

Prosperity Fund

GLOBAL FUTURE CITIES PROGRAMME

CEBU

CITY CONTEXT REPORT



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Global Future Cities Programme
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City Context Report

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GLOBAL FUTURE CITIES PROGRAMME

Introduction

ABOUT THE GLOBAL FUTURE CITIES PROGRAMME

In 2015, the UK government created a new Cross-Government Prosperity Fund worth £1.3 billion from 2016-2021, in order to help promote economic growth in emerging economies. Its broad priorities include improving the business climate, competitiveness and operation of markets, energy and financial sector reform, and increasing the ability of governments to tackle corruption.

Emerging Economies still face considerable challenges such as uncontrolled urbanisation, climate change and high and persistent inequality which can lower long-term growth prospects. The Prosperity Fund supports the broad-based and inclusive growth needed to build prosperity and reduce poverty, but also make development overall more sustainable through the strengthening of Institutions and Improvement of the global business environment.

The Global Future Cities Programme (GFCP) is a specific component of the Prosperity Fund which aims to carry out targeted interventions to encourage sustainable urban development and increase prosperity whilst alleviating high levels of urban poverty. The programme will also create significant short and long-term business opportunities in growing markets, forecast to be regional growth hubs, including for UK exporters who are world recognised leaders in urban innovation.

The overall strategy of the Global Future Cities Programme is to deliver the Programme in two phases; a strategic development phase (2018), followed by an implementation phase (2019-2021). UN-Habitat, in collaboration with the International Growth Centre (IGC) and the UK Built Environment Advisory Group (UKBEAG), has been mandated by the UK Foreign and Commonwealth Office (UK FCO) to develop and undertake the strategic development phase. This in turn, will inform and shape the implementation phase,

and collectively provide further evidence for the overall programme.

The Programme builds upon a coherent series of targeted interventions in 19 cities across 10 countries, to support and encourage the adoption of a more sustainable approach to urban development. In general, the proposed interventions aim to challenge urban sprawl and slum developments, thereby promoting more dense, connected and inclusive cities that in combination contribute to prosperity, achieving the Sustainable Development Goals (SDGs) and implementing the New Urban Agenda (NUA).

The Global Future Cities Programme builds upon three integrated pillars, that will address key barriers to prosperity, in selected cities:

- **Urban planning** – technical assistance for spatial restructuring (Public space, Heritage and urban renewal, Urban strategies and plans, Data systems for integrated urban planning);
- **Transportation** – technical assistance to support cities to develop integrated transport systems (Multi-modal mobility strategies and plans, Data systems for multi-modal mobility);
- **Resilience** – technical assistance to develop strategies to address the impact of climate change and ensure development is sustainable (Flood management plans and systems).

In order to capitalize on the proposed interventions and to ensure sustainability and impact in a longer-term perspective, the programme has a strong focus on technical support and institutional capacity development.

In many of the interventions, there is a particular focus on the potential of embedding smart/digital technology and data analysis platforms in urban governance and management processes. Integrating smart technologies is recognized as an instrumental area that significantly can improve the efficiency in the provision of key infrastructure services, enhance urban resilience, support evidence-based plans and strategies and promote integrated planning approaches across sectors.

INTERVENTION DEVELOPMENT AND VALIDATION

Based on initial scoping studies and government-to-government engagement carried out by UK FCO, the UN-Habitat team worked with partner local authorities and wider stakeholders to corroborate their city development strategies, and to confirm, enhance and develop the intervention proposals.

In each city, a Local City Specialist, supported by the national and regional country offices of UN-Habitat



and in liaison with the FCO local posts, took the lead in identifying stakeholders in a series of bilateral meetings, interviews and focal group discussions. This has collectively gathered information and provided more detailed knowledge and information on the City's visions and goals.

Based on this initial phase, a Charrette (planning workshop) involved high-level decision-makers from the public and private sectors together with civil society representatives. This facilitated discussion on the proposed and possible alternative interventions, related individual interests, technical opportunities and constraints, as well as political objectives. The outcome of the Charrette provided clarity on where stakeholders stand in relation to the strategic potential of the discussed projects and it allowed for the mobilisation of support.

At the same time, the Charrette allowed for the technical teams to proceed with the development of a Terms of Reference, outlining the specific scope and activities of each intervention. A final Validation Workshop assured consensus on the proposed projects and document's endorsement by the authorities.

Parallel to preparing the Terms of Reference, an evaluation of the interventions was initiated, aiming to address its feasibility within the local strategic context, identify potential impact on prosperity barriers and to explore the optimal delivery models. This process resulted

in a set of City Context Reports as well as an analysis of the technical viability of the interventions. The analysis aimed at both informing the development of the Terms of Reference and the future implementation phase of the Programme.

THE CITY CONTEXT REPORT

Objectives

A City Context Report is provided for each city of the Global Future Cities Programme. It serves as a tool to frame the proposed Programme interventions within the characteristics and pre-conditions of each city.

The Report targets a variety of stakeholders in the Programme: administrators, city managers, policy makers, legislators, private sector actors, donors, and local as well as international researchers and knowledge generators. The Reports also provide UKFCO the contextual setting of each proposed intervention, and can in addition, be used by the Service Providers as an entry point for the implementation phase.

By addressing the specific challenges facing each city, the Report illustrates how the interventions can work towards inclusive prosperity and sustainable urban development. The benefits of each intervention, however, cannot be achieved without certain enabling conditions to ensure its success. Therefore, critical aspects for the delivery of the proposed interventions and its success from a long-term perspective are outlined. Using thematic

best practices and evidence from global learnings and research, contextualised recommendations are provided on the conditions necessary for the intervention to be viable and to reach a maximum impact.

Essentially, the City Context Report serves to ensure that all actors within the Global Futures Cities Programme are aware of the specific conditions to be considered in the delivery of the proposed interventions, on a case-by-case basis.

Set-up and Scope

The first part of the City Context Report (General Overview) provides an overview of the Global Future Cities Programme and introduces the city from the perspective of the urban challenge which the proposed intervention intends to address.

The second part of the Report (Urban Analysis) more critically and technically analyses a selection of factors which need to be considered or to be in place for the intervention to succeed, addressing its feasibility, potential impact on prosperity barriers from a long-term perspective.

The third part of the Report (International Alignment and Technical Recommendations) presents short- and mid-term expected outcomes as well as long-term potential impacts. It further elaborates the contribution of the intervention to the achievement of the SDGs and the implementation of the New Urban Agenda as well as the programme objectives of the Prosperity Fund.

As the City Context Report is tailored directly to the Programme interventions, the analysis does not aim to comprehensively present all aspects of urban development. It does not elaborate on long term planning and transformation strategies, the effectiveness of policy or urban legislation, nor the entire municipal financial system. As such, it also excludes urban policy recommendations.

However, the Report has the scope to illustrate the general capacity of the city for project delivery, and in this regard, make recommendations to support implementation of the interventions and reaching set goals. The City Context Reports will be part of knowledge management for the Programme to generate local information and data on the cities as well as identify gaps in knowledge, systems or governance.

Methodology

Urban Analysis

The City Context Report provides a general analysis of the spatial, financial and legal conditions in the city that

can either facilitate or hinder the implementation and the long-term sustainability of the proposed interventions in transport, resilience and urban planning.

This framework follows UN-Habitat's three-pronged approach, recognising the three essential components for a successful and sustainable urbanisation: 1. urban planning and design; 2. urban economy and municipal finance; 3. urban legislation, rules and regulations.

Firstly, the spatial analysis describes the existing urban context specific to the intervention. Urban mobility systems, vulnerability of the built environment, spatial form and trends are considered as possible challenges in urban management that the intervention can address.

Secondly, the financial analysis aims to identify the mechanisms in place by which the intervention could be sustainably financed in the long-run. This section outlines the city's municipal capacity, existing regional, national and international financial ecosystem and existing financing mechanisms at the municipal level.

Thirdly, from a legal perspective, the Report critically analyses how the intervention could be facilitated or challenged by the vision of the city and its governance hierarchy. Enablers and obstacles resulting from any relevant legislation, as well as sectoral frameworks (e.g. strategies, policies, planning frameworks and development plans, detailed plans of relevance) are also described.

This approach aims to offer implementing partners, stakeholders and donors a general context of the city and, with it, demonstrate the appropriateness of the intervention from a spatial, financial and legal point of view, while at the same time informing about potential barriers and enablers for its implementation.

Potential Impact to the Program Objectives and the SDGs

The Report also outlines the potential impact of the interventions, based on the specific activities and outputs proposed. Impact can arise from a complex interaction of context-specific factors, rather than as result of a single action, which makes it difficult to empirically quantify longer-run effects that go beyond the identification of program outputs. An empirical, comprehensive impact assessment is therefore not part of the scope of this report.

Nevertheless, the report outlines potential benefits that are only achievable under certain preconditions and activities. Thereby, short-, medium- and long-term outcomes are defined with reference to a project-cycle approach, which considers all the project phases from



Planning and Design through Building, to Operating and Maintaining.

Short-term outcomes are directly achieved through the implementation of the technical assistance support, within the 2-3 years scope of the Global Future Cities Program.

Mid-term outcomes are only realised once the intervention is executed through either capital investment, implementation of pilot projects or the actual enactment of legal documents, plans or masterplans, within a possible timeframe of 3 to 7 years.

