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For Discussion
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LEGISLATIVE COUNCIL
PANEL ON DEVELOPMENT

Hong Kong 2030+:
Towards a Planning Vision and Strategy Transcending 2030

PURPOSE

1. This paper briefs Members on the key findings and recommendations of the "Hong Kong 2030+: Towards a Planning Vision and Strategy Transcending 2030" (Hong Kong 2030+).

BACKGROUND

2. The territorial development strategy provides a spatial planning framework to plan and guide land and infrastructure development, and the shaping of the built environment. Since the 1970s, we have reviewed the territorial development strategy around once every decade to embrace new needs and aspirations. The last review entitled "Hong Kong 2030: Planning Vision and Strategy" (HK2030) was promulgated in 2007 and set out the broad directions for land supply and town planning up to 2030. In an era of rapid social, economic and technological changes, Hong Kong as an international city in a globalised world is facing a number of challenges both externally and internally, including fierce global and regional competitions, changing drivers of economic growth, climate change, growing and ageing population[1], increasing but smaller domestic households[2], strong land demand for housing, economic activities and community facilities, a rapidly ageing building stock, demand for

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[1] According to the Census and Statistics Department's (C&SD) latest population projections published in September 2015, Hong Kong's population is expected to reach its peak at 8.22 million by 2043 (an increase by 0.98 million from 2014). Proportion of population aged 65 or above is projected to increase from about 15% in 2014 to about 36% in 2064, while that of aged 85 or above is projected to increase from about 2.2% to about 10.1% during the same period.

[2] According to C&SD's latest domestic household projections published in October 2015, Hong Kong's domestic household is expected to reach its peak at 2.93 million by 2044 (an increase by 0.5 million from 2014), while the average household size is expected to decrease from 2.9 persons to 2.7 persons during the same period.

environmental protection, and rising aspiration for a better quality of life. For the sustainable development of Hong Kong, there is a need for the Government to adopt a visionary, pragmatic and action-oriented approach to tackle the planning issues critical to Hong Kong's future, and to formulate a robust territorial development strategy in the light of the latest planning circumstances and challenges ahead. Against this background and as announced in the 2015 Policy Address, the Planning Department (PlanD) commissioned the Hong Kong 2030+ study in January 2015 to provide an update to the HK2030.

HONG KONG 2030+

(a) Vision and Planning Goal

3. Building upon the foundation of Hong Kong 2030, Hong Kong 2030+ aims to examine the strategies and feasible options for the overall spatial planning, land and infrastructure development, and the shaping of the built and natural environment for Hong Kong beyond 2030. The positioning of Hong Kong as "Asia's World City"[3] and the overarching goal of sustainable development as enshrined in HK2030 remain as the vision and planning goal in Hong Kong 2030+. While major studies and indices on global and international competitiveness still show that Hong Kong is maintaining its status as one of the leading global cities, there are signs that Hong Kong's development, capacity and quality of living have been gradually lagging behind in many aspects[4]. Besides, there is scope to further improve our liveability, better cater for the needs of different age groups in an ageing society, and enhance its edge as a compact high-density city[5].

4. We need a stronger focus on strengthening our position as a liveable, competitive and sustainable Asia's World City. To this end, three building blocks, namely **"Planning for a Liveable High-density City"**, **"Embracing**

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[3] The positioning of Hong Kong as "Asia's World City" was first spelt out by the Commission on Strategic Development in its report entitled "Bringing the Vision to Life – Hong Kong's Long-term Development Needs and Goals" published in 2000.

[4] Hong Kong ranked 1st in the World Competitiveness Yearbook 2016, 2nd in the Global Opportunities Index 2015, 5th in the Global Cities Index 2015 and 9th in the Global Competitiveness Report 2016-17, but 14th in the Global Innovation Index 2016, 19th in the Monocle's Quality of Life Survey 2015, 43th in the EIU's Global Liveability Ranking 2016 and 70th in Mercer Quality of Living Survey 2016.

[5] A compact city provides convenience to its dwellers, reduces unnecessary travels, prevents urban sprawl, creates economies of scale, facilitates exchange of information and ideas, and contributes to vibrancy of the city. Compact city development is also considered sustainable at The United Nations Rio+20 Conference, and in studies such as the LSE Cities' study on "Going Green: How Cities are Leading the Next Economy". Hong Kong has decades of experience in compact city development and is highly successful in this respect.

New Economic Challenges and Opportunities" and **"Creating Capacity for Sustainable Growth"**, and a **conceptual spatial framework** that translate these building blocks in spatial planning terms, are proposed under Hong Kong 2030+. An overview of the three building blocks and the conceptual spatial framework is set out as follows.

(b) Three Building Blocks

Building Block 1: Planning for a Liveable High-density City

5. Providing a quality living environment is challenging for a high-density city such as Hong Kong. In pursuit of a liveable compact high-density city and guided by sustainability principles[6], Hong Kong 2030+ proposes to enhance the quality of the overall living environment and optimise the use of limited land and space through a two-pronged approach, i.e. optimising the new development areas and retrofitting the densely developed urban areas. From the land use and planning perspective, the following key strategic directions are proposed:

(i) promote a compact, integrated, unique, diverse, vibrant and healthy city with an urban form and urban design concepts appropriate for Hong Kong;

(ii) leverage our vast expanse and diversity of green and blue spaces[7] to enhance biodiversity, public appreciation and enjoyment as well as urban ecology;

(iii) reinvent the public space and enhance the public facilities in uplifting our liveability;

(iv) rejuvenate the urban fabric amid a large stock of rapidly ageing buildings; and

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[6] These sustainability principles include responsive urban design concepts, green building development, green neighbourhoods, quality open spaces, enhanced walkability, smart travel choices, and green mobility options, which will help create a comfortable, healthier and low-carbon living environment, a better environment and a thriving local economy.

[7] "Green assets" refers to the green spaces in Hong Kong such as country parks, open spaces and recreation spaces which are partly or completely vegetated and often used for nature conservation, recreational and/or amenity purposes. "Blue assets" refers to water bodies including harbour, rivers and streams, conservation-related water space (such as wetlands, marine parks and marine reserves), water sports centres, beaches, reservoirs and artificial lakes.

(v) promote an inclusive and supportive society through planning sensitively for all, irrespective of age and ability.

Highlights of Building Block 1

6. In order to plan for the ageing society, Hong Kong 2030+ proposes adopting the concepts of "age-friendly" planning and design and facilitating "ageing in place", which include promoting more diverse housing choices available for the elderly; facilitating the adoption of "universal design"[8] in both public and private residential developments; and providing elderly services, particularly long-term care services, preferably on an estate basis complemented by district and community based services if deemed necessary and appropriate.

7. We also see the scope to reinvent public space and enhance public facilities with a view to uplifting Hong Kong's liveability. To this end, Hong Kong 2030+ proposes to enhance the land and space provision for government, institution or community (G/IC) uses and open space, by adopting higher ratios of 3.5 m^2 and 2.5 m^2 per person for the strategic planning of G/IC and open space land requirements respectively[9]. This would help meet the public aspirations for more community facilities and open space, enhance living space in general, and provide scope to meet specific policy initiatives to improve provision of certain facilities[10].

8. One aspect for the rejuvenation of urban fabric is urban regeneration, particularly the renewal or redevelopment of buildings and structures. The bulk of Hong Kong's existing building stock was erected in the 1970s to 80s. As a rough estimate, the number of private housing units aged 70 years or above will increase by nearly 300 times from about 1,100 units at present to about 326,000 units by 2046. The redevelopment of residential buildings usually takes a long lead time mainly due to the need for amalgamating the fragmented

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[8] "Universal design" refers to the design approach to universally accessible standard in which all products, environments and communications will allow for the widest spectrum of people in our communities regardless of diversity, age and ability.

[9] For the older generation new towns such as Sha Tin, the provision of G/IC land uses (excluding those special uses/facilities which are considered as policy-driven), is estimated to be about 2.2 m^2 per person, while such provision for the newer generation new towns like Kwu Tung North New Development Area is higher at 3.5 m^2 per person. Separately, the current provision standard of open space under the Hong Kong Planning Standards and Guidelines is 2 m^2 per person.

[10] Examples include more space for kindergartens to support the policy to provide free and quality kindergarten education; redevelopment of old/substandard schools into ones that provide an environment for "joyful" learning and teaching; setting up science, technology, engineer and mathematics (STEM) Education Centres for school students at strategic locations; providing functional spaces in the vicinity of universities/agglomeration of enterprises/school clusters; and more neighbourhood elderly care facilities.

ownership, re-housing/decanting and compensation arrangements, as well as going through the necessary development procedures. Given the enormous magnitude of ageing building stock and the current modest scale of urban renewal, we have to step up urban regeneration efforts to rejuvenate the extensive old urban fabric to improve the living environment.

Building Block 2: Embracing New Economic Challenges and Opportunities

9. The Gross Domestic Product (GDP) growth in Hong Kong has been relatively modest in recent years, when our neighbouring cities are advancing quickly. While the four pillar industries continue to underpin the bulk of our economy and employment[11], there are emerging industries leveraging the global trends, and in which Hong Kong enjoys clear advantages over it regional counterparts[12] On the other hand, our geographical connection and economic integration with the Mainland and Asia are expected to be fortified with the completion of several major regional transport infrastructure in the coming few years, new initiatives under the Guangdong Free Trade Zones and "Belt and Road", as well as the cooperation with member countries of the Association of Southeast Asian Nations. To embrace future challenges and new opportunities, Hong Kong needs to move up the value chain and diversify our economic base. The building up of our land reserve would also help enhance the capacity for coping with the economic opportunities and challenges, providing diversified choices of premises for our industries and services, and creating quality jobs with a range of skills. The key strategic directions for this building block therefore include:

(i) adequate land and space for growth - to plan for adequate land and space to address current shortfalls and meet future demand, and to create strategic economic nodes to enhance our economic capacity and resilience;

(ii) a diversity of economic sectors with quality jobs with a range of skills - to adapt to the trend towards a knowledge-based economy, and to provide favourable condition to promote niche sectors and emerging industries while strengthening the pillar industries;

[11] The four pillar industries in Hong Kong are financial services, tourism, trading and logistics, and professional and other producer services. As at 2014, they contributed over half of Hong Kong's GDP and nearly half of Hong Kong's total employment.

[12] Examples include cultural and creative industries, innovation and technology industries, environmental industries, and testing and certification services.

(iii) innovation, technology and collaboration – to offer platform and conditions to promote innovation, technology and collaboration between economic sectors;

(iv) sufficient and suitable human capital – to provide relevant education and training facilities and the right conditions to nurture/attract/retain valuable human resources and talents; and

(v) adequate and timely provision of supporting infrastructure – to provide better rail, road and air connectivity and infrastructure support.

Highlights of Building Block 2

10. Among others, there is a need to plan more appropriate and affordable accommodations to cater for the small and medium enterprises (SMEs), especially the innovation start-ups and SMEs, as well as high-tech industries, in promoting "re-industrialisation" and Hong Kong's migration from traditional labour-intensive industry to smart production. Besides, we need to be robust in responding to the fast-growing economic trends such as the development of financial technology, smart production and services, global supply chain, e-commerce, as well as energy-saving and green technologies. We may support business start-ups through facilitating the provision of lower cost government premises, as well as partnerships with private enterprises and non-governmental organisations. Moreover, to spur innovation and technology, we should endeavour to provide land and space with due respect to the tech-ecosystem and locational requirements, to promote entrepreneurship, business start-ups and incubation under a comprehensive approach, noting that this direction would also require close collaboration between the Government, relevant sectors/industries, academia and research institutions, etc.

Building Block 3: Creating Capacity for Sustainable Growth

11. Hong Kong needs to create more development capacity with supporting transport and other infrastructure, and at the same time to enhance and regenerate our environmental capacity for sustainable growth. This requires an enhanced strategic planning approach to spatial development, embracing creation and regeneration of capacity in terms of more space for development, better living environment, transportation and other infrastructures, and the rich

natural environment in a holistic manner. The enhanced approach aims not only to cater for the foreseeable land use demands, but also to proactively plan in advance for capacity to enhance the quality of our living environment, to cater for potential demands and unforeseen circumstances, as well as to respond to possible changes and challenges in a timely manner. The key strategic directions for the building block include:

(i) create development capacity and optimise the use of land through a multi-pronged, robust and flexible approach by according a higher priority to reviewing and releasing degraded areas, as well as sites at the fringe of built-up areas that are deserted or have low conservation, buffer and public enjoyment value;

(ii) optimise transport and other infrastructure capacity through the provision of new/improved infrastructure, wider use of public transport, demand management and better home-job distribution;

(iii) improve the environment and create/enhance/regenerate environmental capacity through integrating biodiversity consideration into planning and decision making as well as environmental improvement; and

(iv) adopt a smart, green and resilient (SGR) city strategy that permeates all aspects of land use, transport and infrastructure planning for building a future-proofing city, supported by a common spatial data infrastructure and information and communications technology infrastructure.

Highlights of Building Block 3

12. Land and space has been a major factor constraining the development of Hong Kong in various aspects including housing provision, economic activities, community facilities and leisure and recreation space. Past experience indicates that there is a long lead time from planning to realisation of land development. It would thus be prudent to plan well in advance for sufficient capacity with spare and to build in additional buffer and contingency in the overall land use planning under the proposed vision-driven capacity-creating to strategic planning approach.

13. Taking into account the anticipated demand and foreseen circumstances for housing, economic uses, G/IC uses, open space and transport facilities, the

base case aggregate land requirement under Hong Kong 2030+ is estimated to be more than 4,800 hectares (ha)[13]. It is estimated that the existing, committed and planned developments, together with redevelopment of existing built-up areas, could only meet about 3,600 ha of the land requirement. Broadly speaking there is an anticipated land shortfall of at least 1,200 ha in the long run against the estimated land requirement. To plan in advance to cater for this outstanding land demand, two strategic growth areas (SGAs), as elaborated in paragraphs 19 and 20 below, are proposed.

14. The enhanced strategic planning approach of creating capacity would not only allow us to meet the estimated long-term land requirements, but also provide us the room or buffer to turn the visions of improving living space, enhancing living quality, averting demographic challenges, strengthening community services, and capturing economic opportunities into reality. With capacity and contingency properly and adequately planned ahead, we will have the flexibility and manoeuvrability to adjust the pace and quantum of land development projects to tie in with changing circumstances over a time span of decades. Similarly, the strategic planning of transportation and other infrastructures should be geared towards generating sufficient and timely capacity with contingency in support of the spatial distribution of development capacity. As environmental sustainability is key to planning for a compact and liveable high-density city, we should also pursue means to create, enhance and regenerate the environmental capacity that would enable more development capacity to be accommodated in a sustainable manner.

(c) Proposed Conceptual Spatial Framework

Guiding Principles

15. To translate the above three building blocks into spatial planning terms, a conceptual spatial framework is proposed under Hong Kong 2030+ (see **Plan 1**), with regard to the land supply and demand assessment, the spatial distribution of the existing, planned and committed developments, transport infrastructure, environmental conditions and the following guiding principles:

(i) conserve areas of high ecological and conservation value and pay due regard to environmentally sensitive areas, concentrate development

[13] The land requirement has yet to factor in any contingency to cater for unforeseen circumstances, other policy initiatives that are unknown at this stage and any long term vision for enhancing liveability, etc.

along axes and nodes, and avoid urban sprawl;

(ii) promote the agglomeration of economies, create the necessary critical mass, and facilitate the build-up of business ecosystems;

(iii) enhance the spatial distribution of population and jobs through the creation of economic activities and employment nodes in new SGAs to create jobs for a range of skills, bring jobs closer to homes and improve the sustainability of communities; and

(iv) enhance liveability through planning and urban design measures to retrofit congested old urban areas and create smart, green and resilient new development areas.

16. The proposed conceptual spatial framework focuses on future development with **one metropolitan business core**, **two SGAs** and **three development axes**, while conserving the natural assets and enhancing liveability. The proposed framework would prepare Hong Kong for sustainable growth with better living environment, while meeting the various social and economic development needs. It could also help redress the existing unbalanced spatial distribution of homes and jobs for the territory by creating more jobs in the New Territories. Based on the planned population and employment, the relative proportion of population and jobs in the Metro Area would be broadly reduced from about 59% to about 45% and from about 76% to about 62% respectively. The corresponding share in the New Territories would increase from about 41% to about 55% for population and from about 24% to about 38% for employment.

One Metropolitan Business Core

17. The Metropolitan Business Core covers the traditional Central Business District (CBD), Kowloon East (namely CBD2) and, subject to new strategic transport links to the main urban areas and other parts of the territory, CBD3 in the East Lantau Metropolis (ELM) as an extended urban core in the longer term. Being only about 4 km away from Hong Kong Island West, ELM could be efficiently connected to the existing CBD, reinforcing the existing business core around Victoria Harbour and creating a new metro front in the territory.

18. Functionally, the three CBDs could complement one another. The traditional CBD could focus on highly value-added financial services and

advanced producer services. CBD2 may provide options for businesses and enterprises at a new business area under transformation. The proposed CBD3 at ELM may offer modern, innovative and quality premises, creating a new financial and producer service hub strongly tied to the Hong Kong International Airport and Hong Kong's connector function in the region.

