provided.

The total estimated cost of Php5.4 billion would be sourced from yearly allocation of the Development Fund, borrowings, national agencies, and private investors. The city can allocate approximately Php80 million per year from its Development Fund to finance the road construction. Financing for public spaces and purchase of right of way will be from

borrowings or issuance of debt instruments.

In early 2014, the city had an estimated Php500 million net borrowing capacity. Debt payments for 2014 and 2015 should have reduced the city’s total outstanding loans - therefore allowing it to borrow more than Php500 million - sufficient to bridge the calculated financing gap to carry out Phase 1.

The biggest source of financing for Phase 1 will come from the private sector, estimated to be 49% of total capital needs. The next biggest source will come from the national government, representing 37%; and from the city, the remaining 13% of capital expenditures.

**Mixed Financing.** A mix of resources coming from private investors, PCE land owners, city appropriations of its Development Fund, national government grants, incremental real property and transfer taxes from change in land values, and donor agencies will finance the PCE.

The city will have to commit a percentage of the annual Development Fund allocation for the PCE until all the proposed public infrastructures are constructed. Betterment charges or levies, as form of land-based financing, will also be explored.

**Revolving Fund.** A revolving fund will sustain liquidity and ensure successful implementation of the PCE from the Development Fund as well as the additional property and transfer taxes. These will provide bridge financing and leverage while the private sector agreements and loan/grant negotiations are being completed. Betterment charges or levies, as form of land-based financing, will also be explored.

**Financing Modalities for Urban Poor Housing.** The provision of housing for the poor involves a range of activities to be funded by different public and private sector participants. Land, site development, housing construction, capacity building, livelihood and employment, and other social services are the major components to be financed. The coordinated combination and leveraging of the financial contributions for these components will be essential to success. The combination of such can range from land acquisition by local government, site development and

provision of housing materials loan by national government through the National Housing Authority, private development through community mortgage, or incremental development led by the community members.

**Cost Recovery.** User fees may be charged from the use of facilities and access to services; however, any policy for cost recovery should start with full cost accounting of such facilities and services. This preliminary activity is important to provide a basis of the charges that will be imposed, and assign costs fairly and equitably to various users and beneficiaries of the PCE.

### **Legal and Institutional Road Map for Phase 1**

The planning and development of a Planned City Extension begins with legal recognition by a Local Government Unit. This comes in the form of a City Ordinance that declares the selected site as the 'PCE district' with its boundaries and institutionalizes a local body in charge of administering the PCE. This body will promulgate rules and regulations for managing the PCE's development in accordance with its urban plan and design, and will provide tax incentives to attract investors and developers.

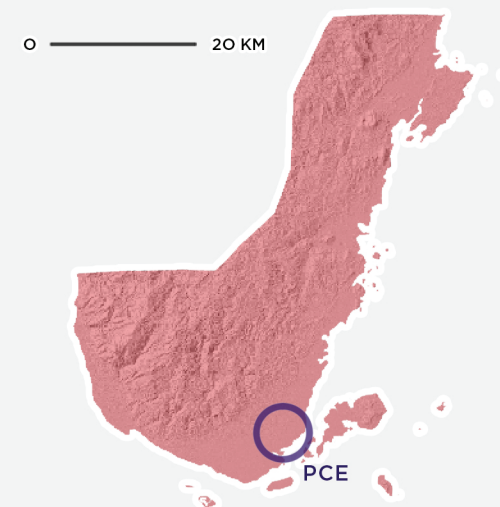
In order to be strategically integrated with the city's long-term spatial development plan, amendments to include the PCE in the 2011-2020 Comprehensive Land Use Plan will be made. These will cover a road network plan, land uses and plans for high density areas, investment plans (including types of infrastructure investments), and provision of wider easements along waterways.

Finally, a City Ordinance will be enacted for the acquisition of lands within the PCE following accepted modes of land acquisition (e.g. purchase, expropriation), taking into account financing modalities such as borrowings or issuance of debt instruments.

**KEY DATA ON THE ASUD PILOT CITIES AND LOCATIONS OF THE PLANNED CITY EXTENSIONS (PCEs)**

KEY FIGURES FROM  
Philippine Statistics Authority (PSA)

CARTOGRAPHY BY:  
David Jonathan C. Garcia



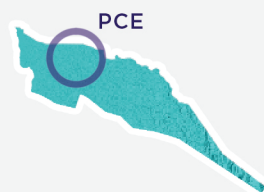
**Iloilo City**  
Iloilo Province

**CLASSIFICATION**  
1<sup>ST</sup> class

**POPULATION**  
447,992 (2015)

**LAND AREA**  
7,834 ha (2007)

**ENVIRONMENT**  
FLAT AND COASTAL



**Silay City**  
Negros Occidental

**CLASSIFICATION**  
3<sup>RD</sup> class

**POPULATION**  
126,930 (2015)

**LAND AREA**  
21,480 ha (2007)

**ENVIRONMENT**  
FLAT, COASTAL, WITH  
UPLAND AREAS



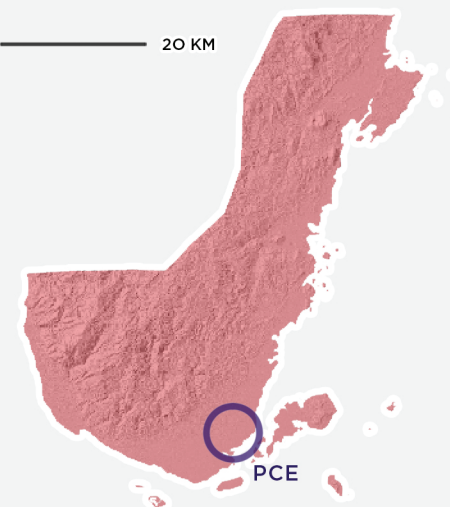
**Cagayan De Oro City**  
Misamis Oriental