The broader long-term impact of the interventions is linked to the sustainability of the interventions in a 7-15 years timeframe and relates to the operation and maintenance phase of the project cycle.

The City Context Reports further connect potential impacts to the Programme's objectives, taking into account also the Cross-cutting issues at the core of UN-Habitat's mandate from the UN General Assembly. Consequently, the Programme's objectives are summarized into five principles:

- Climate Change;
- Gender Equality;
- Human Rights;
- Youth;
- Sustainable and Inclusive Economic Growth.

Cross-cutting issues are addressed with explicit reference to the 2030 Sustainable Development Goals (SDGs) and the New Urban Agenda, in an attempt to ensure that the proposed interventions are in line with the design, implementation, review and success of the 2030 Agenda for Sustainable Development. Consistent with UN-Habitat's mandate, the SDG 11 Sustainable Cities and Communities is linked with the urban dimension of the other 16 goals as an essential part of the localisation of the SDGs. In this way, interventions can support localisation processes, to support local ownership and ensure SDG integration in sub-national strategies and plans.

Technical Recommendations and International Best Practices

The interventions proposed in the various cities of the Global Future Cities Programme were grouped into clusters according to their thematic entry-point, as an elaboration of the thematic pillars of Urban Planning, Transport and Resilience.

These clusters are:

- Public space
- Heritage and urban renewal
- Urban strategies and plans
- Data systems for integrated urban planning
- Multi-modal mobility strategies and plans
- Data systems for multi-modal mobility
- Flood management plans and systems

Combining the international experience in urban policy and project implementation of UN-Habitat and the leading academic research of IGC, each cluster was analysed to offer evidence-based recommendations for a successful Implementation and a maximised impact of the intervention. Specific reference was given to implemented plans and international best practices.

The recommendations inform the Planning and Design phase which coincides with the timeframe of the Global Future Cities Programme, and always aim for long-term sustainability of the interventions.



Fig. 1. Cebu City from Busay Mountain (Source: B Evans, Flickr)

Cebu

GENERAL CONTEXT

Cebu City is the regional, financial and administrative capital of the Central Visayas Region (Fig. 2) with a population of 900,000 and it is the second-biggest growth area in the Philippines after Manila. It had the fastest-growing economy in the Philippines in the 1980s, which led to a growing population and an expanding city. Cebu has expanded along the coast to become the Metropolitan Area of Cebu (Metro Cebu) (Fig. 3) and was home to 2.9 million people in 2017¹. By 2030, Metro Cebu's population is expected to reach 3.8 million people.²

The city has witnessed economic growth, owing to its geographical location in the centre of the Philippine archipelago. This has resulted in the majority of the city's labour force being employed in trade, mainly due to its thriving commercial seaport. The city is also a hub for the business process outsourcing industry, especially related

to IT services. Metro Cebu has greatly contributed to the region's economic growth, which reached 8.5 per cent between 2009 and 2015 and is higher than Metro Manila's economic growth (6.5 per cent) and the national average (5.8 per cent).³

Metro Cebu (Fig. 3) is composed of 13 different Local Government Units (LGUs): three independent cities (Cebu, Mandaue and Lapu Lapu), four component cities (Carcar, Danao, City of Naga, and City of Talisay) and six municipalities (Compostela, Consolacion, Cordova, Liloan, Minglanilla and San Fernando). It occupies a total area of 80,000 hectares, which is 15.7 per cent of Cebu Island.⁴ The cities and municipalities all rely on each other for amenities and services; the airport is on Mactan Island, while the industrial area is located opposite in Mandaue City.

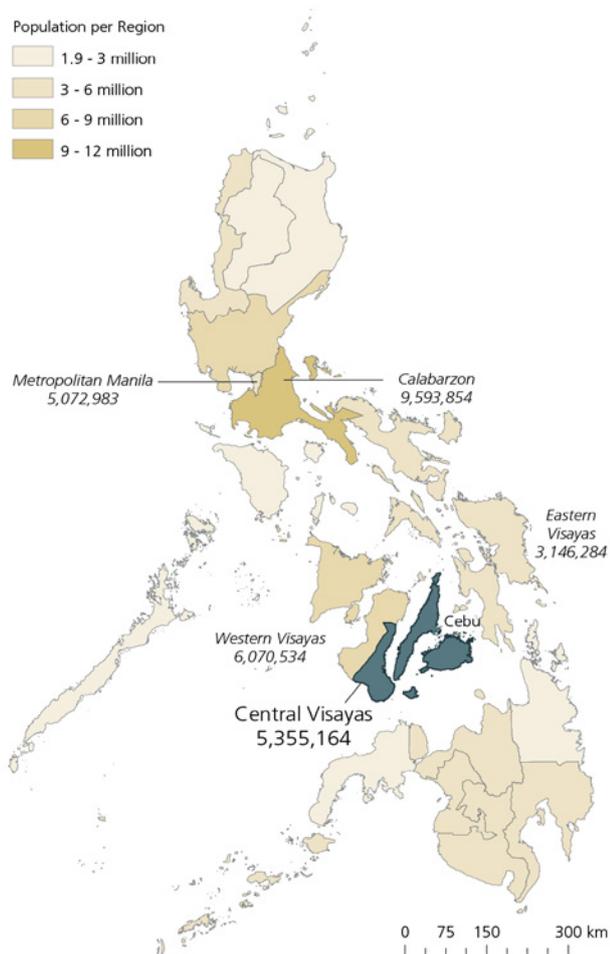


Fig. 2. Location of Cebu within the Philippines archipelago

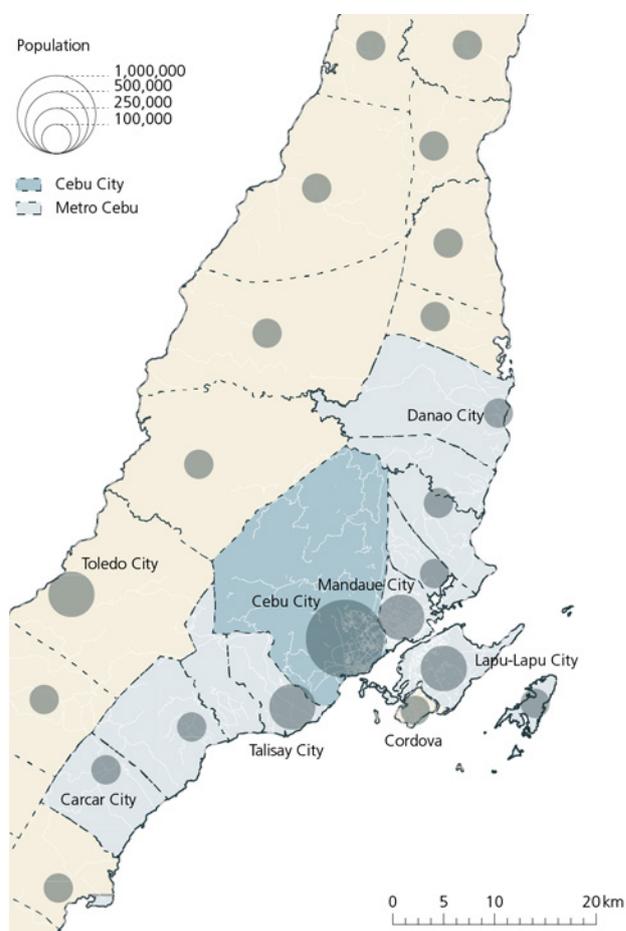


Fig. 3. Cebu City's location with Metro Cebu



Fig. 4. Cebu City (Source: UN-Habitat)

CEBU 2030 CITY STRATEGY AND EVIDENCE-BASED PLANNING

Problem Statement

Cebu City is located within a larger metropolitan area that has experienced a rapid population growth in the last decades, increasing from 1.5 million in 1990 to 2.8 million in 2015. Development stretches along the coast due to a mountainous topography and high vulnerability risk that restricts viable land allocation for urban expansion. This was not matched with a corresponding development of services and businesses in the other municipalities of Metro Cebu, resulting in the creation of a monocentric urban system concentrated in the city of Cebu.

This, combined with a lack of efficient land use, a lack of public transport and insufficient development of the road network, has led to traffic congestion plus high pressure on service delivery and housing provision.

A second strategy to augment urban areas has been coastal reclamation, which could have a harmful influence on coastal environment and marine ecology as well as cause changes on the regional ground water regime which, may in turn, modify the coastal environment, flooding pattern and stability of slopes and foundations.

Unsustainable urbanisation puts the economic performance of the city of Cebu at risk, exposing it to the enhancement of negative externalities that increase the costs of traffic congestion, pollution, social and spatial segregation and environmental risks.

A difficult metropolitan governance and the lack of planning tools in the city do not offer the adequate instruments for long-term sustainable urban planning. This adds to a lack of data availability, as well as lack of data management and analysis that does not allow suitable evidence-based planning in the city.

The city of Cebu wants to reverse this trend and improve its strategies and urban planning mechanisms to promote sustainable urban development for the urban expansion that is forecasted for the upcoming decade, due to continuous migration and population growth.

In this sense, there is a need to enhance spatial- and evidence-based planning for sustainable development and concretely advance the implementation of the Sustainable Development Goals by promoting sustainable modes of transport, resilience to risk disasters, public space and affordable housing.