Two Strategic Growth Areas

(i) East Lantau Metropolis
(Population: about 400,000 to 700,000; Employment: about 200,000)

19. The basic concept of ELM is to create artificial islands by reclamations in the waters near Kau Yi Chau and the Hei Ling Chau Typhoon Shelter, and to make better use of the underutilised land in Mui Wo, with the aim of creating a smart, liveable and low-carbon development cluster with a CBD3. Spatially, this SGA tallies with the overall westward shift in centrality of the regional development pattern. It also provides a new platform to leverage the new and improved regional transport connections extending from the main urban area to the Pearl River Delta (PRD) east and west.

(ii) New Territories North
(Population: about 255,000 or 350,000; Employment: about 215,000)

20. Through comprehensive planning and more efficient use of the brownfield sites and abandoned agricultural land in the New Territories, developing the New Territories North (NTN) would provide land for building new communities and developing modern industries and industries preferring a boundary location, while improving the living environment of the existing area. A new town at Heung Yuen Wai/Ping Che/Ta Kwu Ling/Hung Lung Hang/Queen's Hill, together with two potential development areas at San Tin/Lok Ma Chau and Man Kam To have been identified.

Three Primary Axes

(i) Western Economic Corridor

21. With various strategic transport infrastructures in place[14], the western part of the territory will become an international and regional gateway to Hong Kong. Coupled with strategic projects such as the North Commercial District on Airport Island, topside development at the Hong Kong Boundary Crossing Facilities (HKBCF) Island of the Hong Kong-Zhuhai-Macao Bridge (HZMB), business/commercial hub in the Tung Chung New Town Extension, commercial/modern logistics development in Hung Shui Kiu New Development Area and modern logistics development in Tuen Mun West, a Western Economic Corridor will emerge and is to be fortified by the proposed ELM. This Corridor is well placed to capture many future economic opportunities in the PRD. With the new employment opportunities, the large population in the Northwest New Territories (NWNT) could have more jobs closer to homes.

(ii) Eastern Knowledge and Technology Corridor

22. The Eastern Knowledge and Technology Corridor comprises six universities[15], industrial and service support centres (such as InnoCentre and the Hong Kong Productivity Council), and high-technology and knowledge-based industries (such as data centres, research and development (R&D) institutes, science park, industrial estates) in Kowloon Tong, Tseung Kwan O, Sha Tin, Tai Po, Kwu Tung North and the Lok Ma Chau Loop. A site near the Liantang/Heung Yuen Wai Boundary Control Point (LT/HYW BCP) under construction will be explored for a new anchor use in the Corridor for possible science park/industrial estate development. The Ma Liu Shui development will also offer further potential for development of R&D, higher education, housing and/or other uses. This Corridor could be connected to the CBD2 in Kowloon East complementing the innovation and technology sectors, SMEs and a growing number of start-ups.

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[14] Including the Hong Kong International Airport and the Three-Runway System under construction, the Hong Kong Shenzhen Western Corridor, the River Trade Terminal, the HZMB and other elements of future strategic transport infrastructure (e.g. Tuen Mun-Chek Lap Kok Link).

[15] Including the Chinese University of Hong Kong, City University of Hong Kong, Education University of Hong Kong, Baptist University, Hong Kong Polytechnic University and Hong Kong University of Science and Technology.

(iii) Northern Economic Belt

23. The Northern Economic Belt commands a strategic location with the presence of six existing boundary crossings[16] and LT/HYW BCP under construction. It is also close to Shenzhen, which is strong in R&D and technological development. It will be suitable for warehousing, R&D, modern logistics and other support uses and emerging industries, thereby creating jobs for existing and future communities in the area. The proposed science park/industrial estate near the future LT/HYW BCP will be at the convergence of the Northern Economic Belt and the Eastern Knowledge and Technology Corridor, thereby inducing greater synergy between the two corridors.

Proposed Supporting Transport Network

24. The proposed supporting transport network for the conceptual spatial framework, in particular the two SGAs, i.e. ELM and NTN, is shown on **Plan 2**. Subject to further detailed study, railway would be the backbone transportation mode to internally connect the major components of ELM, while externally connecting to Hong Kong Island West, Kowloon West and North Lantau, and further with NWNT via the HKBCF Island of HZMB, thereby forming a new strategic railway corridor between NWNT and the Metro Area via Lantau and ELM. A new strategic highway corridor would also be required to connect ELM eastwards to Hong Kong Island West and northwards to the northeast Lantau/North Lantau Highway, which could then be further connected to NWNT. This strategic transport corridor would also provide alternative access to the airport and the NWNT.

25. The Northern Link, which is recommended under the Railway Development Strategy 2014, would serve the NTN development in the west. Depending on the scale of the NTN development and subject to further study, a new railway scheme would be required to support the NTN development in the east. For the highway network, if we adopt the development scenario with a lower population while having the employment maximised, NTN would not worsen the peak hour traffic demand in the Tai Lam Tunnel and on the Tolo Highway in general. However, the ultimate phase of NTN development with more population would inevitably increase traffic loading of these two strategic highways. Hence, the north-south road linkage would need to be improved

[16] The six existing boundary crossings are Shenzhen Bay Port, Lok Ma Chau Station, Lok Ma Chau, Lo Wu, Man Kam To and Sha Tau Kok.

under this scenario.

INSTITUTIONAL SETUP FOR TAKING FORWARD HONG KONG 2030+

26. The strategic directions proposed under Hong Kong 2030+ and the associated key actions cover a wide array of policy areas. To ensure that the proposals of Hong Kong 2030+ could be carried forward to timely actions, we propose to set up a high-level steering structure within the Government as the institutional setup for co-ordinating, prioritising and monitoring relevant initiatives among bureaus and departments based on the overall strategic framework of Hong Kong 2030+.

PUBLIC ENGAGEMENT

27. A six-month public engagement (PE) for Hong Kong 2030+ was launched on 27 October 2016 until end-April 2017 to canvass public views on the updated territorial development strategy. The PE booklet, comprising the main content of the study (**Annex A**) and the preliminary concepts of the two SGAs (**Annexes B and C**), as well as the PE pamphlet (**Annex D**), are enclosed for Members' reference.

28. During the PE, we will reach out to different sectors of the community through multiple channels including public forums, topical discussions, briefings, knowledge-sharing sessions, guided visits/workshops, thematic, roving exhibitions, website, etc. to enhance public understanding of Hong Kong 2030+ and facilitate focused and informed deliberation on the key strategic directions and the conceptual spatial framework proposed under Hong Kong 2030+.

NEXT STEPS

29. Taking into account the public views collected during the six-month PE, preferred spatial development option(s) will be formulated for further technical assessments under the on-going Transport and Land Use Assessment and Strategic Environmental Assessment, as well as the Sustainability Assessment to be commissioned, to broadly evaluate the social, economic and financial impacts thereof. The updated territorial development strategy will be finalised having

regard to the technical assessment findings and public views. It is expected that the entire study on Hong Kong 2030+ would be completed in 2018.

ADVICE SOUGHT

30. Members are invited to note and offer views on the key findings and recommendations of Hong Kong 2030+.

ATTACHMENTS

Plan 1	Conceptual Spatial Framework for Hong Kong 2030+
Plan 2	Supporting Transport Network
Annex A	Public Engagement Booklet – "Hong Kong 2030+ - Towards a Planning Vision and Strategy Transcending 2030"
Annex B	Annex of Public Engagement Booklet – "Preliminary Concepts for the East Lantau Metropolis"
Annex C	Annex of Public Engagement Booklet – "Preliminary Concepts for the New Territories North Development"
Annex D	Public Engagement Pamphlet

Development Bureau
Planning Department
November 2016

*Major Committed / Under Planning Land Supply includes:

Kai Tak Development, North Commercial District on Airport Island, Tung Chung New Town Extension, Topside Development at HKBCF Island of HZMB, Yuen Long South, Hung Shui Kiu NDA, Kam Tin South, Lok Ma Chau Loop, Kwu Tung North NDA, Fanling North NDA, Anderson Road Quarry, Diamond Hill CDA Site, Ex-Lamma Quarry, Ex-Cha Kwo Ling Kaolin Mine, Tuen Mun Areas 40 & 46, Kwu Tung South and Tseung Kwan O Area 137

Conceptual Spatial Framework for Hong Kong 2030+

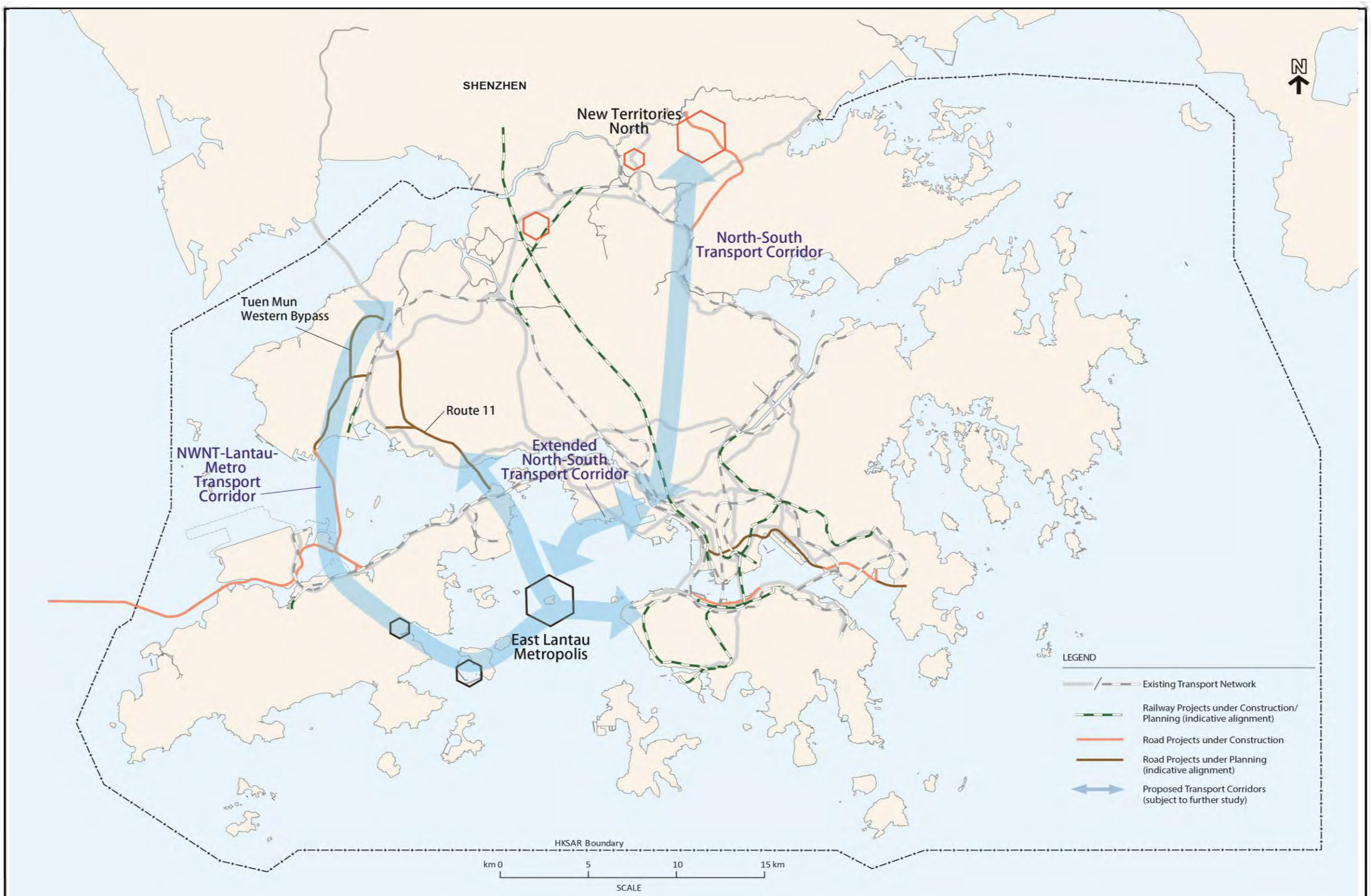
DEVELOPMENT BUREAU

PLANNING DEPARTMENT

Reference No. M /SP / 16 / 441

DATE 31. 10. 2016

PLAN 1



Supporting Transport Network

DEVELOPMENT BUREAU

PLANNING DEPARTMENT

Reference No. M /SP / 16 / 443

DATE 31. 10. 2016

PLAN 2

ANNEX A

HONG KONG 2030+

Towards a Planning Vision and Strategy Transcending 2030

PUBLIC ENGAGEMENT

Splendors of Victoria Harbour

Foreword

In an era of rapid social, economic and technological change, Hong Kong as an international city in a globalised world is facing huge challenges, both externally and internally. Externally, we are facing fierce global and regional competition. Many of our neighbouring major cities, especially those in the Mainland and Southeast Asia, are advancing quickly to take advantage of the unprecedented economic growth in the eastern hemisphere. Besides, with the completion of several major regional transport infrastructure developments in the coming few years, Hong Kong's geographical connection and economic integration with the fast growing Pearl River Delta region and beyond will be greatly enhanced, giving rise to both opportunities and challenges. Internally, we have a rapidly ageing society and an even more rapidly ageing building stock. There is a pressing need for developable land for housing, economic activities and community facilities. At the same time, there is an ever growing community demand for a better quality of life. Hong Kong needs to respond strategically and swiftly to meet these challenges and to tap into new opportunities.

"Hong Kong 2030+: Towards a Planning Vision and Strategy Transcending 2030", a vision-driven, pragmatic and action-oriented strategic plan, is our response. Our vision for Hong Kong is that it continues to be a liveable, competitive and sustainable "Asia's World City". To this end, the updated territorial development strategy reflects three underlying aims: enhancing liveability in our high-density compact city; embracing economic challenges and opportunities; and creating capacity for sustainable growth.

This strategic plan will guide Hong Kong's planning, land and infrastructure development, as well as the shaping of our built and natural environment, beyond 2030. Our ability to create and use land resources wisely will have a direct bearing on whether the people of Hong Kong can enjoy a more satisfying living environment, with better essential services and facilities, and have a more fulfilling and diverse quality of life, with opportunities for recreation, leisure and culture befitting their individual tastes. Yet, in taking forward development projects, we need to be guided by the concept of sustainability and maintain respect for our environment. This strategic plan is a blueprint for the long-term sustainable development of Hong Kong, which is important for our future, and that of future generations.

I would like to take this opportunity to thank my colleagues of the Planning Department who have been driving the formulation of Hong Kong 2030+, and the various government bureaux and departments, professionals and experts who have provided their valuable input to this strategic plan. This latest update to our territorial development strategy builds upon previous strategic plans. It is a plan that transcends generations and the term of a single government. We are putting this strategic plan to our community for consideration, and I sincerely hope to hear your views on the direction we should take for the future of Hong Kong. Let's work together to plan for a liveable, competitive and sustainable Hong Kong.

Paul MP Chan
Secretary for Development

About Hong Kong 2030+

HONG KONG 2030+

Towards a Planning Vision and Strategy Transcending 2030

"Updating the territorial development strategy to guide planning, land and infrastructure development and the shaping of the built environment of Hong Kong beyond 2030"

P.1

About Our City

"Zooming out to the region and the world and zooming into Hong Kong to understand the context and issues"

P.2-18

Aspirations: Our Vision and Planning Goal

"To become a liveable, competitive and sustainable Asia's World City, championing sustainable development as the overarching planning goal"

P.19-21

Building Block 1

"Planning for a Liveable High-density City"

✓ Enhancing liveability in our compact high-density city by retrofitting the densely developed urban areas and optimising development in new development areas

P.22-34

Building Block 2

"Embracing New Economic Challenges and Opportunities"

✓ Equipping Hong Kong with land and space, supporting infrastructure and human capital for the economy to move up the value chain by promoting a diversity of economic sectors, innovation and technology as well as quality jobs with a range of skills

P.35-43

Building Block 3

"Creating Capacity for Sustainable Growth"

✓ Creating development capacity while enhancing the environmental capacity for the sustainable growth of Hong Kong

P.44-61

City Strategy for being SGR

"A Smart, Green and Resilient City Strategy for sustainable development of Hong Kong."