**CLASSIFICATION**  
1<sup>ST</sup> class

**POPULATION**  
675,950 (2015)

**LAND AREA**  
41,280 ha (2007)

**ENVIRONMENT**  
COASTAL, HILLY, AND  
MOUNTAINOUS



**Zamboanga City**  
Zamboanga Peninsula

**CLASSIFICATION**  
1<sup>ST</sup> class

**POPULATION**  
861,799 (2015)

**LAND AREA**  
141,470 ha (2007)

**ENVIRONMENT**  
DIVERSE, FROM COASTAL, LOWLAND,  
HILLY, TO MOUNTAINOUS

**COMPARISON OF UNSUSTAINABLE URBAN DEVELOPMENT WITH SUSTAINABLE ALTERNATIVES**

-  River
-  Road network
-  Agricultural
-  Public space
-  Residential
-  Commercial
-  Mixed use
-  Institutional

**Unsustainable**  
Urban Development



**Sustainable**  
Urban Development

**SPRAWLING**

Creates large and low-density blocks that make trips longer.

**EXCLUSIVE**

Separates places, peoples, and activities from each other.

**SEGREGATED**

Disjointed road network with no clear hierarchy.

**VULNERABLE**

Marginalizes, constricts, & fragments water, farmland, & parks.

**COMPACT**

Builds smaller, walkable, and densified blocks.

**INCLUSIVE**

Diversifies peoples and uses within the district, block, and building.

**CONNECTED**

Interconnects roads and streets with a clear hierarchy.

**RESILIENT**

Makes room for water through public spaces & conserves farmland.

INFOGRAPHIC DRAWN BY  
David Jonathan C. Garcia

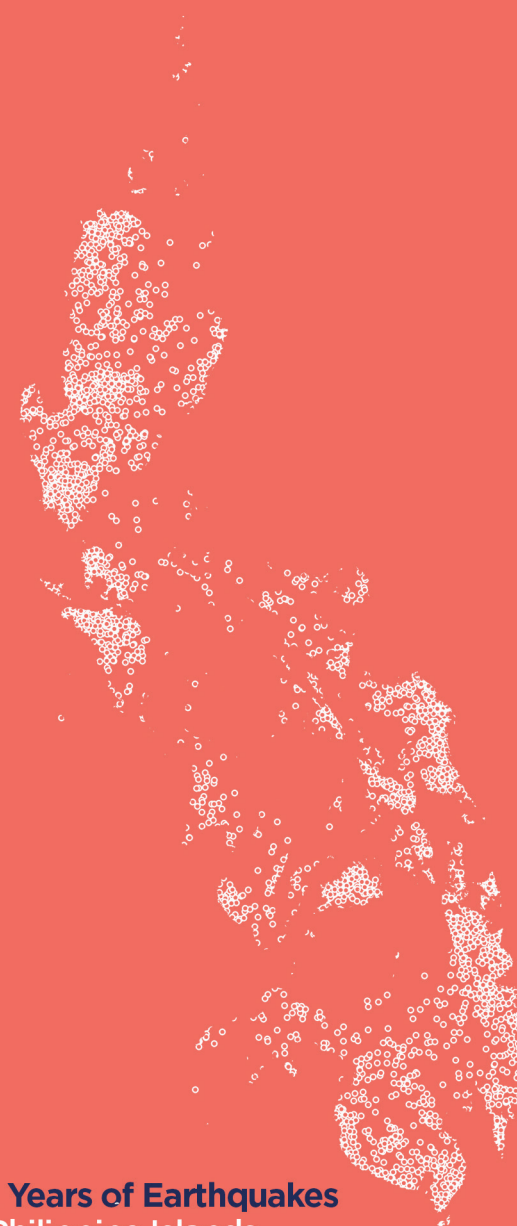




## Fifty Years of Cyclone Paths inside the Philippine Islands

Sources  
NOAA (cyclone path shapefile)  
PHILGIS (country shapefile)

Map created by David Garcia  
david.garcia.ph@gmail.com  
19 March 2016



## A Hundred Years of Earthquakes inside the Philippine Islands

Sources  
USGS (earthquake location shapefile)  
PHILGIS (country shapefile)

Map created by David Garcia  
david.garcia.ph@gmail.com  
19 March 2016

## LIST OF ACRONYMS

<b>AECID</b>	Spanish Agency for International Development Cooperation
<b>ASUD</b>	Achieving Sustainable Urban Development
<b>BLGF</b>	Bureau of Local Government and Finance
<b>CC-VAA</b>	Climate Change Vulnerability and Adaptation Assessment
<b>CDP</b>	Comprehensive Development Plan
<b>CLUP</b>	Comprehensive Land Use Plan
<b>CSO</b>	Civil Society Organization
<b>HLURB</b>	Housing and Land Use Regulatory Board
<b>HUDCC</b>	Housing and Urban Development Coordinating Council
<b>IRA</b>	Internal Revenue Allotment
<b>LCP</b>	League of Cities of the Philippines
<b>LED</b>	Local Economic Development
<b>LGU</b>	Local Government Unit
<b>PCE</b>	Planned City Extension
<b>PSC</b>	Project Steering Committee
<b>ROAP</b>	Regional Office in Asia and the Pacific
<b>TWG</b>	Technical Working Group
<b>UDHA</b>	Urban Development and Housing Framework