Description of the Intervention

The interventions for Cebu City aim at tackling the unsustainable trends of urbanisation in Cebu through two main outputs:

1) Cebu City Strategy

Currently the city of Cebu does not have a strategy that guides urban development and provides long-term goals. The Global Future Cities Programme aims to support the development of the strategy with the specific aim of advancing the Sustainable Development Goals (SDGs) and addressing the specific challenges of transport, resilience and housing. Main activities include:

- A solid diagnosis and context assessment based on evidence-based data analysis that establishes a baseline of the main urban challenges of the city;
- Develop principal goals for the strategy that will align with national and regional plans as well as the SDGs;
- Carrying out a participatory stakeholder engagement process that will include community groups, the private sector and main stakeholders from the city and metropolitan governments;
- Development of a city spatial plan that proposes efficient land use and a city form that is connected, has mixed use, is inclusive and compact;
- Establishing a road map towards achieving the SDGs that will include evaluation and monitoring mechanisms;
- Identification of catalytic projects that are aligned with the goals of the city strategy and can contribute to the implementation;
- Develop a funding and financing strategy for the implementation of the city strategy with a special focus on strengthening Cebu City's municipal finance capacity.

2) Cebu Data Hub

There is a lack of data availability in Cebu City that hinders the development of solid and evidence-based strategies and plans. The Global Future Cities Programme aims to support the development of a data centre that enables the use of data across city departments and enhances evidence-based planning in the city as a whole. Main activities include:

- Assessment of the current data and IT framework that establishes the data needs and data gaps, especially regarding the development of the City Strategy
- Establish the purpose and mandate of the data hub and how it should be used for planning needs
- Based on the identification of data gaps, the intervention will engage in the necessary data gathering activities for the development of the city strategy
- Establishment of an appropriate data architecture that includes data sharing protocols, quality assessment custodianship guidelines, a citizen engagement platform and a big data strategy
- Identification of the adequate data science platform needed for the data hub
- Capacity building training will be provided to train the relevant teams in the management and use of the data hub
- Development of an institutionalisation framework strategy that includes where the data hub will be hosted within the city governance structure and how the team will be composed

Main Stakeholder

Office of the City Administrator

Thematic Cluster

Data Systems for Land Management and Urban Planning

Keywords

City Strategy, SDGs, Data Hub, integrated planning, evidence-based planning

URBAN ANALYSIS

Spatial Analysis

URBAN GROWTH AND LAND AVAILABILITY

Cebu witnessed a considerable population growth linked to the migration that followed the economic boom of the 1980s.⁵ Urban expansion quickly filled the available land within the boundaries of Cebu City, and sprawled into the neighbouring Local Government Unit (LGU). This is especially visible spatially when comparing

the city's urban extent in 1993, 2000 and 2014 (Fig. 5).⁶ The observed patterns include densification of the urban core of Cebu City and extension towards Mandaue and Consolacion municipalities. There has been urban growth along the coast from Danao to San Fernando, as well as strong growth witnessed in Cordova and Lapu Lapu City.⁷

The observed urban expansion has also concentrated to a narrow stretch along the coastal areas (Fig.7) in response to the steep sloped land further inland. There is growing pressure on available land suitable for construction; around 76 per cent of the land within

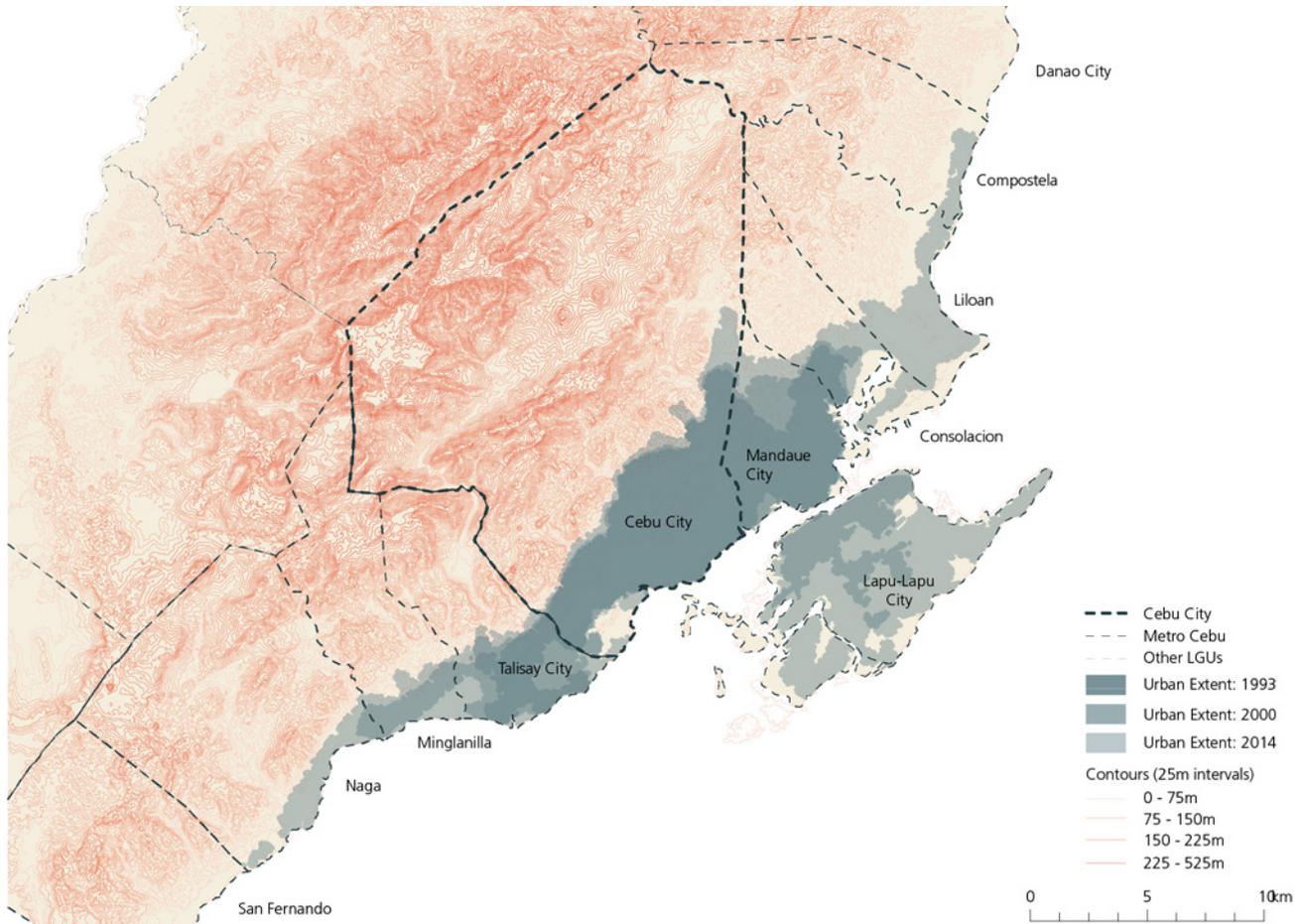


Fig. 5. Cebu's urban expansion has been aligned to the coast due to the high topography restricting its growth inwards



Fig. 6. Cebu City (Source: UN-Habitat)