P.58-59

Conceptual Spatial Framework

1. Metropolitan business core
   around Victoria Harbour
2. Key strategic growth areas
   East Lantau Metropolis
   New Territories North
3. Emerging development axes
   Western Economic Corridor
   Northern Economic Belt
   Eastern Knowledge and Technology Corridor

\+ Supporting transport network with railway transportation as the backbone

P.62-77

Highlights, and Considerations and Choices for the Community

We welcome your valuable views

P.78-82

About Hong Kong 2030+

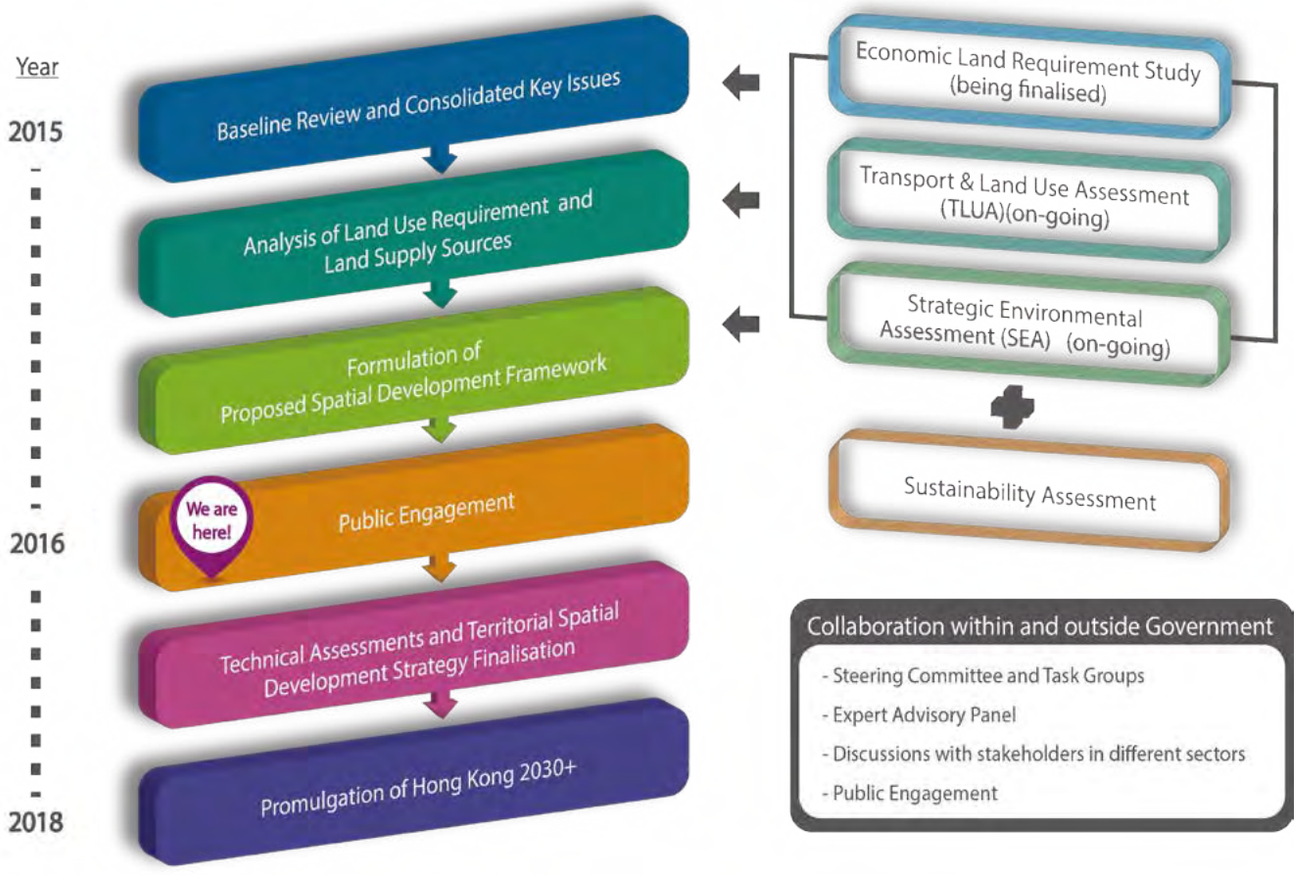
Strategic planning has a long history in Hong Kong. "Hong Kong 2030+: Towards a Planning Vision and Strategy Transcending 2030" (Hong Kong 2030+) is a comprehensive strategic study to update the territorial development strategy and provide a spatial planning framework to guide the future planning, land and infrastructure development and the shaping of the built environment of Hong Kong beyond 2030.

Since the 1970s, we have reviewed the territorial development strategy around once every decade to embrace new needs and aspirations. The last review, "Hong Kong 2030: Planning Vision and Strategy" (Hong Kong 2030), was promulgated in 2007. This update, known as "Hong Kong 2030+", is built on the foundations of Hong Kong 2030 and has revisited the planning strategy and spatial development directions beyond 2030 in the light of the dynamics and challenges ahead. Pursuant to the 2015 Policy Address, the Hong Kong 2030+ study commenced in early 2015. It is scheduled for completion by early 2018.

Hong Kong 2030+ represents the Government's vision, policy and strategy for the territorial development of Hong Kong beyond 2030. It has adopted a visionary, proactive, pragmatic and action-oriented approach. This is to ensure a focused public dialogue on the key planning issues critical to future development and a timely response to the changing circumstances in and outside of Hong Kong. The proposals and ideas raised in this booklet serve to facilitate public engagement on aspects that Hong Kong has to plan for. We welcome your views.

> **"The territorial development strategy is a living document that is constantly updated together with the community."**

Fig. 1 Major Study Tasks of Hong Kong 2030+



About Our City
Zooming Out: the Global Context

Global Positioning

Hong Kong has been positioning itself as Asia's World City. According to an array of international surveys and global benchmarking indexes, Hong Kong stands out as a highly competitive global city, a leading financial centre and business hub, an attractive tourist destination, a city with a reputable brand, and a city with world-class infrastructure. Some of the comparative advantages are planning-related, such as strategic spatial planning, good international and regional connectivity, compact city form, high urban mobility, a vast expanse of green spaces and large areas of nature and cultural heritage conservation importance. Nevertheless, Hong Kong only has a moderate performance for liveability and innovation, which must be enhanced. In areas where Hong Kong does well, they should be reinforced in future planning to maintain our leading position.

Ranking Of Hong Kong

- 1st — World Competitiveness Yearbook 2016
- 9th — Global Competitiveness Report 2016-17
- 5th — Global Cities Index 2015
- 19th — Monocle's Quality of Life Survey 2015
- 2nd — Global Opportunity Index 2015
- 43rd — EIU's Global Liveability Ranking 2016
- 70th — Mercer's Quality of Living Survey 2016
- 14th — Global Innovation Index 2016

"We need to think globally to rise to global challenges and to maintain our competitive position."

Global Megatrends

In an increasingly connected world, we need to duly consider the emerging global megatrends that will impact on and bring new opportunities for the future development of Hong Kong.

Source: adapted from KPMG's "Future State 2030: The Global Megatrends Shaping Governments"

Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone


Hengqin FTZ


Nansha Ferry Terminal in Nansha FTZ

Fig. 2 Belt and Road

Silk Road Economic Belt
- China to Europe (through Central Asia and Russia)
- China to the Middle East (through Central Asia)
- China, Southeast Asia, South Asia and the Indian Ocean

21st Century Maritime Silk Road
- China to Europe (through the South China Sea and Indian Ocean)
- China to the South Pacific Ocean (through the South China Sea)

This preliminary map is based on the proposed geoeconomic cooperation described in the Vision and Actions on Jointly Building the Silk Road Economic Belt and 21st-Century Maritime Silk Road document. Actual routes may differ and may also extend to encompass other territories as the project develops.

Data Source: Airport Authority Hong Kong

Fig. 3 Reaching Half of the World's Population Within Five Hours' Flying Time

The Regional Dimension

"Mega-city regions are the nexus of economic growth. Hong Kong together with the PRD Region will be a mega-city region to tap into the growth potential of the Asia-Pacific."

Hong Kong is maintaining close social and economic links with the Mainland and Asia. As a leading global city, Hong Kong is strategically located and well-connected by world-class infrastructure as a regional gateway for investment, trade and services to and from the Mainland and the world.

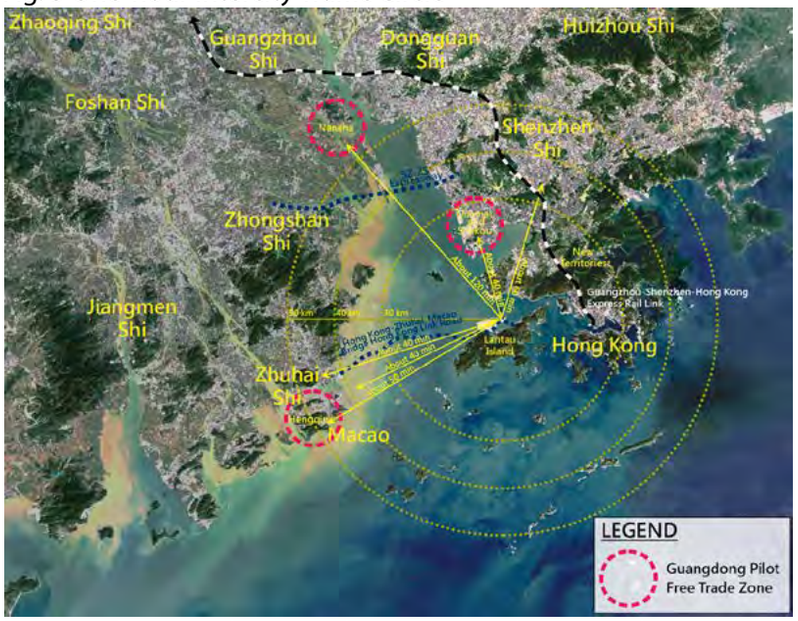
Hong Kong has been in close cooperation with countries in Asia including the member countries of the Association of Southeast Asian Nations (ASEAN) in economic development. Within five hours' flying time, we can reach most parts of Asia and half of the world's population.

Within the Greater Pearl River Delta (PRD) Region, a three-hour living circle and a one-hour intercity traffic circle have already emerged with major new infrastructure. These include the Guangzhou-Shenzhen-Hong Kong Express Rail Link (Hong Kong Section), Hong Kong-Zhuhai-Macao Bridge (HZMB) and Liantang/Heung Yuen Wai Boundary Control Point and Link Road under construction. They will foster greater social and economic interactions and economies of scale of the Greater PRD city region.

The National Thirteenth Five-year Plan emphasises deepening cooperation between the Mainland and Hong Kong including Guangdong-Hong Kong-Macao cooperation platforms in Qianhai, Nansha and Hengqin, Guangdong-Hong Kong-Macao Big Bay Area, and the Pan-PRD Region. New initiatives such as China (Guangdong) Pilot Free Trade Zones (FTZs) and the "Belt and Road" initiatives will foster cooperation within the PRD, other parts of the Mainland and other countries in Europe, Africa and Asia, opening up further economic opportunities and development platforms that extend beyond our city boundary.

Fig. 4 Infrastructure in the Greater PRD Region

Fig. 5 One-hour Intercity Traffic Circle



	Hong Kong	PRD	Guangzhou	Shenzhen	Zhuhai
Land area (km^2)	1,106	About 42,000	7,434 (2014)	1,997 (2014)	1,724 (2014)
Population (million)	7.32 (2015)	Over 57 (2014)	13.08 (2014)	10.78 (2014)	1.61 (2014)
Gross Domestic Product (billion)	HKD 2,258 (2014)	RMB 5,765 (2014)	RMB 1,671 (2014)	RMB 1,600 (2014)	RMB 187 (2014)
Air Passenger throughput (million)	68.5 (2015) (HKIA)	-	55.21 (2015) (Baiyun Airport)	39.72 (2015) (Bao'an Airport)	4.7 (2015) (Zhuhai Airport)
Air Cargo throughput (million)	4.38 tonnes (2015) (HKIA)	-	1.54 tons (2015) (Baiyun Airport)	1.01 tons (2015) (Bao'an Airport)	0.026 tonnes (domestic cargo) (2015) (Zhuhai Airport)
Port Cargo throughput ('000 TEUs)	20,073 (2015)	-	17,590 (2015)	24,205 (2015)	1,170 (2014)
		China (Guangdong) Pilot Free Trade Zone	◉ Nansha Area, a 60km^2 district for a world-leading comprehensive service hub, promoting Guangdong-Hong Kong in-depth co-operation, and establishing technology and innovation transfer platform	◉ Qianhai and Shekou Area, a 28.2km^2 district for modern service, information technology and cultural creative industries	◉ Hengqin Area, a 28 km^2 district for tourism, leisure and health, business financial services, cultural, science, education, high tech and other industries

Sources : Hong Kong Shipping Statistics, China (Guangdong) Pilot Free Trade Zone and relevant Mainland statistics reports and airport websites

About Our City
Zooming In: Hong Kong


Satellite image of Hong Kong

Area and Topography

1,106 km² : Land Area

1,649 km² : Sea Area

About 20% of land is steep slopes (i.e. ≥30° in gradient)

≥30°


Central Harbourfront

Built Environment

Built-up areas take up 24% of land of which 26% is reclaimed land accommodating 27% of total population

Average population density of built-up areas is about 27,330 person/km²

Employment

76% in Metro Area#
24% in the New Territories

Population

59% in Metro Area#
41% in the New Territories

Metro Area covers Hong Kong Island, Kowloon, Tsuen Wan and Kwai Tsing

7.32M population*
3.75M jobs
3.91M labour force
59.3M visitor arrivals
(as at 2015)

*The 2014 figure of 7.24M is adopted for analysis purpose

95% of office GFA in Metro Area

114 declared monuments
1,027 historic buildings with confirmed grading
(as at April 2016)

Four decades of new town development accomodating 3.4M population

1.64m² average Local Open Space (LO) per person^
1.07m² average District Open Space (DO) per person^

^ 4 and 6 out of 18 districts have provisions of LO and DO less than 1m² per person respectively


Stonecutters Bridge

Economy

GDP HKD$ 2,397 billion (2015)
Per capita GDP HKD$ 0.3 million
93% of GDP from services sector

FOUR PILLAR INDUSTRIES

58%* of GDP
47%* of total employment
* Based on 2014 figure

- Trading and Logistics
- Professional and Other Producer Services
- Financial Services
- Tourism

Natural Environment

443 km²
country parks and special areas

24 km²
marine parks/marine reserves

76 km²
areas zoned
Site of Special Scientific Interest, Conservation Area or Coastal Protection Area on statutory town plans

85% of population within 3km environs of a country park

90% of population within 400m from a park

- 56 species of terrestrial mammals
- 236 species of butterflies
- 185 species of freshwater fish
- 538 species of birds

Transport

About 90% of passenger trips (12.6 million average daily passenger trips) by public transport

Rail share of passenger trips by public transport >40%

Within 500m from a rail station

77% of commercial/office GFA
45% of living quarters


Sunset Peak


Mai Po Fishponds

Climate Change

Annual mean sea level
+30mm per decade
on average during
1954-2015

Annual mean temperature
+0.17°C per decade
on average during
1986-2015

Annual greenhouse gas emission (2013)

Total:
44.4 million tonnes

Per capita:
6.2 tonnes

Carbon intensity:
0.021 kg CO_2-e per Hong Kong Dollar GDP

Greenhouse gas sources (2013)

- 68% from electricity generation (90% of electricity consumed in buildings)
- 17% from transport
- 6% from waste
- 9% from others

About Our City
Zooming In: Hong Kong

Several salient planning issues will impact on Hong Kong in the years ahead. Together with the global and regional context, they form the basis for formulating the vision, the overarching planning goal and the building blocks of the updated territorial development strategy over the long term.

People

A growing and ageing population and a shrinking labour force

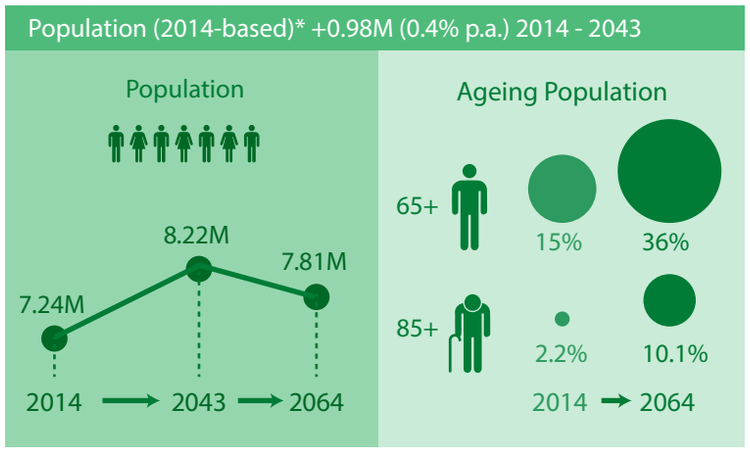
According to the Census and Statistics Department (C&SD) projections released in September 2015, our population will continue to grow over the next 30 years, albeit at a slower rate. It will increase from about 7.24 million in 2014 and peak at about 8.22 million in 2043 before reaching about 7.81 million by 2064. The number of domestic households will grow at a faster rate from 2.43 million in 2014 and peak at about 2.93 million in 2044 before reaching 2.91 million by 2049, mainly due to decreasing household size from an average of 2.9 persons/ household in 2014 to 2.7 persons/ household by 2044.

Our population is ageing quickly. The population aged 65 or over is projected to rise significantly from about 15% in 2014 to about 36% by 2064. The population of the old-old (i.e. aged 85 or above) will rise from the current 2.2% to 10.1% by 2064. The ageing population will reduce our labour force, which currently stands at about 3.6 million (excluding foreign domestic helpers) and is expected to drop very soon from its peak at 3.65 million in 2018 to about 3.11 million by 2064.