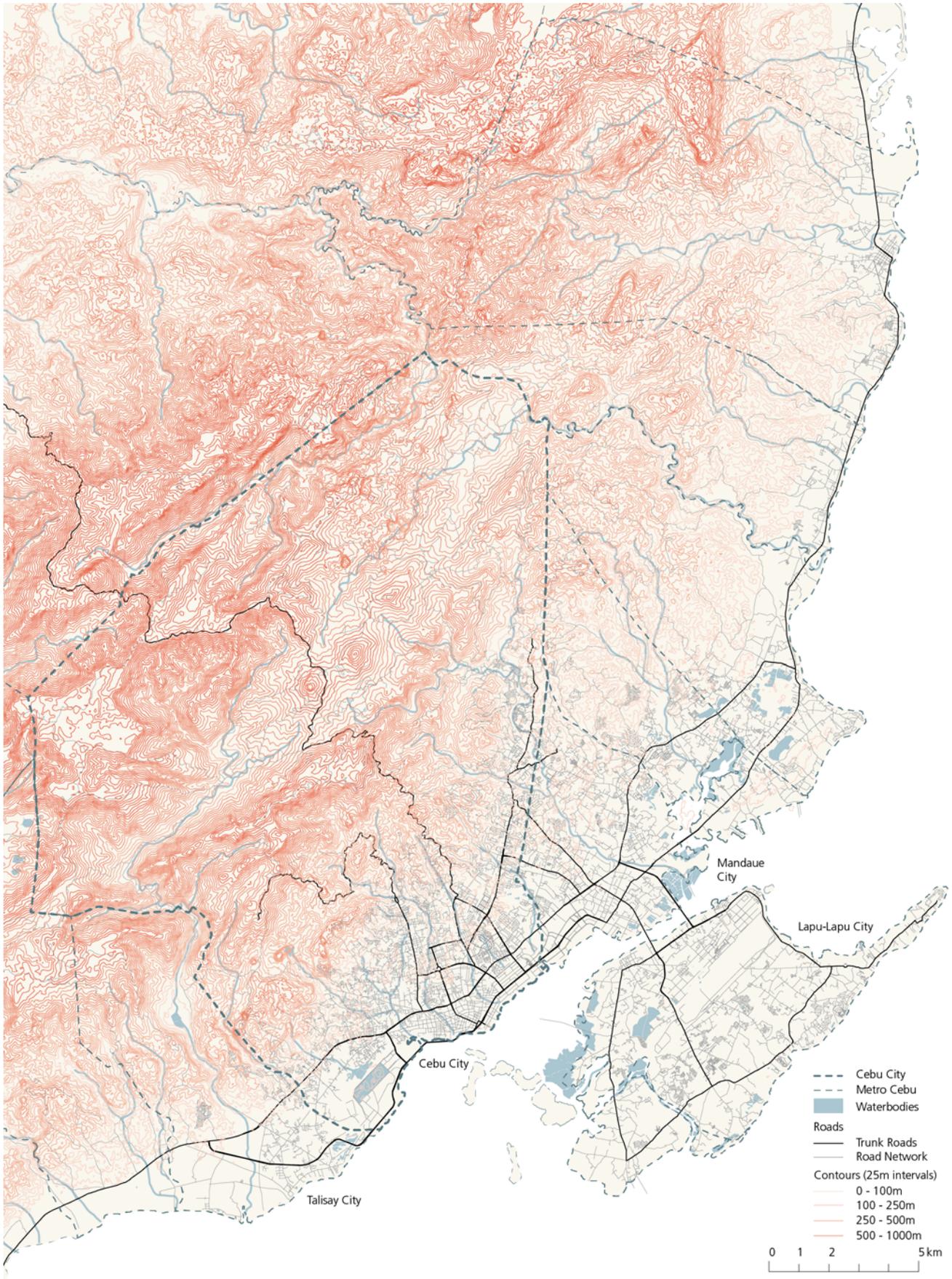


Fig. 7. Metro Cebu's growth following a monocentric model with Cebu City in the centre

Cebu City is considered hazardous and not suitable for urban development. Due to lack of land and rapid urban expansion, it is crucial to consider the future development⁸ of Metro Cebu, which includes Cebu City and nearby cities, as an integrated metropolitan area rather than as isolated cities.

Coastal Reclamation

An approach that Cebu City has taken to increase its land area is coastal reclamation; currently 3 per cent of Metro Cebu's land area is constituted of proposed and already reclaimed land.⁹ Coastal reclamation is "the process of creating new land by covering up coastal areas with landfill."¹⁰ It has been pursued by Cebu City due to the scarcity of and high cost of land; on one side avoiding complicated acquisition, on the other enabling profitable new development in prime positions. The support from local government units has allowed private investors to develop and pursue coastal reclamation, in which the land is then used for industrial and commercial uses

There are many environmental implications associated with coastal reclamation, mostly related to its adverse impact on the coastal environment. The narrow waterways along the coast of Cebu Island encourage the growth of intertidal reef, which are at risk of extinction due to manipulation of the coastline. Coastal reclamation, through its landfill and dredging activities, can cover up and destroy marine ecosystems, especially fisheries and fish nurseries that are heavily reliant on delicate conditions for spawning. This impacts the fishermen and their economy, which involves directly or indirectly around 850,000 people in Metro Cebu.¹¹

Beyond the marine environment, intertidal reef areas protect the shoreline and result in buffer zones that can slow down and reduce the impact of storms. Sites on reclaimed land are more susceptible and prone to flooding, typhoons or any tropical storms as the land no longer has a buffer zone around it.

Susceptibility to Natural Disasters

Currently, Cebu has little land to expand onto in the future. Areas along the coast are susceptible to flooding, while land further inland is steep and susceptible to landslides (Fig. 8).¹² While the areas further upland have been marked as protected areas, this has not prevented encroachment. As the current pressures on land are high, there is no enforcement of policies to ensure that these protected areas are left uninhabited.

Deforestation further upland not only jeopardizes the forest ecosystem but increases the risk of flash floods to Cebu City.

These risks are acknowledged by the national government but are still not properly addressed by city-level risk management and long-term planning. The current land use plan does not reflect any action or plan to contain these hazards. This is especially important for new development, including coastal reclamation projects, that occurs without prior environmental screening.

URBAN FORM

Due to the lack of land availability, Metro Cebu growth follows a linear model, which is further restricting due to its monocentric land use model rather than a polycentric one. All economic opportunities are concentrated in Cebu City.

The development of polycentric compact poles would be more appropriate for a city with the linear spatial layout of Cebu as it allows for proper functioning of the urban system and would equally distribute economic opportunities. The sub-chapters below analyse how the spatial form of Metro Cebu impacts the provision of transportation, affordable housing and basic services.

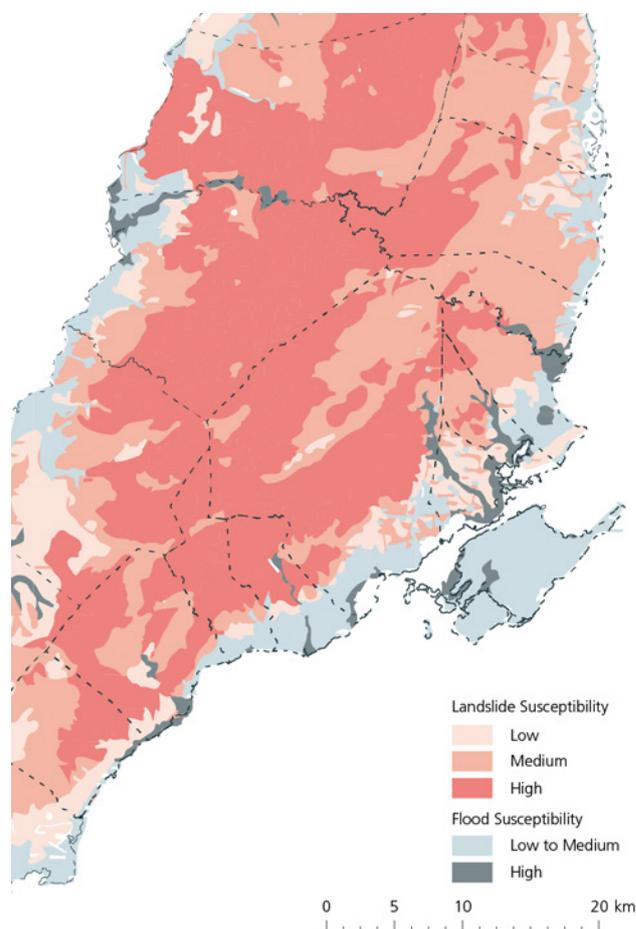


Fig. 8. Natural risks impacting Metro Cebu's growth

The current spatial layout reveals a level of inefficiency in land distribution. While the current layout seems dense, most of the buildings are lower than five stories and most dwellings in residential areas are detached houses with an average of one to two storeys.¹³ Due to the lack of land availability, densification of the existing built-up areas needs to be considered. Vertical growth is required to avoid further unsustainable horizontal growth.

Transportation

Cebu has witnessed high levels of traffic congestion, which is a result of the spatial layout and residents' preferences. On one side, city-wide connectivity is extremely limited with only two arterials roads, Cebu South Road and Cebu South Coastal Road, connecting across the Local Government Units. These attract a significant volume of urban as well as medium- and long-distance traffic. However, due to scarcity of land, there is little opportunity to increase infrastructure provision. At the same time, the monocentric layout of Metro Cebu creates unidirectional traffic towards Cebu City.

On the other end, Cebu lacks of metro-wide public transport strategy which could improve mobility. A recent initiative, funded by the World Bank,¹⁴ aims to introduce a BRT to improve the performance of urban transport while also considering environmental implications. However, the project scope only includes Cebu City and implementation has not started yet. Transport in Cebu overly relies on low capacity private vehicles. Public transport is widely used but is mostly provided by private operators and is road-based. Jeepneys covers 35 per cent of total travels; tricycles and pedicabs represent 11 per cent while formal buses are only used by 4 per cent of travellers.¹⁵ (Fig. 10)

This goes along with an increase in vehicle ownership and use of private vehicles; the rise in population has been at a much faster pace than investments in transport infrastructure. The current road network comprises 14 per cent of the total urban area¹⁶ compared to UN-Habitat's global recommendation of 30 per cent.¹⁷ This factors into the unsustainable mobility currently witnessed in Cebu through the high levels of traffic congestion.

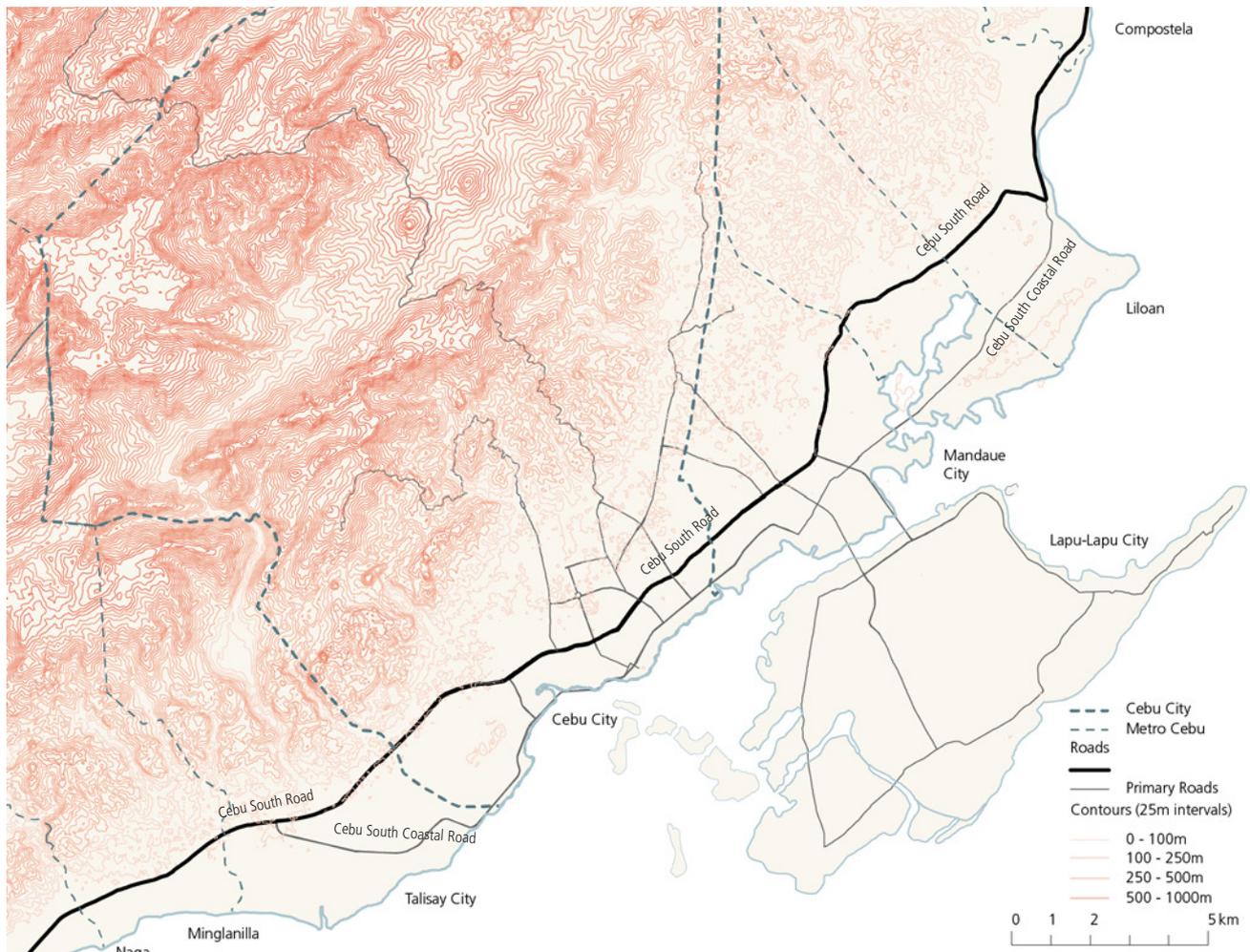


Fig. 9. Main arterial road in Metro Cebu



Fig. 11. Mandaue-Mactan Bridge (Source: Cebu Daily News)

Informal Settlements and Affordable Housing

Based on the latest Comprehensive Land Use Plan, affordable housing is the main responsibility of the government but the private sector has been incentivised to include affordable options in their offers.

A policy has been set that requires developers to dedicate 20 per cent of each housing development to affordable housing but this has not been enforced.¹⁸

The policy does not suggest that the affordable housing portion should be provided within the same building or in the same local government unit, which has led developers in many cases to build affordable housing in areas that are more cost-effective to build such as on the periphery of Metro Cebu. As seen above, these areas lack proper connectivity with the centre, where most services and job opportunities are located. This is one of the main reasons for the proliferation of informal areas in the central LGUs of Metro Cebu.

In 2010, it was estimated that 6.25 per cent of Cebu’s residents were living in informal settlements, while Mandaue and Lapu Lapu had 6.98 and 3.2 per cent respectively.¹⁹ Shelters in these areas are often located in unsuitable land and constructed using poor quality

materials that put them at risk of flooding and fires. However, most of these residents still prefer to live there than in any affordable housing that could be provided due to the proximity of these informal settlements to their areas of work.

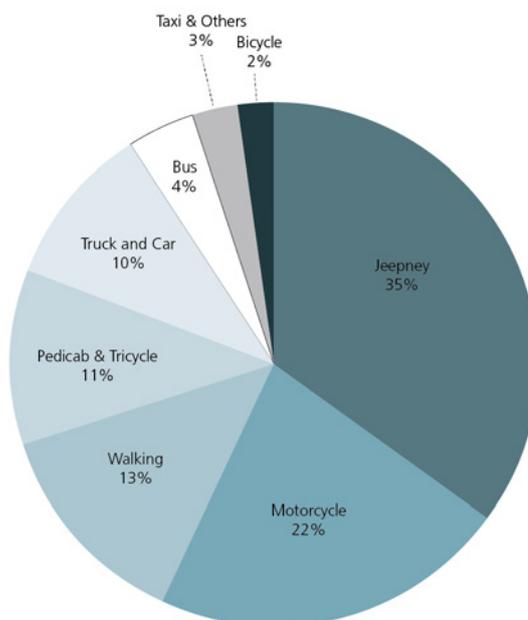


Fig. 10. Current modal share in Metro Cebu

Financial Analysis

FINANCIAL CAPACITY

In 2017, the budget outlay for the City of Cebu was 7,016,984,435 PHP (Philippines Pesos) or approximately USD 370 million.²⁰ At a per capita level, this translates into a budget of approximately USD 400 per person. This signifies a reasonably high financial capacity for Cebu as compared to other municipalities in the Philippines.

As an independent city, Cebu has more revenue generation capacity than many other municipalities in the Metro Cebu. For example, while other municipalities within Metro Cebu only receive a share of the property tax collected by the provincial government, Cebu City can raise and retain the entirety of its own property tax. Hence, the city has generated comparably high-own source revenues, with own-source revenues accounting for around 59 per cent²¹ of the total revenues on average; national transfers comprise the remainder. The Cebu city Property Tax and Tax on Businesses represent the main sources of own-source revenues generated.

Nevertheless, there is a high discrepancy in terms of revenue capacity between the different Local Government Units that constitute the Cebu Metropolitan area. While Liloan Municipality has the highest revenues within Metropolitan Cebu, other municipalities raise much less, for instance, the Cordova Municipality raises just USD 88 per capita. This discrepancy is also reflected on the own source revenue generation capacity as some municipalities depend on national transfers for up to 80 per cent of their budgets. In terms of implementing coordinated inter-municipalities projects of key infrastructure, this can represent a significant barrier with regards to the ability to develop common financing strategies that facilitate implementation.



Fig. 12. Street Vendor (Source:Flickr)

In addition to the local capacity, the national government does provide financial support to projects through its Public Investment Programme (PIP). There is a focus, both through the PIP and through other programmes such as Build, Build, Build, to accelerate infrastructure investment in the Philippines.²²

CAPITAL INVESTMENT CAPACITY

Despite Cebu City's high revenue generation capacity and considerable budget per capita that could support the sustainable implementation of the intervention in the long-run, Local Government Units (LGUs) in the Philippines generally do not have a strong capacity for capital investment.

LGUs in the Philippines represent only 14 per cent of public investments compared to around 40 per cent in OECD countries.²³ As an example, in Metro Cebu capital expenditures accounted only for 9.8 per cent of the total revenue in the metropolitan area.

This is also reflected in the low budget allocation of Cebu City for departments with a mandate for infrastructure investment and development of projects related to planning, resilience and transport.²⁴ Concretely, Cebu City allocates 2.2 per cent of its budget to its transportation office, 1.1 per cent to the city environment and natural resources and 0.2 per cent to its planning office.

ENABLING CONDITIONS FOR THE IMPLEMENTATION OF PPPS

One possibility that Cebu City can make use of to finance and maintain capital investment projects is by joining a Public Private Partnership. Under the 1991 Local Government Code, Cebu is legally able to enter into PPPs. Additionally, since 2010 the national government has placed a new emphasis on promoting PPPs, which has led to important organisational and legal reforms. Most notably among them is the creation of the Executive Order No. 8 series of 2010 which inaugurated the national PPP Centre,²⁵ chaired by the National Economic and Development Authority (NEDA). This Centre oversees the facilitation, monitoring and coordination of all PPP projects in the Philippines.

As part of this initiative, there is also a capacity-building programme for enhancing the implementation of PPPs by Local Government Units. Under the Project Development and Implementation Facility (PDMIF) local governments can obtain financial and technical support to implement PPP projects.

Moreover, there is a precedent in Cebu City for the implementation of PPP projects. For instance, the Cebu City Solid Waste Management Project, which comprises a waste-to energy facility in Inawayan Landfill, has been done through a PPP. However, there are a few barriers that remain for the efficient implementation of PPPs in Cebu City, mostly relating to lack of cost recovery mechanisms, technical capacity and the difficulty of entering a binding contract with the private sector and multiple Local Government Units.

BARRIERS TO INTER-MUNICIPALITY BORROWING

Cebu City, under the Section 297 of the Local Government Code, has the legal capacity to borrow domestic and international loans. There is also some precedent in the City such as the loan provided by the Japan International Cooperation Agency at an interest rate of 11 per cent.²⁶

However, it is important to mention that two or more LGUs are not authorised to enter loans together,²⁷ which can severely hamper the implementation of large-scale projects that naturally require inter-governmental cooperation such as projects regarding water or transport.