These demographic changes and ageing trends, coupled with the uncertain return of non-resident population and significant increase in visitors and cross-boundary travels, will have implications for the planning of land uses (such as housing, community facilities, open spaces and hospitals) and infrastructure.

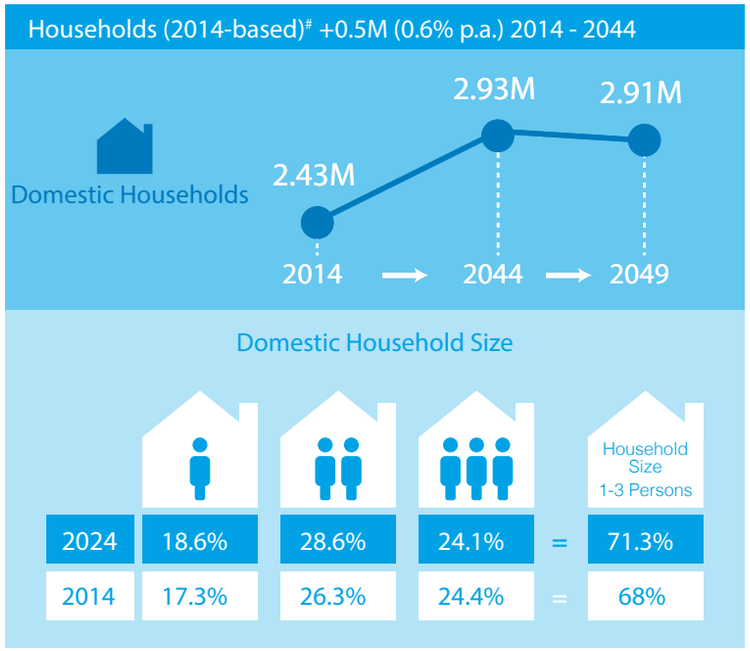
> **“Our growing yet ageing population will pose substantial challenges to both society and the economy.”**

Fig. 6 Population Projections



* C&SD: Baseline population projections up to 2064

Fig. 7 Domestic Household Projections



C&SD: Household projections up to 2049

Jordan Valley Park

Enhancing liveability

Enhancing liveability is important in promoting the health, well-being and quality living environment of Hong Kong people. Enhancing liveability will also strengthen our competitiveness through creating a better environment in which to work, to do business and pursue leisure, attracting and retaining businesses and talents, as well as maintaining our status as a world city. There should be a stronger focus on quality of life, and we have to tackle the challenge of enhancing liveability in the high-density urban context of Hong Kong.

18.8M trees planted by the Government, 2001-2011

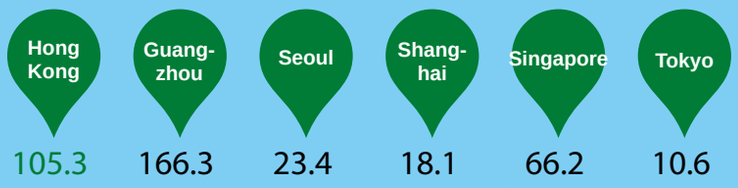
Urban design and landscaping are key components of a quality urban environment. Since the inception of the Greening Master Plan (GMP) programme in 2004, the GMPs for the urban areas have been developed and the greening works recommended for immediate implementation have been completed. The Government is currently developing GMPs for the New Territories.

73km of harbourfront

Victoria Harbour at the centre of the dense urban core is a precious public asset of Hong Kong and a pivotal part of shaping a more liveable urban environment. There is a consensus to enhance Victoria Harbour and its harbourfront areas as an attractive, vibrant, accessible and sustainable world-class asset: a harbour for the people and a harbour of vitality. The Government together with the Harbourfront Commission has been working towards this goal.

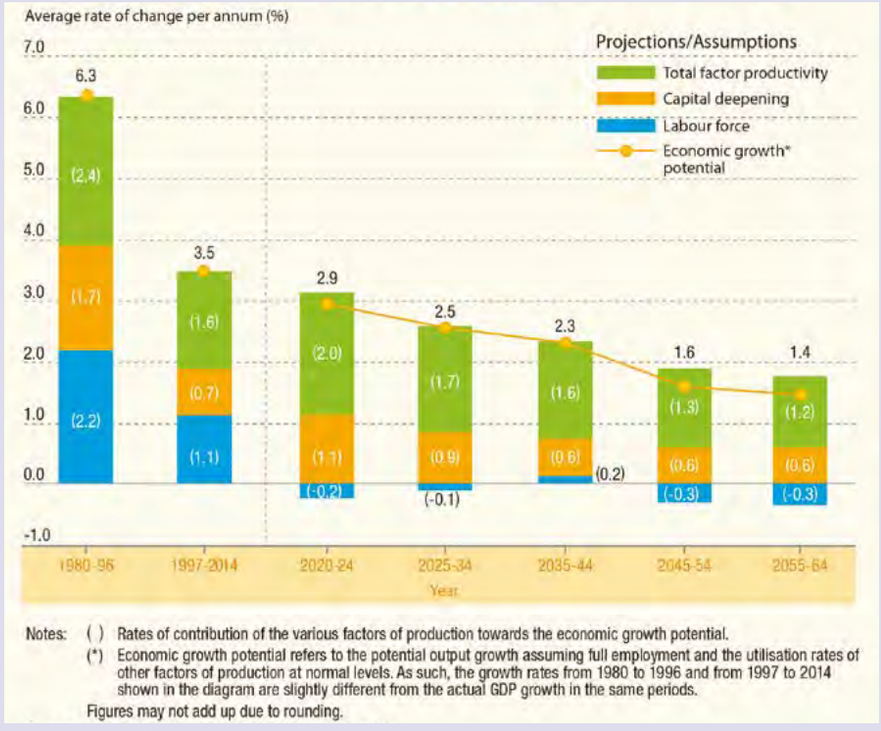
Fig. 8 Green Space Per Capita

Green space is an integral part of a liveable compact city. Hong Kong performs well in this respect and will continue to maintain this advantage.



Source: Asian Green City Index (2011), a research project conducted by the Economist Intelligence Unit, sponsored by Siemens

Fig. 9 Economic Growth will be Dragged by an Insufficient Labour Force



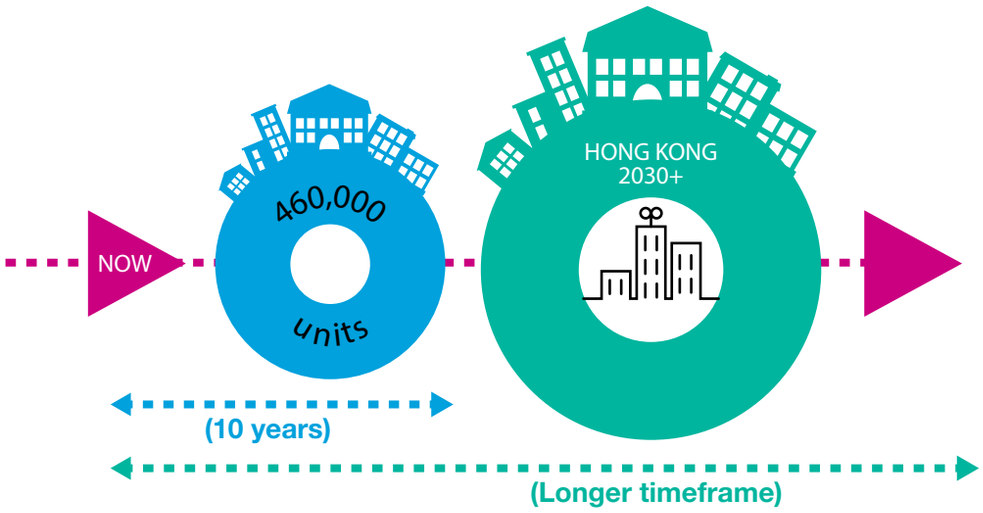
Source: Extracted from a consultation document on retirement protection (2015)

Enabling education and technology to increase productivity

Human capital is fundamental to sustaining growth. We will have to depend more on increasing productivity amid the ageing and shrinking labour force. How to unleash the potential of our local workforce, retain/attract local and overseas talents, and plan for supply of land/premises to cater for a high value-added and knowledge-based economy will be some of our major challenges.

> **"Enhancing liveability will promote our well-being while human capital is fundamental to sustained growth."**

About Our City
Zooming In: Hong Kong



Growth in housing demand

The Government has adopted 460,000 units as the total housing supply target for the 10-year period from 2016/17 to 2025/26 under the Long Term Housing Strategy (LTHS). Hong Kong 2030+ will consider the housing demand of the community over a much longer timeframe based on roughly the same methodology adopted in LTHS.

"The bulk of housing land demand mainly originates from projected new households, inadequately housed households, and rapidly ageing building stock."

Decline in housing supply in the past decade

Fig. 10 Flat Completion (2000-2015)

Decline in new private flat completion from 32,746 units in 2002 to 11,280 units in 2015

The vacancy rates of private domestic units fluctuated between a peak of 6.8% in 2002/2003 and 3.7% in 2015


Tseung Kwan O New Town


Tseung Kwan O New Town


Ho Ka Fai
Me and the On Yam, Shek Lei and Shek Yam Community
@Your Neighbourhood Photographic Competition


Sha Tin New Town

Increase in Domestic Households

2.93M

domestic households in 2044 (+0.5M from 2014)
(Not including households with mobile residents+ only. 229,200 mobile residents at the end of 2015.)

2.7 persons

average domestic household size in 2046 (-0.2 persons from 2016)

+ Hong Kong Permanent Residents who have stayed in Hong Kong for at least 1 month but less than 3 months during the 6 months before or for at least 1 month but less than 3 months during the 6 months after the reference moment, regardless of whether they were in Hong Kong or not at the reference moment

Ageing Building Stock

Large quantity of old buildings

326,000

private housing units aged 70 or above (completed in 1976 or before) in 2046 (about 300 times of the stock of the same age in 2015)

Old private building units will be concentrated in urban areas (over 60,000 units aged 70 or above by 2046 in Yau Tsim Mong district). Redevelopment of old buildings requires overcoming multiple ownerships and land to provide for the displaced households.

Inadequately housed in Sub-divided Units (SDUs)

87.6K

households in SDUs (2015)

10.3m^2

median floor area of SDUs in 2015

Source: Census and Statistics Department

Living Space

Public Rental Housing (PRH)

32m^2

average internal floor area* (IFA) per unit in 2015

13m^2

average living space per person (IFA) in 2015^

*IFA refers to the area contained within the enclosing walls of a unit measured to the interior face of the external wall or separating wall.

^ The average living space per person of all PRH households. The living space per person of each PRH household is defined as the ratio of the internal floor area of the PRH flat occupied by the PRH household to the number of authorised persons in that household.

Private Housing

80%

of flats in 2015 are below 70m^2 saleable area# (SA)

57m^2

average flat size (SA) in 2015

20m^2

average living space per person (SA) in 2015 (derived by dividing 57m^2 by average household size (2.9))

#SA is defined as the floor area exclusively allocated to the unit. It includes balconies, verandas, utility platforms and other similar features, but excludes common areas, such as stairs, lift shafts, pipe ducts, lobbies and communal toilets. Bay windows, flat roofs, top roofs, stairhoods, cocklofts, gardens, terraces, yards, air-conditioning plant rooms, air-conditioning platforms, planters/flower boxes and parking spaces are also excluded.

Photo credit: Mr. Lo Loi
Building After Building, Kowloon Bay
Outstanding Award of City Impression
@ Your Neighbourhood Photographic Competition

About Our City
Zooming In: Hong Kong

Economy

Keen competition in the global and regional economy

Hong Kong's pace of economic growth has been lagging behind some of its large neighbouring cities. Globally, the driver of economic growth has shifted to knowledge and innovation and the growth potential towards the East. Regionally, Hong Kong has maintained a close economic relationship with the Mainland, ASEAN and other foreign countries. We should enhance the capacity for innovation to underpin competitiveness. We should also harness new economic opportunities arising from the shift of economic potential, better regional connectivity and functional integration, the Guangdong Pilot FTZs, and the "Belt and Road" initiatives.

As a global financial hub, a choice location for corporate headquarters and a regional business and logistics hub, Hong Kong has already transformed from a manufacturing-based economy to a modern-services economy, with the services sector accounting for about 93% of the GDP and about 88% of total employment in 2014. To move ahead amidst keen global and regional competition, we need to broaden our economic base while retaining our four pillar industries[#]. In particular, we need to move up the value chain in future economic transformation and to:

(i) promote new emerging industries, especially those knowledge and technology-based and high value-added industries (e.g. innovation and technology, energy saving and green technologies, modern industries, smart production, and advanced manufacturing industries);

(ii) facilitate innovation start-ups, riding on an emerging entrepreneurship around the world and technopreneurship in particular;

(iii) support the small and medium enterprises (SME) accounting for over 98% of local business units to move up the value chain; and

(iv) nurture local talents and attract those from overseas.

In the light of the above, the ever-rising rents and the declining vacancy rates for almost all types of commercial and industrial premises in recent years, we should plan more suitable and affordable land use to meet the increasing demand from various economic activities, facilitating business entry to Hong Kong, and supporting the innovation start-ups.

#Hong Kong's four pillar industries are trading and logistics, financial services, tourism, and professional and other producer services. They accounted for about 57.5% and 47.5% of Hong Kong's GDP and total employment, respectively, in 2014.

"We need to supply land at the right locations to support continuous growth of the pillar and new industries amidst keen competition in the global and regional economies. We also need to boost a knowledge and technology-based and high value-added economy with innovation and talents as the key drivers of growth."

Night views of Victoria Harbour


Nominal GDP per capita (US$)
69,949
Tokyo
(2013)
52,888
Singapore
(2015)
29,311
Seoul
(2013)
42,327
Hong Kong
(2015)
16,553
Shanghai
(2015)
25,365
Shenzhen
(2015)

About Our City
Zooming In: Hong Kong

Transport infrastructure

Requirement for new transport infrastructure

The performance of our strategic highway network is considered satisfactory in general. However, congestion exists at a number of locations including the Cross-harbour Tunnel and Lion Rock Tunnel. The commissioning of Central-Wan Chai Bypass and Route 6 will substantially improve the east-west traffic conditions in the urban areas. However, the resolution of congestion problems elsewhere would require further initiatives.

For the railways, both the North South Corridor[#] and the East West Corridor[#] are expected to show capacity concerns, even with all of the lines under construction and the schemes recommended in the Railway Development Strategy 2014 in operation.

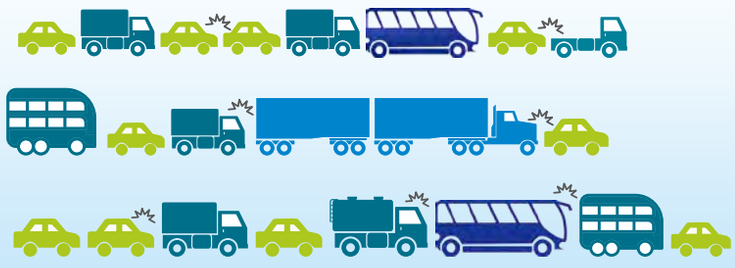
Although public transport takes up about 90% of our daily passenger trips, the number of private vehicles has shown an average annual growth rate of about 3% from 1995 to 2015, against about 0.8% and 1.7% for population and domestic household growth respectively over the same period. Such a trend, in the long run, will not be sustainable in terms of competing road space for private vehicles and other transport modes, land for new roads, car parks and other supporting facilities, and journey time. To address the problems, new transport infrastructure and innovative measures to curb private vehicle growth and reduce private vehicle use should be introduced and expansion of the public transport network, in particular rail-based transport, to support new developments should be pursued.

Cross-boundary trips also saw a significant increase with the close ties between Hong Kong and the Mainland. Over the past decade, the average daily cross-boundary passenger trips have increased by more than 50% from 394,000 in 2005 to 610,000 in 2015. New boundary crossing facilities including the Hong Kong-Zhuhai-Macao Bridge, the Guangzhou-Shenzhen-Hong Kong Express Rail Link (Hong Kong Section) and the Liantang/Heung Yuen Wai Boundary Control Point are under construction. These facilities will further enhance the connectivity with the Greater PRD Region upon commissioning.

The North South Corridor covers the existing East Rail Line and the future Shatin to Central Link from Hung Hom Station across Victoria Harbour to Admiralty, whereas the East West Corridor comprises the existing West Rail Line, the Tai Wai to Hung Hom section of the Shatin to Central Link and the existing Ma On Shan Line.

Fig.11 Private Vehicles Average Annual Growth Rate (1995-2015)

*If private vehicles continue to grow at 3% per annum, the total number will reach 1.23 million by 2041, i.e. more than double that of 2015



Other Infrastructure

Requirement for other infrastructure

Although the existing public infrastructure is adequate, new or expanded facilities for sewage treatment, waste management and fresh and flushing water supply, and hence more land, are required to support population and economic growth.