REVENUE GENERATION AND COST RECOVERY

Financing mechanisms for revenue generation and cost-recovery of capital investments such as land-based finance and the ability to raise fees and taxes are in place in the City of Cebu. However, there are some barriers for implementation that should be considered. For example, although the City of Cebu collects Property Tax, it currently lacks the capacity to calculate the market value of properties and this is evidenced by the fact it is still using a tax base from 2002 for valuation.²⁸ Additionally, while fees related to land-use and urban-development licences are contemplated under the 1996 Zoning Ordinance,²⁹ these fees are fixed by law in a way which stalls new uses of the fee system. This is reflected within the low revenue-generation capacity of fees that only reaches 6 per cent in Metro Cebu.³⁰



Fig. 13. Cebu City (Source: UN-Habitat)

Legal Analysis

METROPOLITAN GOVERNANCE

Cebu City sits within a broader urban context of the metropolitan area of Cebu that is constituted of 13 different Local Government Units (Fig. 10). In 2011, the Metro Cebu Development and Coordinating Board (MCDCB) was established, a public-private initiative with the objective to unify and coordinate long-term planning across the various Local Government Units.

However, MCDCB lacks legal mandate and enforcement capacity and instead relies on voluntary cooperation, which makes it challenging for implementing overarching metropolitan strategies and plans.³¹

Consequently, there is an absence of inter-municipality coordination in Metro Cebu for the delivery of key services and infrastructure as well as regarding spatial and land use planning.

Additionally, there is a discrepancy between the legal status among the different 13 Local Government Units in Cebu City. The Metropolitan area combines three independent cities (Cebu, Mandaue and Lapu Lapu), four component cities (Carcar, Danao, Naga and Talisay) and six municipalities (Compostela, Consolacion, Cordova, Liloan, Minglanilla and San Fernando).³²

While independent cities such as Cebu City fall directly under the national government, component cities and municipalities share responsibilities with the Province of Visayas. This is reflected in different competencies in terms of service delivery and infrastructure between the different types of municipalities.³³ For example, independent cities have clear competencies regarding transport, roads, flood control and the development of housing that municipalities and component cities do not have.

Considering that the current urban footprint of Cebu spans municipalities that have varying types of legal status, this adds a layer of complexity to inter-municipality coordination and planning for infrastructure and public services.

DECENTRALISATION IN CEBU CITY

According to the 1992 Philippine Local Government Code, Cebu City has a high level of decentralisation in terms of competencies regarding land use and strategic planning capacity and also regarding housing development, flood control and transport. Concretely, Cebu City combines competencies of solid waste, drainage and sewage, flood control, housing, tourism, forestry, agriculture extension, social welfare, water supply and irrigation, roads, bridges and others.

However, the City of Cebu only has partial control with regards to transportation and environmental management. With regards to transport management, the National Department of Transportations and Communications is the main body responsible for most transportation investments including the planned Cebu Bus Rapid Transport System. Additionally, the Land Transportation Franchising and Regulatory Board acts as the main regulatory authority for road public transport services. On the environmental management side, the Office of the City Environment and Natural Resources³⁴ holds a strong mandate for promoting environmental sustainability and resilience.

LAND USE PLAN AND ZONING ORDINANCE

Cebu's City Planning and Development Office is in charge of developing the Comprehensive Land Use Plan (CLUP) that should establish the "developmental pace, directions and strategies for the optimum use of land resources in the city"³⁵. The land use plan is then being enforced through the zoning ordinance.

However, the current land use plan in Cebu is outdated and requires further revisions to bridge the gap between what is planned and what is built. While the CLUP, according to Executive Order 72, establishes that land use plans need to be updated every five years,³⁶ the last updated land use plan in Cebu City is from 2006.

Moreover, the zoning ordinance has not been renewed since 1996,³⁷ showing discrepancies both with the CLUP as well as the current state of development and urban growth of Cebu City.

This means current land use plans and zoning regulations do not offer the adequate regulatory mechanisms to accommodate the forecasted urban growth in Cebu in an efficient way, thus risking unsustainable urban expansion.

On the other hand, planning regulatory frameworks show that there is too much focus on mono-functional zoning at the expense of mixed use. Instruments for enhancing an efficient level of density are not adequately ensured. For example, there are only two types of residential areas, which allow three- and five-floor buildings respectively.³⁸ Moreover, the zoning ordinance shows an overprovision for parking spaces and, while there are zoning mechanisms for green spaces, there is not a city-wide or neighbourhood minimum standard provision.

There are some non-statutory strategic plans which might shape investment in the city. Chief among them is the JICA-Cebu 2050 strategy which provides seven road maps for the city to follow. This includes promoting the Urban Transport and Highway Network.

It is also important to consider that, currently, in Metro Cebu, each Local Government Unit (LGU) develops its own Comprehensive Land Use Plan; Cebu City's one takes it spatially in isolation, resulting in a clear disparity in the development between it and neighbouring LGUs.

For example, the city of Cebu's Land Use Plan has been developed in complete geographical isolation from other LGUs.

EVIDENCE-BASED PLANNING

There is limited data collection in the city and a consequent lack of evidence-based planning. Where data is collected it is done in an intermittent manner and by diverse agencies including the private sector, universities, NGOs and so on. These is often not consistent and not compiled under one system or institution.

There are national agencies that consistently collect data on Cebu such as the National Philippine Statistics Authority, which collects data on housing, population and gross domestic product.

The lack of data and data-sharing strategies has also hindered the planning process in Metro Cebu. The city currently does not collect or store data which can be used later for planning purposes. As the previous plans that were developed do not correspond to the built conditions of Cebu City, monitoring impact without any baseline data is difficult to achieve. This hinders the vision of achieving evidence-based planning for the city of Cebu.



Fig. 14. Participative Charrette (Source: UN-Habitat)

INTERNATIONAL ALIGNMENT AND TECHNICAL RECOMMENDATIONS

Potential Impact

The potential impact analysis outlines the main benefits that can be potentially attained through the Global Future Cities Programme in each city under three considerations: short-, medium- and long term. Nevertheless, as impact can arise from a complex interaction of context-specific factors, rather than as result of a single action, an empiric impact assessment is out of the scope of this report.

The short-term refers to the outcomes that can be achieved through the implementation of the technical assistance support within the 2-3 year scope of the Global Future Cities Programme. Mid-term outcomes are only achievable once the intervention is executed at the city level either through capital investments or the legal validation of key polices and plans in a 3-5 year timeframe. Long-term impact of the interventions is linked to the sustainability of the interventions in a 7-15 year timeframe and is related to the project cycle phase of operation and maintained.

SHORT-TERM OUTCOME

Within two to three years the Global Future Cities Programme can have several direct outcomes. First, the training supporting the implementation of the Data Hub can contribute to capacity building and increased tools for data management and analysis, monitoring and evaluation and the use of evidence for the development of strategies and plans. The training will specifically train a team within the city authority focusing on how to make use of the Data Hub in the future.

The development of a city strategy that is based on data analysis and a solid diagnosis will strengthen the availability of evidence-based policies and plans. Given that currently there is no strategic plan for Cebu, this can fill a significant gap in the city contributing to better and more informed strategies. Moreover, given that the intervention will also include data-gathering activities

filling the data gaps needed for the development of the strategy, the intervention will also support increased data availability in the city. Currently, there is a lack of metropolitan integration of policies and plans as well as reduced coordination across municipalities. The development of the city strategy will be carried out in consultation with neighbouring municipalities and at metropolitan level. This could lead to a city strategy that is integrated within neighbouring land-use plans and is embedded within a broader metropolitan agenda.

Through the development of the City Strategy, there will be increased awareness of sustainable urban development and the Sustainable Development Goals. Achieving the Goals in Cebu City and establishing evaluation and monitoring tools in the long run is the backbone of the city strategy. This will contribute to the integration of the Goals into the city's future aims. Additionally, the training for the data hub will include the use of evaluation mechanisms specifically to monitor the achievement of the Goals.

Moreover, participation in plans and strategies will be enhanced by including participatory processes as part of the main activities in defining the City Strategy. Consultation with the community as well as NGOs, the private sector, neighbouring municipalities and metropolitan institutions will be part of the main steps that the city strategy development process will follow in order to design an adequate strategy that is both realistic and legitimised.

MEDIUM-TERM OUTCOME

In the mid-term, if the city strategy and Data Hub is implemented, this will lead to more sustainable urbanization including land-use planning, transport planning and planning for climate change adaptation and mitigation. The achievement of these outcomes will depend on the legalisation, legitimisation and enforcement of the city strategy and the Data Hub.



Fig. 15. Alcantara, Cebu, (Source: Wikipedia)

The strategy will promote sustainable density and mixed use as well as an efficient land use allocation in order to accommodate population growth in a sustainable way. As part of this sustainable urban development view, affordable housing will be promoted across the city to contribute to inclusiveness and the reduction of informal settlements in the city. Capital investment projects implemented in Cebu will align to this city view and will support its implementation and realization.

Increased availability of data and analysis skills will contribute to enhanced tools for better transport and resilience planning. The existence of information regarding density, land use, congestion and other key data will enable more efficient transport and resilience planning. Moreover, the existence of a strategy will allow the different planning sectors to be aligned within the same spatial development goals.

The hub will allow for increased data availability and monitoring tools that can facilitate the development of better plans, strategies and projects. New infrastructure projects will benefit from having updated data available and therefore additional costs in data gathering and analysis will be reduced. Besides, the development of better and more informed plans and policies by the city will be facilitated.

LONG-TERM POTENTIAL IMPACT

In the long-term, if the strategy and hub are sustained in the future, this could lead to several long-term impact effects. This will depend on the enforcement and institutionalisation of the strategy and the hub in the long-run as well as having adequate resources to invest in projects for the strategy and maintain and operate the Data Centre.

First, the sustained implementation of a city vision that promotes an efficient land use and urban form can contribute to a more efficient population and urban growth. This can address the negative externalities of urbanisation such as congestion, lack of adequate infrastructure and public space, inequality and the proliferation of informal settlements. While economic growth is currently happening in Cebu City, negative externalities of urbanisation put this performance under threat. The intervention can contribute to reversing this trend and thereby enhance sustainable and inclusive economic growth in the city.

The interventions can support the creation of a city that is more connected, less congested and less prone to environmental risks. The existence of strategic planning as well as the availability of adequate and updated data can significantly contribute to this purpose. If the city strategy is constantly updated and coordinated with the neighbouring municipalities and at metropolitan level, this can also enhance the metropolitan planning which is vital to addressing the issues of climate change and transportation. Moreover, the cooperation across departments that will be involved could foster integrated planning between city departments.

Given that the strategy will establish a roadmap to advance the Goals in the city, the intervention can have an overall impact in the implementation and significant enhancement of them in Cebu. This can have an impact on the overall sustainability of the city not only in terms of advancing the urban goals but also for broader sustainability goals such as gender, human rights and climate change.



Fig. 16. Cebu City, wikipedia

Contribution to Sustainable Urban Development

2030 SUSTAINABLE DEVELOPMENT GOALS

The Global Future Cities Programme aims to contribute the implementation of the 2030 Agenda for Sustainable Development whilst mobilising efforts to end all forms of poverty, fight inequalities and tackle climate change while ensuring that no one is left behind.

The interventions offer the opportunity to advance the Goals and the New Urban Agenda in Cebu City and in Philippines, with a concrete potential impact to:

SUSTAINABLE CITIES AND COMMUNITIES



Promote the development of sustainable cities and communities (SDG 11) by providing a strategic plan that establishes a future city view for a connected, inclusive and mixed-use city that enables city and population growth in a sustainable way.

CAPACITY BUILDING



Increasing the capacity of Cebu City in data management and analysis as well as enhancing the development of evidence-based plans and strategies (SDG 17).

INCREASED ACCOUNTABILITY



Fostering participatory processes in municipal strategies and plans and increased accountability (SDG 16) by enhancing evaluation tools that monitor the city's performance and the achievement of the Goals.

SUSTAINABLE ECONOMIC GROWTH



Enhance a sustainable economic growth (SDG 9) by reversing the negative externalities of urbanisation such as congestion, inequalities and urban sprawl.

RESILIENCE TOWARDS CLIMATE CHANGE



Increasing resilience towards climate change (SDG 13), flooding and other environmental risks through more resilient strategic planning and increased availability and use of data

INCLUSIVITY AND REDUCED INEQUALITY



Address urban inequalities (SDG10) by promoting a city development model that is inclusive and promotes affordable housing

NEW URBAN AGENDA ALIGNMENT

The United Nations Conference on Housing and Sustainable Urban Development (Habitat III) held in Quito, Ecuador, in 2016 adopted the New Urban Agenda, a new framework that that lays out how cities should be planned and managed to best promote sustainable urbanisation.

The New Urban Agenda encourages UN-Habitat and others "to generate evidence-based and practical guidance for the implementation and the urban

dimension of the SDGs in close collaboration with Member States, local authorities, major groups and other relevant stakeholders, as well as through the mobilization of experts.”

The GFC Programme is directly related to the UN-Habitat’s draft Action Framework for implementation of the New Urban Agenda (AFINUA). This framework is organized under has five categories: (1) national urban policies; (2) urban legislation, rules and regulations; (3) urban planning and design; (4) urban economy and municipal finance and (5) local implementation.

Regarding AFINUA’s goals in Urban Planning and Design, the intervention can significantly contribute to enhancing a city’s urban layout and spatial form that contributes to a more connected (Goal 3.3.), mixed-use (Goal 3.4. and 3.8.), inclusive (Goal 3.7.) and walkable (Goal 3.5.) city. Moreover, the intervention will significantly support Goal 3.1. that aims at setting up “a planning and design process that is evidence-based integrated and participatory”.

On the legal side, if the intervention is enforced then the city strategy can be formalized through a “legal instrument that is enforceable against all within the jurisdiction and accountable to citizens” (Goal 2.2.). This is a critical aspect of the implementation that could define the achievement of mid and long-term impact in the city. Moreover, the intervention includes the establishment of monitoring and evaluation mechanisms for the plan that should contribute to accountability and making the plan enforceable (Goal 2.9).

ALIGNMENT WITH CROSS-CUTTING ISSUES AND THE PROSPERITY FUND

In regard to the specific objectives of the Global Future Cities Programme, the intervention can have an impact in both removing barriers to prosperity and addressing the cross-cutting issues.

The four cross-cutting issues of UN-Habitat, as identified in the Strategic Plan 2014-2019, are mainstreamed to ensure that all of the agency’s work targets those with the most need and promotes socially- and environmentally-sustainable cities.³⁹ In this regard, the interventions detailed for Cebu City are shaped under the mainstreaming of environmental safeguards, youth, gender equality and human rights.

The interventions in Cebu City can have a significant impact in removing barriers for prosperity and promote sustainable and inclusive economic growth. This is helped by promoting a city vision that addresses the negative externalities of urbanisation and allows for efficient and

sustainable urban growth in the future. Considering the current urban growth and expected rise in population of Cebu City this can have an impact in reversing the current unbalanced urban growth trend. Moreover, a city model that promotes affordable housing can address issues of human rights by enhancing access to services and housing.

The current vulnerability to climate change and environmental risks such as flooding can be addressed through the intervention by enhancing strategic planning and efficient land use planning that will provide the best strategies to accommodate growth in a resilient way avoiding development in risk areas and coastal reclamation. The use of data and evidence-based approaches can furthermore enhance this by fostering a planning culture in which resilience related data is taken into consideration within projects, plans and strategies.

Finally, the focus of the intervention in achieving the Goals can make sure that other broader issues related to sustainable development such as gender equality and youth are enhanced. The new hub will ensure that new protocols and data-gathering processes include disaggregated data in order to monitor the improvements in equality of access to opportunities for woman and youth.

Potential Benefit	Short term	Medium Term	Long term	SDG Alignment		New Urban Agenda	Programme Objectives and Cross-cutting issues
				GOALS	TARGETS	AFINUA KEY ITEM	1. Climate change; 2. Gender equality; 3. Human Rights; 4. Youth; 5. Sustainable and inclusive economic growth
Increased capacity in data management and analysis				17	17.9., 17.18, 17.19,	3.1.	Sustainable and Inclusive Economic Growth; Human Rights
Increased capacity and tools for monitoring and evaluation				17	17.18., 17.19., 17.9.	3.1.	Sustainable and Inclusive Economic Growth; Human Rights; Youth; Gender Equality; Climate Change
Evidence based City Strategy for Cebu City				17, 16, 10	17.9., 17.17., 16.7., 16.10.2, 10.3.	3.1.	Sustainable and Inclusive Economic Growth; Human Rights; Climate Change
Increased data availability				17	17.18, 17.19	3.1.	Sustainable and Inclusive Economic Growth; Human Rights; Youth; Gender Equality; Climate Change
Integration of Cebu strategy with neighbouring land use plans and strategies at metropolitan level				11, 17	11.A, 11.B, 17.14.	3.1.	Sustainable and Inclusive Economic Growth
Increased awareness of the SDGs, sustainable urban development and urban planning principles				11, 17	11.9., 17.9., 17.14.	3.1.	Sustainable and Inclusive Economic Growth; Human Rights; Youth; Gender Equality; Climate Change
Increased participation in developing municipal plans				17, 16, 10	17.17., 16.7., 16.10.2, 10.3.	3.1.	Human Rights
Enhanced efficiency of land use				11	11.B, 11.3.	2.2., 2.9., 3.3., 3.4., 3.5., 3.7.3.8.	Sustainable and Inclusive Economic Growth; Human Rights; Climate Change
Better transport and resilience planning				11, 17, 13	11.2., 11.B., 17.9., 13.1., 13.2., 13.5.	2.2., 2.9., 3.3., 3.5.	Sustainable and Inclusive Economic Growth
Increased provision of affordable housing and inclusive city				11	11.1.	2.2., 2.9., 3.7.	Sustainable and Inclusive Economic Growth; Human Rights
Increased use of data and monitoring tools in plans and strategies				17	17.18., 17.19.	3.1.	Sustainable and Inclusive Economic Growth; Human Rights; Youth; Gender Equality; Climate Change
Sustainable population and urban growth				11, 17, 9, 10	11.3., 11.1., 11.2., 11.B., 11.A.	2.2., 2.9., 3.1., 3.3., 3.4., 3.5., 3.7., 3.8.	Sustainable and Inclusive Economic Growth; Human Rights; Youth; Gender Equality; Climate Change
More inclusive and sustainable urban economic growth				11, 10, 9	11.1., 11.1, 11.2., 11.3., 10.2., 10.1., 9.1.	2.2., 2.9., 3.1., 3.3., 3.4., 3.5., 3.7., 3.8.	Sustainable and Inclusive Economic Growth; Human Rights; Youth; Gender Equality; Climate Change
Enhanced strategic planning and metropolitan coordination in the city				11, 17	17.14., 11.A.	2.2., 2.9., 3.1.	Sustainable and Inclusive Economic Growth; Human Rights; Youth; Gender Equality; Climate Change
Increased integrated planning between departments especially regarding resilience, transport and urban planning				11, 13	11.2., 11.B., 13.1., 13.2., 13.5.	3.1.	Sustainable and Inclusive Economic Growth; Human Rights; Youth; Gender Equality; Climate Change

Fig. 17. Potential Impact and Programme Objectives Alignment

Success Factors

The following statements are considered as evidenced success factors, based on international best practices, for the interventions in Cebu City. These success factors aim at defining the implementation phase in order to maximise the potential impact of the intervention in line with the Goals, the prosperity fund and the cross-cutting issues. Success factors are divided into design and planning, legal and financial and aim to address potential barriers for the long-term sustainability of the interventions.