For waste disposal, the three existing strategic landfills are anticipated to reach their capacities in the coming years. With the South East New Territories and North East New Territories landfill extension projects in place, the landfills are expected to cope with Hong Kong's ultimate waste disposal need up to mid- or late-2020s. Their capacities and lifespans depend on the waste reduction achievements of other initiatives (as noted in the Hong Kong Blueprint for Sustainable Use of Resources 2013-2022). To tackle the waste management infrastructure problem, measures include the development of the Integrated Waste Management Facility, a network of regional Organic Waste Treatment Facilities and the extension of the three existing strategic landfills. To enable adequate water supply for the growing population, upgrading existing or building new waterworks infrastructure, such as water treatment works and service reservoirs, will be required. For sewerage, about 93% of the population is served by the public sewerage system. In the Sewerage Master Plans, the sewerage network and sewage treatment facilities are being upgraded on a catchment-by-catchment basis to improve the performance of the whole system. Some older sewage treatment works will be upgraded. The Government is continuing to invest considerable resources in the sewerage infrastructure, such as the Harbour Area Treatment Scheme, to improve the environment.

More importantly, we will not only plan for adequate infrastructure, but also smart, green and resilient infrastructure that should be well-integrated for better synergy and land efficiency.

> **"Our city thrives on efficient infrastructure but it needs to be improved in quality and quantity, land efficiency and resilience."**

T · PARK, Tuen Mun

About Our City
Zooming In: Hong Kong

Environment and ecology

Readiness for climate change

The annual mean temperature of Hong Kong has increased by 0.17°C per decade between 1986 and 2015. The mean sea level has risen by 30mm per decade between 1954 and 2015 . High greenhouse gas concentrations and global warming will bring more hot nights, more extreme weather, unstable water resources, sea level rises, storm surge, etc.

Hong Kong's climate change-readiness should be enhanced, which calls for fundamental changes in mindset, a comprehensive planning strategy for a low-carbon city, and actions for mitigation, adaptation and resilience. The Government is taking steps to reduce carbon intensity by 50% to 60% by 2020, compared to the 2005 level. Hong Kong has also set a target to reduce energy intensity by 40% by 2025 compared to the 2005 level. The Government is considering setting new climate change related targets.

Environmental issues

Our air quality is influenced by local emission sources (e.g. power plants, road traffic, and marine vessels) and trans-boundary pollution from regional sources.

The water quality in the eastern side of Hong Kong is generally good, whereas the water quality of the Deep Bay area is less favourable.

Noise pollution remains a common issue in urban and densely populated areas.

There is scarcity in natural resources such as fresh water supply and non-renewable energy.

The siting of essential environmental infrastructure, especially that related to waste and sewage treatment, often faces objection.

> **"The threats of climate change to humans and the environment are pressing. We need to act promptly to manage such risks and protect our biodiversity."**

Flooding on Wing Lok Street, Sheung Wan in 2008

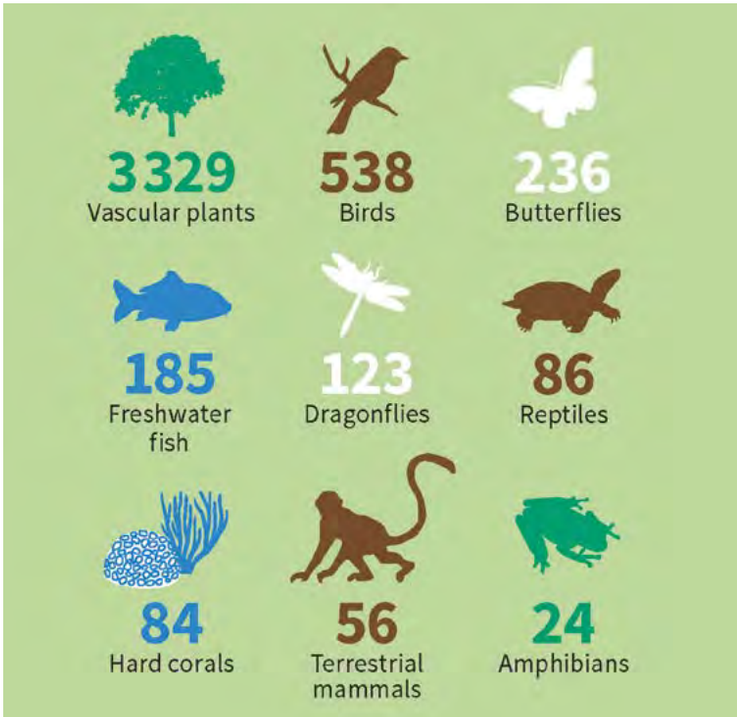
Fig.12 Flora and Fauna in Hong Kong

Nature conservation and biodiversity

Biodiversity is important because it is a measure of how stable ecosystems are.

The majority of terrestrial habitats with high ecological value are protected by country parks, special areas and conservation zonings on statutory plans, supporting the representative populations of more than 98% of local terrestrial wildlife. Marine habitats are protected by marine parks and marine reserves. Other than the rich and varied fauna, the flora of Hong Kong is diverse in character with more than 3,300 species and varieties of vascular plants.

The Government is committed to developing a five-year Biodiversity Strategy and Action Plan (BSAP) with a view to stepping up conservation efforts and supporting the sustainable development of Hong Kong. Four aspects, namely conservation, mainstreaming, knowledge and community involvement, will form the framework of Hong Kong's first BSAP.



Source: Based on consultation document of Biodiversity Strategy and Action Plan (BSAP) for Hong Kong (2016)

About Our City
Zooming In: Hong Kong

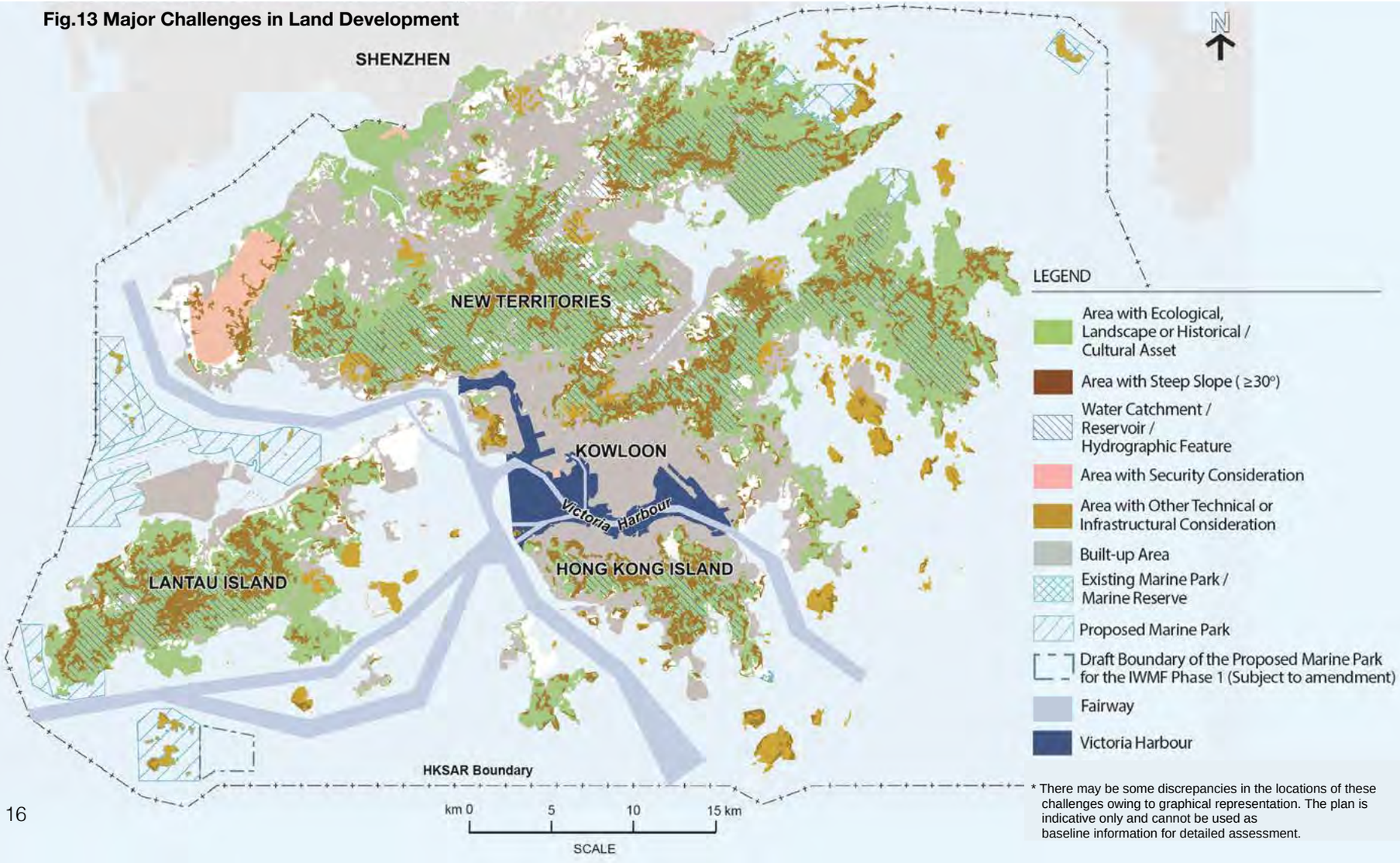
> **"More developable land is needed not only to support a still growing population, but also to sustain economic growth and a quality living environment."**

Land

Currently, the built-up areas take up about 268 km^2 or 24% of the total land area. Together with the planned development areas and areas under planning studies, the built-up areas will be expanded to about 311 km^2 or 28% of the total land area. The majority of the remaining 72% of land area comprises natural assets, environmentally or ecologically sensitive areas, hilly terrain, etc. Likewise, the sea area encompasses our working harbour, fairways, natural heritage as well as ecologically sensitive marine habitats. Despite the presence of many constraints, additional developable land has to be identified to redress the shortage of land and space for various uses, to meet the needs of our growing population and economy, and to respond to the aspirations of the community for a quality living environment.

Land production and development take considerable time and require visionary and forward planning. To plan for land and space with the necessary supporting infrastructure and facilities to meet our needs is a key task of Hong Kong 2030+. We neither have a crystal ball nor a perfect model to precisely predict the future long-term land requirements. Yet, we still have to stocktake our needs and work out projections and ballpark estimates for proposing a resilient land supply strategy in support of the territorial development.

Fig.13 Major Challenges in Land Development



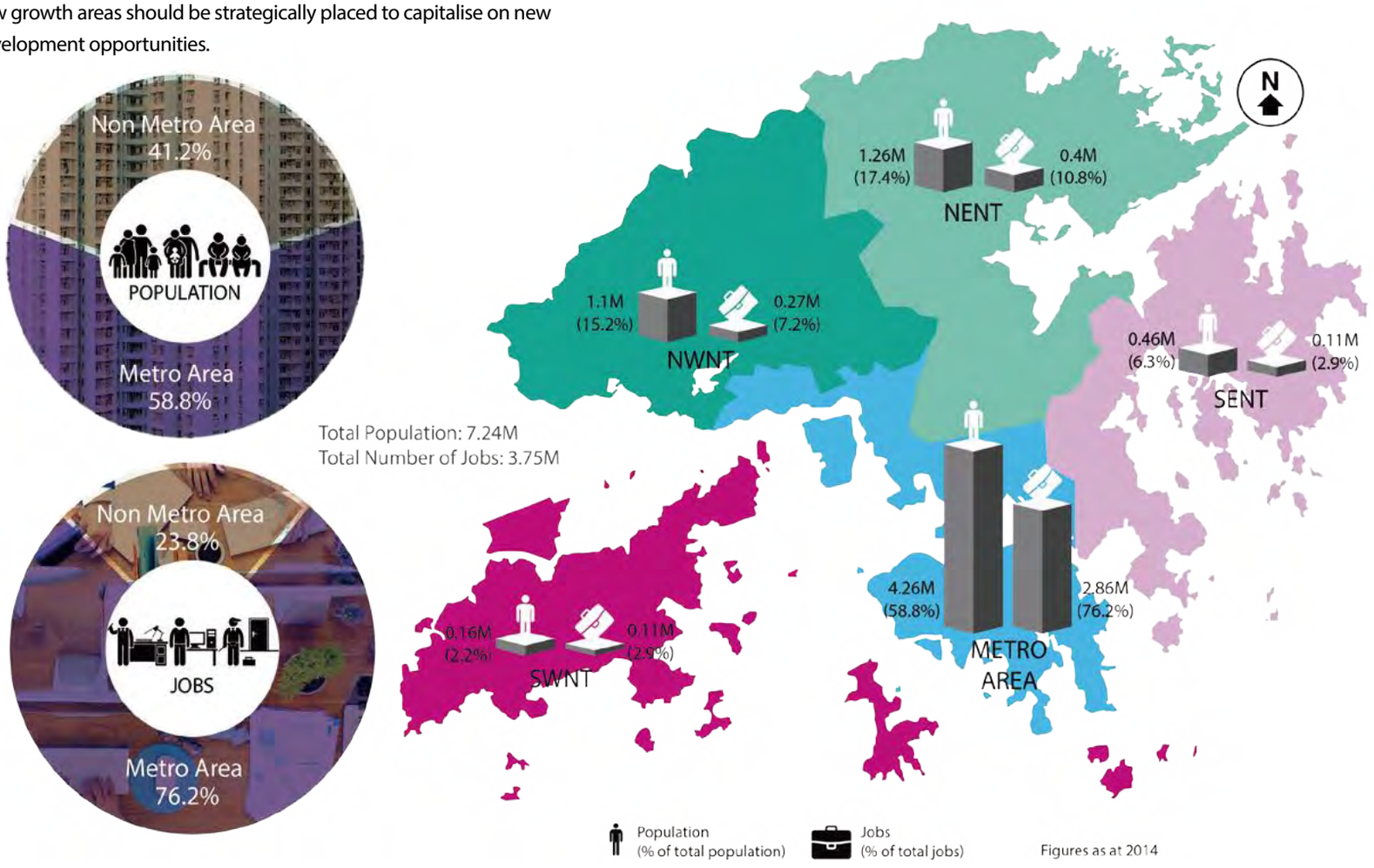
* There may be some discrepancies in the locations of these challenges owing to graphical representation. The plan is indicative only and cannot be used as baseline information for detailed assessment.

> **Imbalance in home-job spatial distribution can be redressed by good land use planning, bringing multiple benefits in terms of transport performance, environmental quality, productivity, quality of life, etc.**

Imbalance in home-job spatial distribution and jobs of a limited range of skills

The New Territories (excluding Tsuen Wan and Kwai Tsing) house about 41% of the population, but provide only 24% of the jobs. The imbalance in the spatial distribution of the population and jobs has resulted in congestion of key commuting corridors, longer home-to-work journeys, and hence more energy consumption, more carbon emissions, less family and leisure time, lower productivity, deterring some people from joining the labour force. Our employment is concentrated in the services sector, in particular the four pillar industries. As such, we should consider creating a diversity of new employment opportunities, pulling more economic activities to areas with limited existing economic activities, creating economic nodes of sufficient scale in new growth areas, and connecting the population to employment centres. Moreover, the new growth areas should be strategically placed to capitalise on new development opportunities.

Fig.14 Spatial Distribution of the Population and Jobs



How can we turn these challenges into opportunities for a better Hong Kong?

A growing and ageing population and a shrinking labour force

Hong Kong has a growing and ageing population and a shrinking labour force, posing substantial challenges to society and the economy.

Meeting land requirement and adopting a much longer-term view

A large amount of developable land is needed to meet the needs of our growing population, our economy, and the aspirations of society to maintain the sustainable development of Hong Kong. The long lead time required for land creation necessitates planning with a long-term vision.

A large quantity of old building stock

Hong Kong has a rapidly ageing building stock in large quantity, posing challenges for urban regeneration.

Imbalance in home-job spatial distribution and jobs with a limited range of skills

The imbalance in spatial distribution of homes and jobs entailing transport, environmental and social problems should be addressed.
Jobs of broader range of skills should also be provided.

Keen competition in the global and regional economy

Economic transformation and new economic opportunities arising from better regional functional integration with the Greater PRD Region and ASEAN member countries, the China (Guangdong) Pilot FTZs, "Belt and Road" initatives, etc should be harnessed.

Providing new transport and other infrastructure

New transport and other infrastructure as well as improvements are essential to support new development. Measures to minimise demand for new transport and other infrastructure (e.g. manage car ownership and use and traffic flow patterns) and side effects (e.g. air and noise pollution, greenhouse gas emission and land intake) should be explored.

Need for enhancing liveability

Enhancing liveability is important to promoting the well-being of the Hong Kong people and to attracting talents and businesses.

Readiness for climate change

Our climate change-readiness should be strengthened through enhanced actions for mitigation, adaptation and resilience.

Innovation and technology and enabling education to increase productivity

Education, innovation and technology are instrumental to increasing productivity amidst shrinking labour force.

Our Aspirations

Our vision and planning goal will drive the strategy and directions of future planning and development of Hong Kong

Our Aspirations

Hong Kong 2030 has undergone an elaborated envisioning and engagement process. It has adopted a long-term vision to strengthen our position as "Asia's World City", first spelt out back in 2000 by the Commission on Strategic Development, which considered that "Hong Kong should not only be a major Chinese city but also could become the most cosmopolitan city in Asia, enjoying a status comparable to that of New York in North America and London in Europe". Hong Kong has been positioning itself as such.

Major benchmarking indexes show that Hong Kong has achieved the status of a leading global city on par with other major cities. However, its performance in liveability stays moderate. There is room for improving liveability while consolidating our global strengths. There should be a stronger focus on better quality of life in our future plan and strengthening our position as a liveable, competitive and sustainable "Asia's World City".

Vision

Our vision is to become a liveable, competitive and sustainable "Asia's World City".

Overarching Planning Goal

Our planning goal is to champion sustainable development with a view to meeting our present and future social, environmental and economic needs and aspirations.

Building Blocks of the Territorial Development Strategy

Three building blocks of the territorial development strategy are proposed for achieving the vision and overarching planning goal. These building blocks are translated into spatial terms in a conceptual spatial framework.

Planning for a Liveable High-density City

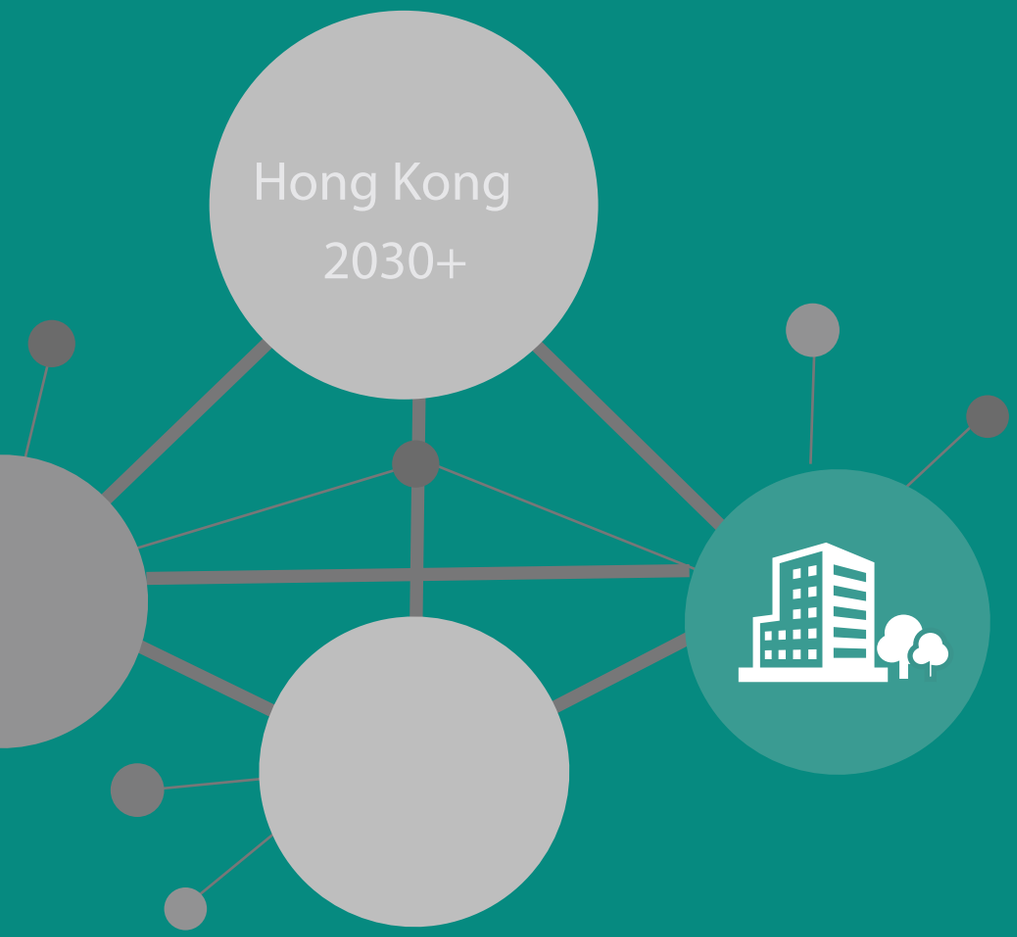
Retrofitting the densely developed urban areas and optimising the new development areas

Embracing New Economic Challenges and Opportunities

Tackling challenges and tapping into new opportunities

Creating Capacity for Sustainable Growth

Creating development capacity while enhancing and regenerating environmental capacity



BUILDING BLOCK 1

Planning for a Liveable High-density City

Liveability concerns elements of a city that contribute to the quality of life and well-being of its people. The compact high-density development model has made Hong Kong a highly convenient, efficient, vibrant and diverse place with extensive green and blue spaces. Yet, there are various side effects. How can we enhance liveability in a high-density setting? The scopes and approaches for densely developed areas and new development areas would vary.

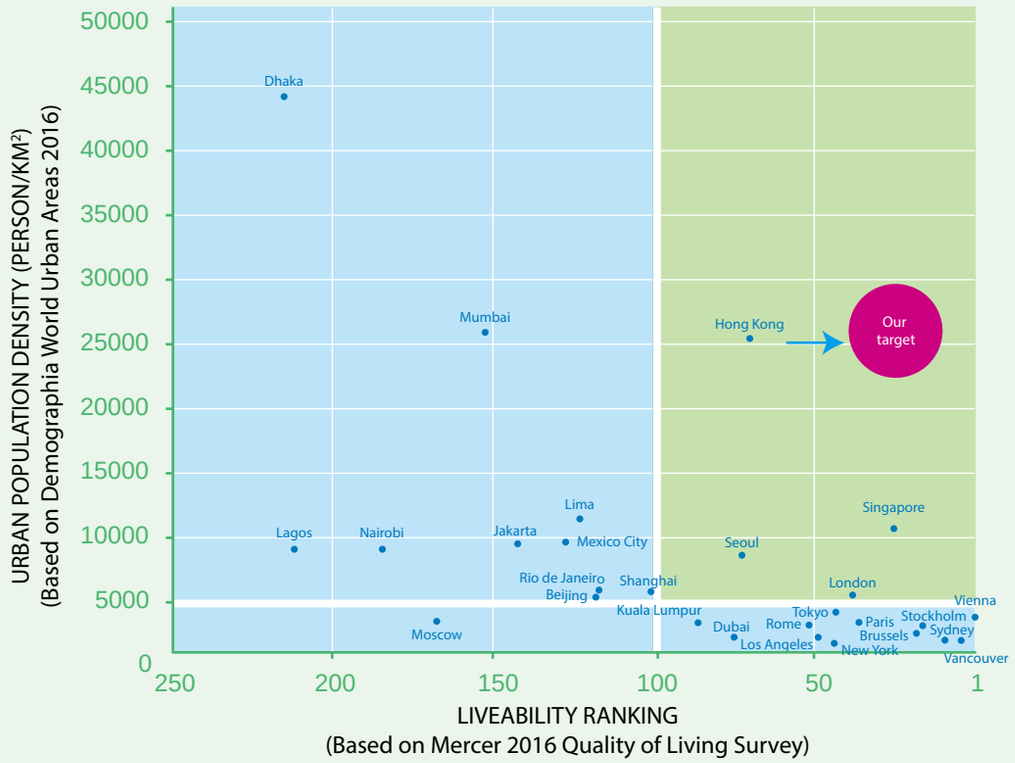
Building Block 1
Planning for a Liveable High-density City

Hong Kong has evolved into a compact high-density city, partly by necessity due to limited developable land and partly by integrated land use-transport-environment planning.

Hong Kong has achieved the status of a leading global city. However, the comparative matrix of urban density and liveability of major cities shows that our performance in liveability remains moderate. There is room for improving liveability and addressing the side-effects of high-density development, such as small home spaces, small working spaces, high costs of accommodation, congestion, street canyons, heat island effects, etc.

There is no precedent of high-density and high-liveability cities. Eight components are proposed for improving our liveability in the high-density city context of Hong Kong. A quality living environment is one that is compact; integrated; unique, diverse and vibrant; healthy; and inclusive and supportive. It is also a place where green-blue assets are appreciated by the public; where the public space can be enjoyed by all; and where our ageing city fabric is well maintained with timely rejuvenation. To this end, a two-pronged planning and urban design approach is required to retrofit densely developed urban areas, and to optimise development in new development areas.

Fig.15 Comparative Liveability Matrix



The comparative liveability index shows that Hong Kong should step up efforts for a higher level of liveability with a view to becoming a leading liveable high-density city.

Data Sources:
Demographia World Urban Areas 12th Annual Edition: 2016:04, Demographia
Mercer 2016 Quality of Living Ranking, Mercer
10 Principles for Liveable High-density Cities: Lessons from Singapore, Urban Land Institute

“As a compact high-density city, Hong Kong is efficient and prudent in its use of resources, but we need to improve its liveability and meet the challenges in this context.”

Building Block 1
Planning for a Liveable High-density City

The approach to enhancing liveability in our compact high-density city includes retrofitting the densely developed urban areas and optimising development in new development areas. We seek to preserve and enhance the positive attributes of high-density development, while addressing and improving the less satisfactory ones.

> **"To achieve sustainable development, we need to retrofit the densely developed urban areas, and optimise development in new development areas."**

Future Outlook of Kwun Tong Town Centre

The retrofitting approach is targeted at improving the conditions of the existing built environment in the densely developed urban areas. This essentially includes rejuvenating obsolete densely developed areas, improving connectivity, urban permeability and the urban climate, and addressing inadequacies in greening, public space and public facilities, etc. These tasks are particularly important as a substantial portion of our population is residing within the old urban areas, which have a large and growing stock of ageing buildings.

Future Outlook of Hung Shui Kiu New Development Area

The optimisation approach involves making the best of our new development areas through prudent planning and design and the effective use of land resources. In comprehensive planning for a larger area, there is greater scope to adopt best practice planning and design concepts, such as compact rail-based development, a good mix of daily convenience, urban living close to nature, and smart, green and resilient districts, etc. With about 1 million residents expected to move into new town extensions/ new development areas, optimising these areas could significantly enhance Hong Kong's liveability.

Building Block 1

Planning for a Liveable High-density City

A Compact City

A compact city is a highly sustainable and efficient form of development*. It provides convenience, reduces unnecessary travels, and prevents urban sprawl. The high concentration of people, goods and services reduces land intake, creates economies of scale, facilitates exchange of information and ideas, spurs innovation and contributes to vibrancy of the city. Hong Kong is successful in this respect.

We propose to continue to underscore a compact development model with railway transportation as the backbone, complemented by other modes of public transport and good pedestrian networks. The crux is to manage density properly, striking an appropriate balance between adequate housing and other land supply through optimisation and ensuring a liveable environment. We seek to promote efficient use of urban spaces by innovative means, compatible development at various levels, and responsive urban design concepts to create a quality living environment.

Key Strategic Directions	Key Actions
Managing density	■ To adopt a two-pronged approach: retrofit the densely developed urban areas and achieve an optimal density in new development areas
Promoting compatible land use mix	■ To promote compatible land use mix through responsive land use planning
Fostering efficient use of urban spaces	■ To unlock development potential through innovative use of land, especially underground spaces
Adopting responsive urban design concepts	■ To use relevant urban design concepts such as building height gradation, density differentials, open spaces and green-blue networks to create a liveable high-density urban environment
Underscoring compact development	■ To underscore transit-oriented, compact development with railway as the backbone of the public transport system

* Compact city development is considered sustainable by the United Nations Rio+20 Conference and in studies such as the London School of Economics Cities's study on "Going Green: How Cities are Leading the Next Economy".

"We will continue underscoring the compact city through a compact transit-oriented development pattern that is sustainable, efficient and cost-effective."

Building Block 1

Planning for a Liveable High-density City

An Integrated City

> **"An integrated city with good connectivity and convenient access to facilities could reduce travel needs and lessen impacts on the environment."**

The city works like an ecosystem. Different components are inter-related, both physically and functionally. They have to be well-connected and integrated for a city to perform well. The notion of "integration" is not only about integrating land use, transport and environmental considerations. It also embraces easy access to work, businesses, public amenities, neighbourhood facilities, recreational opportunities, nature, etc. Central to this notion is to enhance urban mobility and to promote physical and functional integration.

In addition to promoting connectivity by rail, road and waterborne transport, we should also promote smart travel choices and green mobility. We should also focus on the most basic and regular form of travel – walking. We propose to continue adopting an integrated land use-transport-environment approach in planning our city to promote an efficient nexus of connected, walkable, cyclable, accessible and permeable spaces.

Key Strategic Directions	Key Actions
Promoting physical and functional integration	**Connectivity:** ■ To enhance connectivity within the urban areas and with the surrounding rural areas, countryside and harbourfront ■ To support mass transit with better pedestrian and feeder connection for seamless connectivity and better use of mass transit ■ To promote smart travel choices by providing better information to pedestrians and road users **Walkability:** ■ To embrace the concept of walkability in the planning and design of the built environment and pedestrian networks ■ To identify schemes to promote walkable streets **Cyclability:** ■ To foster a "bicycle-friendly" environment in new towns and new development areas through smart and innovative measures **Accessibility:** ■ To pursue the conceptual framework of accessibility to promote easy access to public transport, public amenities, neighbourhood facilities, jobs, recreational opportunities, nature, etc. **Permeability:** ■ To enhance permeability of the urban fabric and promote human-scale and fine-grain street grids

Fig.16 The conceptual framework of accessibility

Building Block 1

Planning for a Liveable High-density City

A Unique, Diverse and Vibrant City

A convenient and efficient place is not enough to make it a good place. Hong Kong people and visitors also love to venture into unique, diverse and vibrant places. We will continue to promote the identity of the city, our unique city characters, diversity and vibrancy and sense of place as a global cosmopolitan city. For example, we will leverage Victoria Harbour as our greatest visitor and local attraction, promote coherent cultural clusters around the harbour, protect the harbour setting, appreciate our urban, rural, countryside and natural characters, our tangible and intangible cultural heritage and round-the-clock urban scenery, etc. We need to promote genuine choice in lifestyles and leisure pursuits, to provide accommodation options, and to retain and attract the broadest range of talents and visitors.

> **"To celebrate diversity and vibrancy is in essence to celebrate the uniqueness, identity and sense of place of Hong Kong."**

Key Strategic Directions

Promoting unique city characters

Key Actions

- To safeguard and promote unique urban characters, including city icons, character streets and districts, as well as the unique urban-rural-countryside-nature continuum through district-wide Urban Design Plans
- To create a vibrant world-class harbour and harbourfront for the people under a comprehensive harbourfront plan, promote coherent cultural clusters around the harbour, enhance the land-water interface under a "water-friendly" culture, and protect the visual setting of the harbour with its surrounding mountain backdrops

Key Strategic Directions

Creating vibrancy

Key Actions

- To encourage compatible use-mix and time-mix through robust design for better synergy
- To promote street vibrancy, inviting streetscapes and good walkability
- To promote cultural diversity, city branding, and building up our soft power

Key Strategic Directions

Embracing diversity

Key Actions

- To conserve heritage buildings and their historic ambience
- To prudently review the existing guidelines on built heritage conservation
- To explore innovative building layouts and designs to cater for changing living, working and leisure space requirements

Building Block 1

Planning for a Liveable High-density City

A Healthy City

The city is our main activity area and is a conducive environment for promoting health and well-being. A healthy city will bring tangible benefits such as improving health, relieving stress, encouraging active ageing, and alleviating the burden on public health services.

We propose to incorporate "active design"* considerations in shaping the built environment to promote physical activities and health through responsive urban design and building design by promoting walking, cycling, exercising and a healthy lifestyle. We propose to rekindle our connection with nature in the city. We propose to strengthen our continued commitment to enhancing biodiversity, promoting environmentally-friendly initiatives, and creating a clean and healthy built environment. To alleviate the urban heat island effect, to improve the urban climate and to respond to climate change, we seek to further incorporate urban climatic and air ventilation considerations in planning and urban design.

*"Active design" is both an approach to and an ethos of promoting physical activity and health through responsive urban design and building design by promoting walking, exercising and recreational pursuits

Key Strategic Directions	Key Actions
Improving the urban climate by incorporating urban climatic and air ventilation considerations	■ To strengthen urban climatic and air ventilation considerations in the planning and design of new development areas and to retrofit the densely developed urban areas having due regard to proposals in the Hong Kong Urban Climatic Planning Recommendation Map ■ To update the current Technical Circular on Air Ventilation Assessment and the relevant Hong Kong Planning Standards and Guidelines (HKPSG)

Key Strategic Directions	Key Actions
Promoting active design	■ To embrace active design in promoting physical activities and health through urban design and building design ■ To appropriately increase open space provision ■ To promote accessibility to recreational facilities (e.g. country parks and sports facilities) ■ To provide a comfortable walking and cycling environment

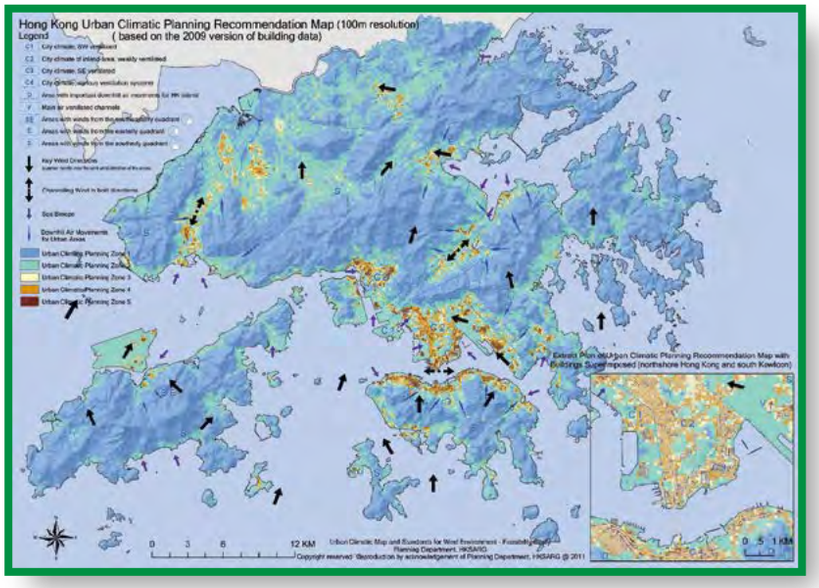


Fig.17 Hong Kong Urban Climatic Planning Recommendation Map

"We need a physical city environment that is conducive to healthy and active lives."