SPATIAL CONSIDERATIONS

Proactive Planning to Plan for Population Growth

Metro Cebu is planned to grow from 2.9 million people in 2017 to 3.8 million by 2030.⁴⁰ However, land availability is scarce due to the topographic constraints of the city but also the lack of efficient land use planning and coordination at metropolitan level. The city strategy can enhance proactive planning contributing to anticipating and efficiently allocating resources for this rapid population growth. This is particularly important as it can save a lot of time and money spent in retrofitting urban infrastructure and it can avoid the proliferation of informal settlements that could make land allocation difficult in the future for the provision of public infrastructure.

A City Strategy That Promotes the Principles of Sustainable Urbanisation

Currently the Cebu City shows an urban layout that does not sufficiently promote affordable housing, mixed use developments, walkability and public space. Sustainable urbanisation could be enhanced through a city model that follows international principles of sustainable urbanisation and promotes compactness, connectivity and inclusiveness. The Plan can thereby follow the Five Principles of Neighbourhood Planning from UN-

Habitat that promotes adequate space for streets, high density, mixed use developments with an enhancement of land allocated for commercial space, social mix and limited land-use specialisation^{27,28}. At the same time, the strategy should include adequate provision of affordable housing that is secured throughout the city and facilitates access to basic services and economic opportunities.

Ensuring Efficient Land use as Well as the Promotion of a Polycentric City Model

The urban form of Cebu city is characterised by a concentration of services, infrastructure and job densities in the centre and a low-density urban expansion along the coast. The strategy for Cebu City should address urban sprawl by enhancing adequate density and efficient land use with the overall aim of promoting compactness. Higher population densities should be linked to job, services and infrastructure provision. This can foster agglomeration economies for neighbouring businesses and firms and can also have benefits in cost efficiency. Additionally, the strategy should be linked to the general goal of Metro Cebu to promote a polycentric city model by creating economic nodes in strategic points, thereby addressing congestion and increasing access to services and opportunities.

Participation and Alignment at Metropolitan Level

The strategy should be based on a planning and design process that is participatory and includes integration across different city departments, municipalities within the Metro region and a broad scope of different actors which include civil society, academia and the private sector. Cebu City shows a lack of coordination across different municipalities within the metropolitan area, which can be a considerable obstacle in addressing urban challenges that are intrinsically linked at metropolitan level such as transport, climate change and land-use coordination. Besides, to be integrated and comprehensive the strategy cannot be driven by a single department but should engage all the main departments of the city. Finally, community groups, the private sector and academia need to be part of the process as their input can facilitate the development of a better strategy that is also supported and legitimised.

Use of Evidence-based Approaches and Monitoring Tools

The city strategy should be based on an evidence-based approach and a solid diagnosis of the main urban challenges of the city. This should include an analysis of land use, densities and urban form as well as service provision and transport accessibility. Moreover,



Fig. 18. Aerial View (Source: UN-Habitat)

the strategy should be coupled with specific goals and monitoring tools that can allow an evaluation of the implementation in a future timeframe. In order to ensure this, evaluation data on the level of implementation of the strategy as well as on the outcomes of the implementation should be regularly updated. Monitoring of the implementation can include building permit surveys, land use surveys, satellite data and interviews.

The outcomes of the strategy can be assessed through environmental impact assessments, data on affected individuals and changes in land and property prices as well as other processes. Finally, given that the Goals are the main backbone of the city strategy, goals and monitoring mechanisms should aim at assessing the achievement of them in the city.

Adapt the Data Systems to Their use to the Planning Context

For the data hub to be successful and used in the long-run, it is important to define the objectives of the hub and how it will contribute to addressing planning problems. Data collection should thereby adapt to these objectives and planning needs. Datasets that are relevant for planning may include land use, disaggregated data on population characteristics, cadastral, and physical geography.

Furthermore, it is relevant to consider how data can be translated into useful planning information. Analysis techniques may include data layering, visualization, exploring relationships between datasets, computational models and big data analysis. Information from data analysis may be used to understand the local context, make predictions or projections of future growth and develop spatial strategies and visions.

FINANCIAL CONSIDERATIONS

Couple the City Strategy with a Realistic Financial Plan

In order for the city strategy to be implemented in the long-run and have a tangible impact, projects and capital investments need to be aligned with the strategy and support its realisation. Therefore, the strategy needs to reflect public investments that are realistic and adapted to existing city government budgets. While Cebu City has significant capacity in terms of budget per capita, as explained above capital expenditures still depend significantly from the central government. Furthermore, the city and coupled investment plans have to adapt to the existent income levels. Plans and projects that assume strategies that are incompatible with income levels are likely to not succeed and not be enforced.

Enhance Land-based Finance for Revenue Generation

The implementation of the projects that support the city strategy will need to be coupled with increased revenue streams. In this regard, there is an opportunity to enhance the use of land-based finance tools for revenue generation that can help with paying upfront investments as well as the long-term operation of the projects.

Some of the investments in the city strategy will inevitably increase land value. Examples include infrastructure or urban regeneration projects. Additionally, some investments may result in the city having to increase services in certain areas such as laying utilities. Depending on the context, different mechanisms of land-based finance such as betterment levies, impact or extraction fees can be considered. As explained before, although there are the systems in place for the implementation of land-based finance mechanisms, there are a few challenges for its implementation regarding capacity and the updating of the valuation of land.

Financial Sustainability of the Data Hub

After the implementation of the Programme, the hub will need to be set up in terms of infrastructure and personnel. Additionally, to be sustainable the data hub will need to be operated and maintained which requires a constant revenue stream. It is difficult to raise taxes or fees to fund this type of investment and this is more likely to derive from national transfers or loans. However, there is also the opportunity for securing the longevity of the investment and bring in a private sector which may have an interest in receiving data over a longer period of time. The private sector may also have expertise in understanding how to analyse and therefore utilise and ultimately monetise the data. However, a data-based funding stream will have to be set up carefully to ensure the protection of data.

LEGAL CONSIDERATIONS

Updated and Aligned Land-use Plan

To ensure the long-term sustainability of the strategy and its implementation, Cebu City needs to update and align the current land-use plans. Given the importance of land-use planning for a variety of outcomes that affect efficiency, equity and sustainability, Cebu needs to ensure that the land-use plan facilitates the implementation of the strategy's goals.

The current plan in Cebu is out of date and does not provide the necessary tools to plan for the current and future city. Outdated land-use plans are common across many middle-income cities in the world. To address this issue it is important that land-use plans are realistic and implementable and that they are updated every five years. Moreover, compliance can be enhanced by increasing the costs of delinquency and also supporting the processes with capacity training and reducing the complexity of land regulations

Adequate Zoning Regulations That Promote Sustainable Urbanization

Similarly, zoning ordinances and regulations need to support the implementation of the strategy to ensure a compact and mixed-use city model. The zoning ordinance needs to include zoning strategies and regulations to achieve the optimal mix of land use and to enhance mixed-use developments. Mixed-use, single-use, inclusionary and conservations are some of the zoning mechanisms that can be used to plan for sustainable neighbourhoods. Through these mechanisms single land use should be minimised and mixed-used developments should be enhanced, with a special focus in ensuring affordable housing. Land use specialisation should represent less than 10 per cent of any neighbourhood and commercial land use should be 40 per cent of floor space.

Formalise Practices for Integrating Data Analysis Into Decision Making

To ensure that the data hub is being used for planning purposes and is therefore useful and sustainable in the long-term, it is important to introduce legally-formalised practices that incentivise the use of data in decision-making processes. In this regard, it is necessary to develop protocols and policies for data applications in both the planning and monitoring phases. Additionally, through the establishment of adequate regulatory environment in terms of data sharing, standardisation of data, privacy laws and data quality assessments can ensure the implementation of a solid data architecture that supports the functioning of the data hub.

Build Capacity for Data Systems and Management

With the aim of ensuring the long-term impact of the data hub in the city, it is important to develop human capacities and quantitative skills within the planning profession. This ensures that data is used by public servants in their decision-making process and planning

activities. While specific capacity needs will vary, a baseline level of digital literacy for urban planning staff is necessary to ensure the effective application of data systems. Capacity-building efforts may include training workshops, partnerships with academic institutions or the private sector and hiring of new personnel. Necessary skills may include geospatial analysis, computer programming, statistics and database management.

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