Building Block 1
Planning for a Liveable High-density City
Leveraging Green and Blue Assets

The invaluable green and blue assets are multi-functional components of a sustainable city.

Hong Kong is well endowed with green assets and blue water resources such as country parks, public parks, Victoria Harbour, beaches, rivers, streams, wetlands, reservoirs, etc. These green and blue assets should be enhanced and harnessed.

In a compact city such as Hong Kong, natural assets of green and blue spaces should be leveraged in planning the city to provide a quality living environment. We propose to establish a coherent conceptual framework for a territory-wide green and water space plan with associated key strategic directions and actions. These will help achieve a sustainable living environment for public enjoyment and well-being.

> **"Our green and blue assets should be enhanced for a quality living environment."**

Key Strategic Directions

Enriching existing green-blue assets

Key Actions

- To develop better country park access and facilities and to promote greater use and appreciation as appropriate
- To designate/ upgrade flagship parks, open spaces and public spaces
- To activate the harbourfront, to revitalise nullahs/river channels, and to explore the recreational eco-use and climatic-resilient use of coastal waters and non-drinking water reservoirs
- To integrate land development with blue spaces and enhance the land-water interface

Key Strategic Directions

Reinventing the "Green and Blue System" networks

Key Actions

- To form a "Green and Blue System" network in the form of parks, countryside, riverfronts, waterfronts, wetland, green and blue infrastructure, and other water bodies as the core and to be supplemented by eco-corridors

Key Strategic Directions

Cultivating community green networks

Key Actions

- To identify projects for community gardens, gardens in home/ office/ schools and urban farms, and encourage communal open spaces in developments at multiple scales and levels
- To identify urban farming opportunities and to review the provision and guidelines for urban farming

Key Strategic Directions

Developing an urban forestry strategy

Key Actions

- To develop and implement an urban forestry strategy and management plan
- To develop a street planting improvement plan

Key Strategic Directions

Promoting a sustainable built environment

Key Actions

- To consider green and blue infrastructure for new development areas, and green building design and greening as integral part of the structures of all new government projects
- To explore the feasibility of introducing a "green index"







Fig. 18 Conceptual Spatial Framework for Green and Blue Space Planning




Building Block 1
Planning for a Liveable High-density City
Reinventing Public Space and Enhancing Public Facilities

The public space embraces a whole spectrum of spaces from "semi-public" to "public" spaces. It could be "spaces between buildings" (streets, pavements, landscaped decks, footbridges, squares, precincts, etc), parks, podiums, rooftops, country parks, etc.

In a high-density urban living environment such as Hong Kong, there is limited scope for expanding the per capita private space. Public space plays a pivotal role in uplifting our liveability, be it as a meeting place, a place for exercise/ respite or a place for sprouting creative ideas. Good public spaces are effectively extensions of our personal construct of space – "urban commons" that are shared by all, forming part and parcel of the urban experience. There should also be synergy between public and private spaces. Hence, we call for a holistic and open mindset in construing the public space, such as a review of the existing policies, guidelines, functions, designs, provisions and management of public spaces. The Government could play an enabling role in facilitating collaborative efforts and shared contribution in making our public space not only functional, but also welcoming for everyone to enjoy.

There is also a need to improve certain government, institution and community (GIC) facility provisions, for instance to improve or redevelop substandard facilities (e.g. substandard schools), to enhance the space provision (e.g. kindergartens), and to cater for changing demographics (e.g. neighbourhood elderly care facilities), all helping uplift the liveability of the city. As a further step forward, we shall seek to expand our public space when opportunities arise in the course of revitalisation/redevelopment in the densely populated urban core, and set aside more spaces for public space in new development areas.

Key Strategic Directions	Key Actions
Reinventing the public space	■ To conduct a review of the existing policies, guidance, functions, quality, designs, accessibility, provision and management of public space including public parks and public streets, with a view to embracing public space as a key element of providing a quality living environment
Reviewing open space and GIC facility provisions	■ To explore the scope for appropriately increasing the open space per capita standard under the HKPSG ■ To appropriately review the planning standards for relevant GIC facilities under the HKPSG

> **"The public space is an extension of our personal space and therefore should be functional, welcoming and shared by all."**

Kwun Tong Promenade

Building Block 1
Planning for a Liveable High-density City
Rejuvenating the Urban Fabric

> **"Many parts of the dense urban core are in need of rejuvenation, which will be a challenging task."**

Developed cities such as Hong Kong need to rejuvenate to provide quality living environments. Given the enormous magnitude of ageing building stock and the current modest scale of urban renewal in Hong Kong, it is important to step up the rejuvenation of dilapidated urban areas, the majority of which are in the densely-built urban core. It is challenging to redevelop such a large bulk of rapidly ageing building stock. Redevelopments will continue to require private initiatives. However, the Government has to step up urban regeneration efforts and policies to rejuvenate the extensive old urban fabric to improve the living environment.

Key Strategic Directions

Rejuvenating the urban fabric

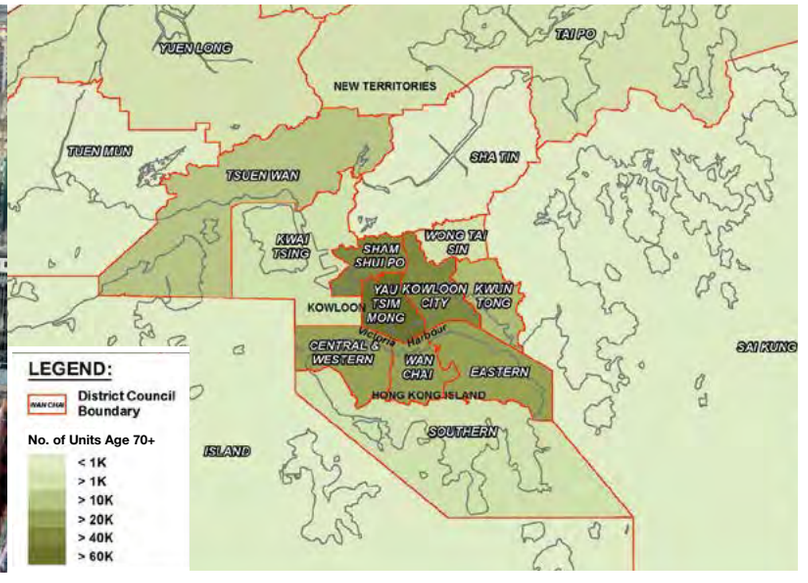
Key Actions

- To boost building management and maintenance initiatives to extend the life span of buildings
- To facilitate redevelopment, rehabilitation, revitalisation and preservation initiatives on both project and area bases
- To seek urban improvements while respecting the neighbourhood characteristics and bonding neighbourhoods through planning, urban design and other means

326,000
private housing units
aged 70 or above by 2046

Nearly **300 times** of the building stock of the same age in 2015

Fig.19 Private Housing Units Aged 70 or Above By 2046 (by District Councils)



Building Block 1
Planning for a Liveable High-density City
An Inclusive and Supportive City

The city is a place for everyone. Socially inclusive planning and design essentially aims to cater for changing requirements in an ageing society, create a family-friendly built environment, and support youth development.

Looking into the future, we propose to promote a socially inclusive and supportive environment for all ages. This includes responding to housing needs and aspirations, providing a variety of housing choices in the public and private sectors, promoting concepts of universal design*, age-friendliness, active ageing and "ageing in place" in the planning and design of the built environment, and providing a supportive environment for families (e.g. parenting, child care and inter-generational support) and nurturing the youth (e.g. joyful learning).

"The built environment has to take care of the needs of all ages. An inclusive plan is a plan to be shared."

Key Strategic Directions	Key Actions
Strengthening relevant Government policies to support all ages	■ To provide and broaden education, skill training and youth development facilities for the youth ■ To provide employment opportunities with a range of skills for the youth ■ To provide premises to nurture young entrepreneurship (e.g. information and technology development, incubators, accelerators, co-working spaces, creative markets, design markets, etc) ■ To facilitate raising families ■ To review the relevant planning standards of the elderly facilities provision under the HKPSG ■ To promote ageing in place
Addressing the housing needs of all ages	■ To continue adopting universal design in public housing to cater for the needs of the elderly ■ To promote universal design in private housing units (other than the common areas) in building design guidelines to promote ageing in place ■ To encourage a variety of housing choices to be provided by the public and private sectors to enrich options available
Promoting age-friendly public space in the built environment	■ To identify areas for age-friendly public space improvement ■ To encourage universal design in government facilities and in public spaces
Providing a supportive environment for families	■ To increase child care facilities and identify conveniently located sites for child care services ■ To enhance pre-school facilities, in line with free and quality kindergarten education policy

* "Universal design" refers to the design approach to a universally accessible standard in which all products, environments and communications will allow for access by the widest spectrum of people in our communities regardless of diversity, age or ability. Focus should be placed on the design of the private residential units to allow the elderly to live independently and safely (e.g. accessibility of spaces within residential flats by wheelchairs).

BUILDING BLOCK 2

Embracing New Economic Challenges and Opportunities

Hong Kong needs to move up the value chain and build up the land and space supplies required to enhance economic capacity and resilience to cope with unforeseen economic opportunities and challenges.

Building Block 2
Embracing New Economic Challenges and Opportunities

The GDP growth in Hong Kong has been relatively modest in recent years, while some neighbouring large cities are developing quickly.

With Hong Kong's competitive advantages in advanced producer and professional services and the Mainland's vigorous long-term economic policy initiatives, such as Free Trade Zones and "Belt and Road", Hong Kong has strong potentials to position itself as the financial and business hub of the Greater PRD Region and Asia, and to perform the role of connecting between the Mainland and the world in the flow of capital investment, trade and services.

Although the four pillar industries continue to underpin the bulk of our economy and much of our employment, there are emerging industries leveraging the global megatrends and in which Hong Kong enjoys clear advantages over its regional counterparts. We propose five planning aspects for Hong Kong to embrace the economic challenges and opportunities:

(i) adequate supply of land and space for addressing existing shortfalls and future demand of economic land use;

(ii) a diversity of economic sectors and quality jobs with a range of skills;

(iii) promoting innovation, technology and collaboration;

(iv) sufficient and suitable human capital; and

(v) adequate and timely provision of supporting infrastructure.

> **"To equip Hong Kong to meet economic challenges and to tap into new opportunities to prosper, we need to be responsive to global megatrends, to move up the value chain, to create quality jobs, and to encourage collaboration between economic sectors."**

Central business district

Building Block 2

Embracing New Economic Challenges and Opportunities

Adequate Land and Space for Economic Growth

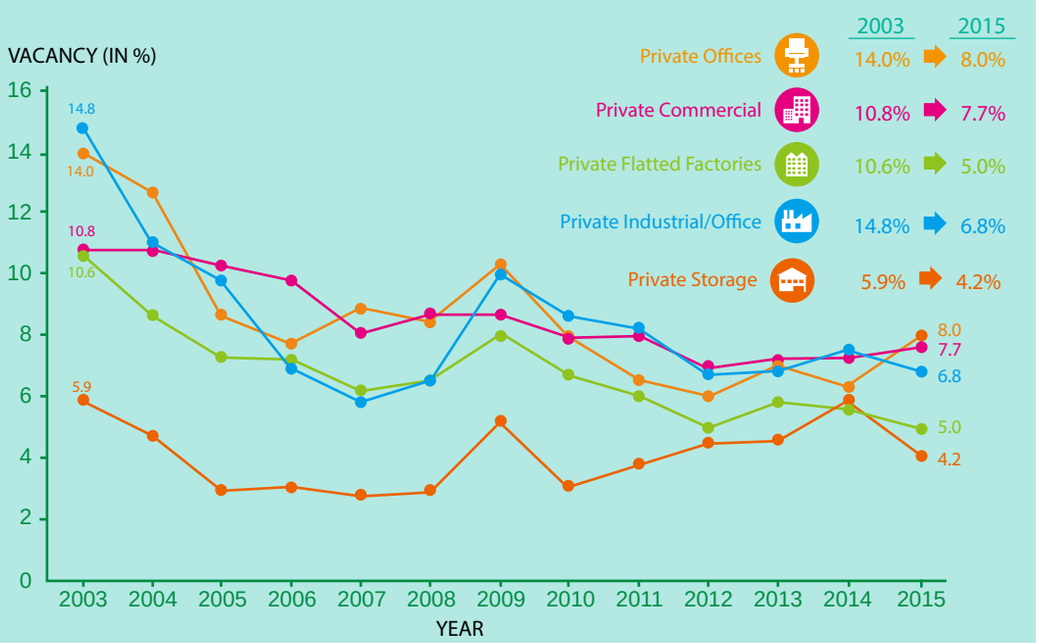
Providing sufficient developable land and space is the foremost challenge to our economy. We need to provide land to meet the shortfall and future demand from various economic sectors to sustain economic development, to facilitate trade, investment and services for the region with Hong Kong as a base, to facilitate new business entry to Hong Kong, and to provide new employment opportunities. In particular, we seek to cater for the continued demand for office space, especially premier Grade A offices to sustain Hong Kong as a global financial centre, regional business hub and choice location for corporate headquarters.

For industrial floor space, we seek to address shortfalls from the short to long term, notably to reserve suitable sites to cater for demand for warehousing, modern logistics and modern industries, to facilitate the upgrade of the industrial sector, and to support the new "re-industrialisation" initiative. For existing industrial premises that are no longer suitable for industrial use, consideration should be given to promoting their transformation and revitalisation to other uses. For tourism, sufficient land and space should be provided to allow the industry to pursue a balanced, healthy and long-term development, and to move towards diversified and quality-driven high value-added services, with a view to attracting more high-spending overnight visitors.

We should cater for the land and space requirements for economic and business activities using Hong Kong as a base to serve the region. Given the increasingly close economic interactions within the region, Hong Kong could look beyond its own territory to expand its economic hinterland and create new platforms for economic growth and business opportunities. For example, decanting lower valued-added economic functions, such as back offices, to lower-cost locations in the region would release more land and space in Hong Kong to develop higher valued-added industries.

> "To ensure sustainable growth of our economy, we need to provide adequate land and space, not only to address shortfalls but also to meet future demand."

Fig. 20 Vacancy Rate Across Different Property Types



Building Block 2

Embracing New Economic Challenges and Opportunities

Adequate Land and Space for Economic Growth (cont'd)

Key Strategic Directions

Increasing development capacity for sustaining economic growth and broadening the economic base

Key Actions

- To increase land to support the pillar and emerging industries, in particular for premier Grade A offices
- To retain and suitably enhance the current stock of industrial floor space
- To provide land for modern industries (e.g. smart production and advanced manufacturing), for innovation and technology industries, and for supporting the new "re-industrialisation" initiative
- To increase the supply of suitable workspaces for creative industries and start-ups (e.g. co-working spaces, adaptive reuse of industrial buildings, vacant government premises, etc)
- To provide new tourist attractions, more high-grade hotels, more exhibition and convention facilities, and more spaces/venues for diversified travel experiences for visitors, capitalising on the future strategic transport infrastructure (e.g. the Three-Runway System at the Hong Kong International Airport, the Hong Kong Section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link and the Hong Kong-Zhuhai-Macao Bridge)
- To encourage regional cooperation on tourism development, taking into account possible long-term changes in visitor structure and characteristics
- To create an adequate land reserve to increase economic capacity and resilience

Major Economic Land Uses

Grade A Offices
(including CBD and Non-CBD Grade A Offices)

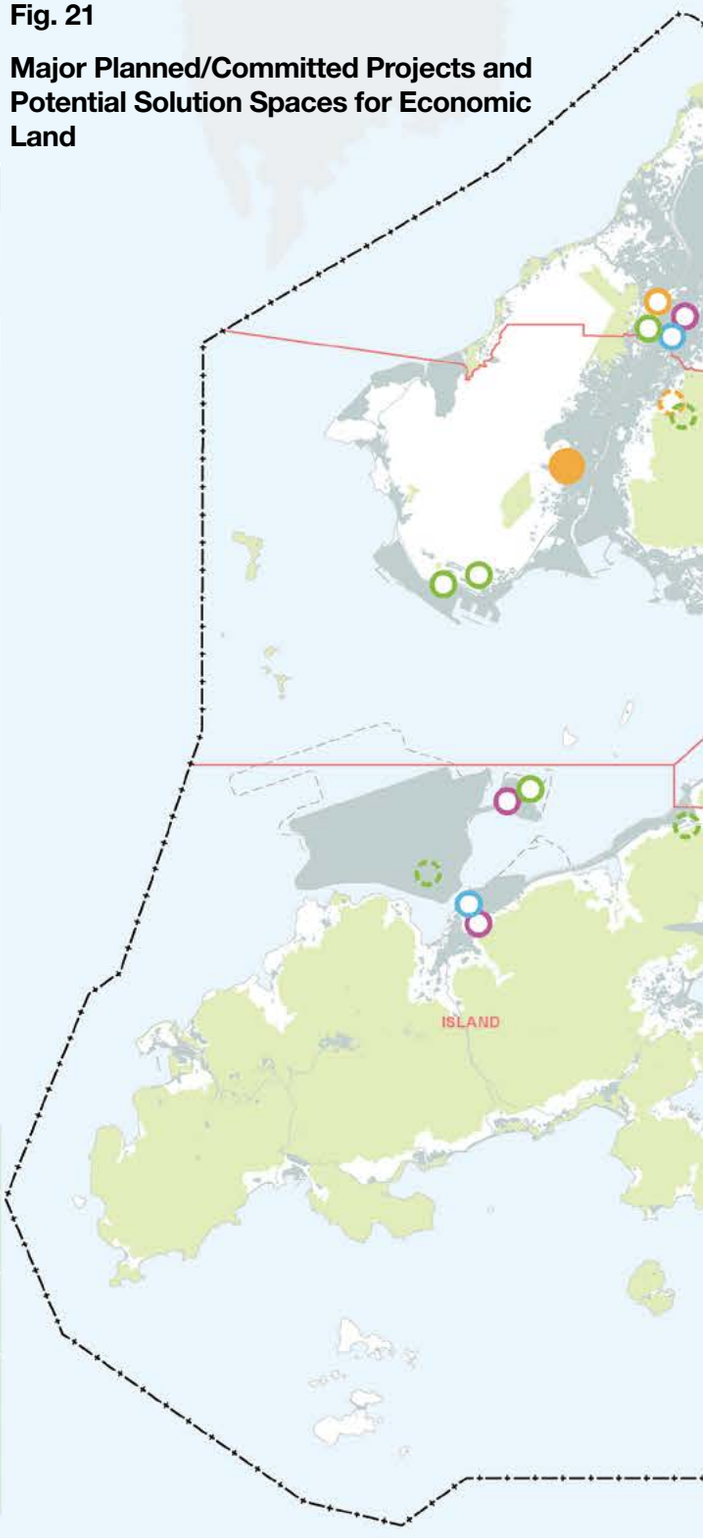
General Business
(including non-Grade A offices, and business activities involving no industrial production and having flexible floorspace requirements)

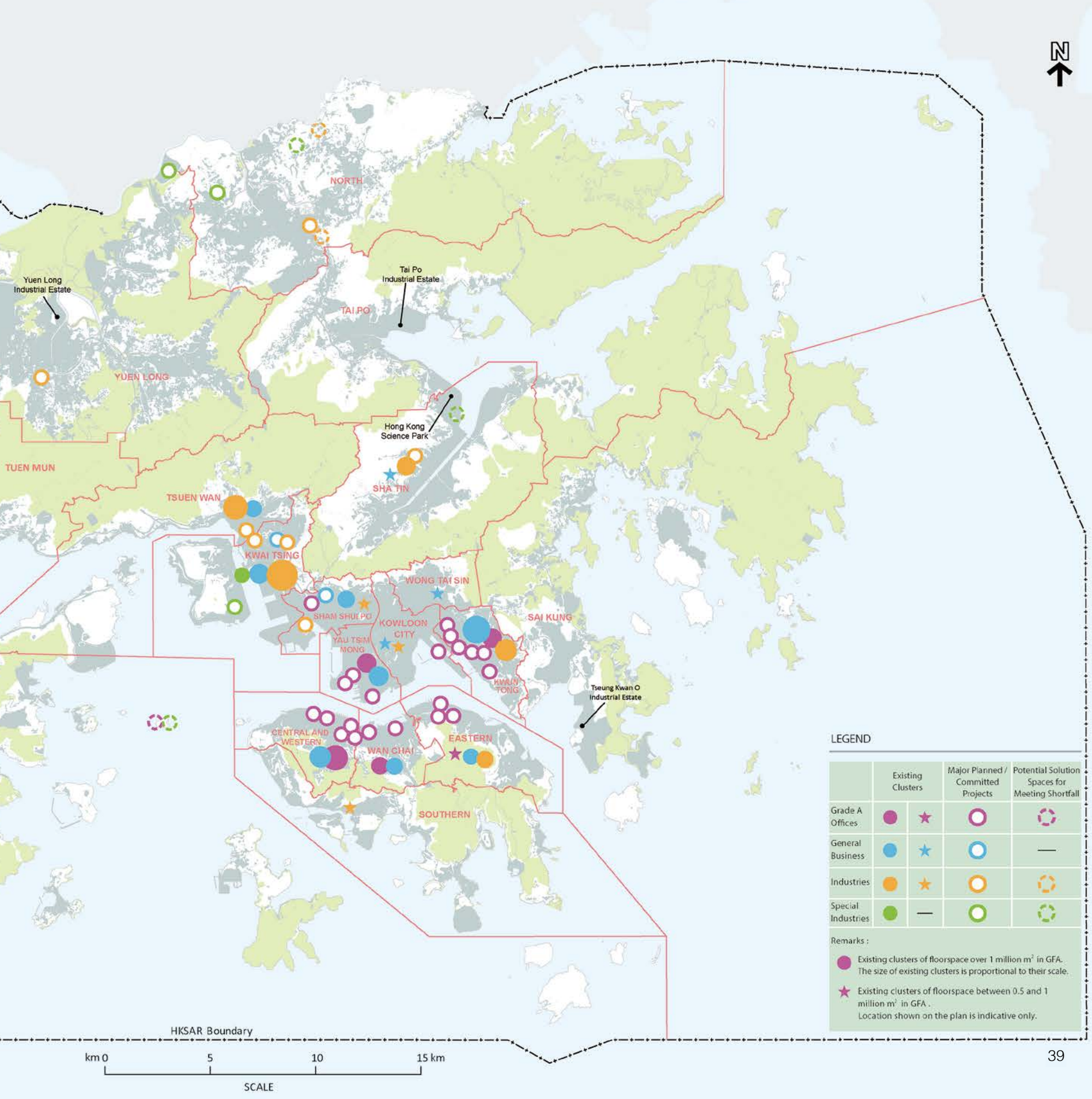
Industries
(including manufacturing, general logistics/warehousing and other industrial activities but not "Special Industries")

Special Industries
(including industries that have unique locational or operational requirements because of specific environmental or other considerations. They usually require purpose-built premises of more rigid specifications. Industrial estates, science parks, high-tier data centres, modern logistics and special types of research and development and testing and certification are in this category)

Fig. 21

Major Planned/Committed Projects and Potential Solution Spaces for Economic Land




N
NORTH
Yuen Long Industrial Estate
Tai Po Industrial Estate
TAI PO
YUEN LONG
Hong Kong Science Park
TUEN MUN
SHA TIN
TSUEN WAN
KWAI TSING
WONG TAI SIN
SHAM SHUI PO
KOWLOON CITY
SAI KUNG
YAU TSIM MONG
KWUN TONG
Tseung Kwan O Industrial Estate
CENTRAL AND WESTERN
WAN CHAI
EASTERN
SOUTHERN
LEGEND
Existing Clusters
Major Planned / Committed Projects
Potential Solution Spaces for Meeting Shortfall
Grade A Offices
General Business
Industries
Special Industries
Remarks :
Existing clusters of floorspace over 1 million m² in GFA. The size of existing clusters is proportional to their scale.
Existing clusters of floorspace between 0.5 and 1 million m² in GFA .
Location shown on the plan is indicative only.
HKSAR Boundary
km 0
5
10
15 km
SCALE

Building Block 2

Embracing New Economic Challenges and Opportunities

A Diversity of Economic Sectors and Quality Jobs of a Range of Skills

A key challenge for the future is how we can better facilitate the development of various sectors and industries and the creation of more quality jobs and jobs requiring a range of skills. We seek to create new platforms and opportunities by planning for a variety of economic land uses at suitable locations and to support the creation of synergy among relevant industries.

> **"To enhance economic resilience and adapt to the trend towards a knowledge-based economy, we should provide favourable conditions to promote niche sectors and emerging industries while strengthening the pillar industries."**

Key Strategic Directions

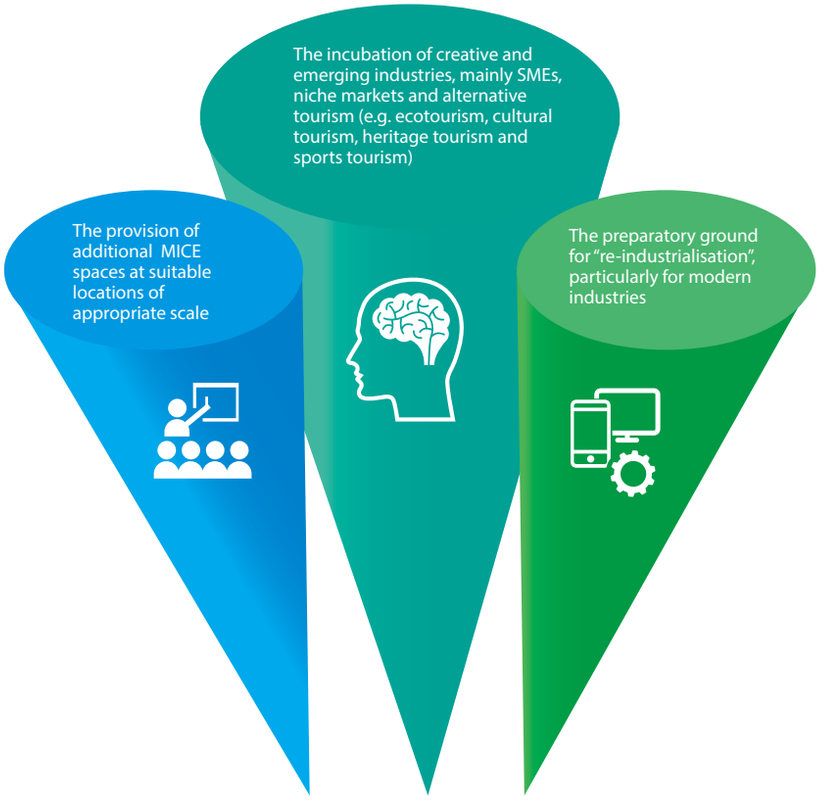
Providing favourable conditions and policy support for pillar and emerging industries

Key Actions

- To strengthen existing pillar industries, to support modern industries (e.g. advanced manufacturing), and to broaden our economic base through emerging industries
- To work with the Innovation and Technology Bureau in taking forward the initiative of upgrading and expanding the existing science park and industrial estates and developing science park/industrial estate use near the future Liantang/Heung Yuen Wai Boundary Control Point
- To work with the Commerce and Economic Development Bureau to provide more MICE spaces
- To work with the Food and Health Bureau/Agriculture, Fisheries and Conservation Department in taking forward the Agricultural Park initiative and in conducting a review of the existing farmland with a view to preserving active farmland and fallow farmland with good agricultural rehabilitation potential

We have to be robust and flexible in responding to fast-growing economic trends, such as the development of financial technology (FinTech), smart production and services, the global supply chain, e-commerce, green technology, etc. We have to cater for emerging sectors such as innovation, technology and modern industries. We have to maintain our competitive edge by holding meetings, incentive travels, conventions and exhibitions (MICE) events and activities, and to attract affluent travellers. There is a global trend of increasing free independent travellers who generally look for unique experiences and living culture. We also have to attract more overnight visitors, in particular high-spending business travellers and visitors. We support the New Agriculture Policy, which promotes the modernisation and sustainable development of local agriculture.

In doing so, we also have to cater for:



Building Block 2

Embracing New Economic Challenges and Opportunities

Innovation, Technology and Collaboration

"Hong Kong has been lagging behind in the development of innovation and technology. We should offer platforms and conditions conducive to promoting innovation, technology and collaboration between economic sectors."

Innovation and technology is envisaged to be the key driver of the global economy in the years ahead. As such, we shall further promote the development of innovation and technology to create new momentum for economic growth and to spur urban innovations. For example, we have to provide suitable land and space for industries adopting advanced technology, and a suitable avenue for the new wave of entrepreneurship in the form of business start-ups, which boldly apply new technologies and open up new markets. We also have to consider adopting smart, green and resilient measures for the production processes and the delivery of products and services.

Moving towards a knowledge-based economy, we need to cater for the developmental needs of universities, higher education and training institutions, science and technology parks, incubation and start-up spaces, and innovation and technology companies. It is vitally important to establish a close collaboration among the Government, relevant sectors/industries, academia and research institutes to ensure collaboration across the sectors. We also need to create the necessary tech-ecosystem and the business linkages of start-ups, the vertical integration of industries and the supply chain of particular industries to ensure that we have the right platforms and conditions to sustain their growth.

Key Strategic Directions

Promoting innovation, technology and collaboration

Key Actions

- To consolidate and foster a knowledge and technology corridor in the eastern part of Hong Kong and to develop a new anchor site for science park/industrial estate use near the future Liantang/Heung Yuen Wai Boundary Control Point
- To provide suitable land and space to cater for the development needs of universities, higher education and training institutions, science and technology parks, incubation and start-up spaces, and innovation and technology companies
- To adopt appropriate planning measures to promote and facilitate a tech-ecosystem, entrepreneurship and business start-ups, and collaboration

Cyberport

Building Block 2

Embracing New Economic Challenges and Opportunities

Sufficient and Suitable Human Capital

Competition for talents is fierce amongst world cities, particularly for the highly mobile financial and professional services, innovation and technology, and creative industries. Looking into the future, Hong Kong needs to maintain its competitiveness by providing an environment conducive to retaining and nurturing home-grown talents, to attracting overseas talents in support of the emerging industries and to unleashing the potential of the existing labour force. This issue is becoming more relevant given our declining labour force due to an ageing population.

Education and training is important for increasing productivity and for coping with the new modes of economic production and services. This will necessitate a broader range of education and training facilities (e.g. science, technology, engineering and mathematics (STEM)) tailored for the finance, business, technology, innovation, design, aviation, tourism and other sectors.

Fig.22 Expat Explorer Ranking of 45 Popular Destinations (extract)

Destination	Overall Rank	Ranks of Specific Aspects		
		Economics	Experience	Family
Hong Kong	13	19	12	18
Singapore	1	2	4	3
Taiwan	14	24	7	15
Thailand	24	37	10	17

Source: Global Report on Expat Explorer – Achieving Ambitions Abroad, HSBC 2016

We need to establish world-class education facilities to build up a pool of talents and to attract overseas investors to Hong Kong. We also need to provide adequate supporting infrastructure, such as specialised or incubation workspaces (e.g. science and technology parks) and suitable accommodation (e.g. co-working spaces) to complement other policy initiatives to nurture and retain talents.

> **"In face of global competition for talents, we need to provide relevant education and training facilities and the right conditions to nurture, attract and retain valuable human resources and talents."**

Key Strategic Directions

Nurturing and attracting talents

Key Actions

- To provide/reserve the appropriate land to develop a greater and broader range of education/training facilities, including world class teaching facilities, and to upgrade old school premises
- To improve the liveability of Hong Kong in a holistic and comprehensive manner (e.g. by improving environmental quality)
- To offer diverse lifestyles and choices in supporting facilities (e.g. international schools, accommodation, and an efficient and diverse network of commuting options)
- To consider facilitating the provision of government premises and partnerships with private enterprises and NGOs to support and encourage start-ups
- To adopt planning measures to tie in with the five-pronged strategy proposed by the Steering Committee on Population Policy, in particular those for unleashing the potential of local labour force, enhancing the quality of our home-grown talents and attracting talent from outside

Building Block 2

Embracing New Economic Challenges and Opportunities

Adequate and Timely Provision of Supporting Infrastructure

"Increasing global and regional integration calls for better rail, road and air connectivity and infrastructure support. Specific sectors require special facilities to suit their needs."

Infrastructural support is key to the success of any economy. To support economic growth and increase functional integration with other cities in the region and the world, we need to improve the efficiency of the city, including by transport connectivity (e.g. rail, road and air connectivity), Information and Communications Technology (ICT) enhancement, and infrastructure support (e.g. parking for commercial vehicles, and public transport for tourist attractions and cruise terminal).

Besides the provision of new infrastructure, we also need to prudently review and enhance and/or regenerate the capacities of the existing supporting infrastructure for our pillar and emerging industries (e.g. broadening the location choice for offices and businesses).

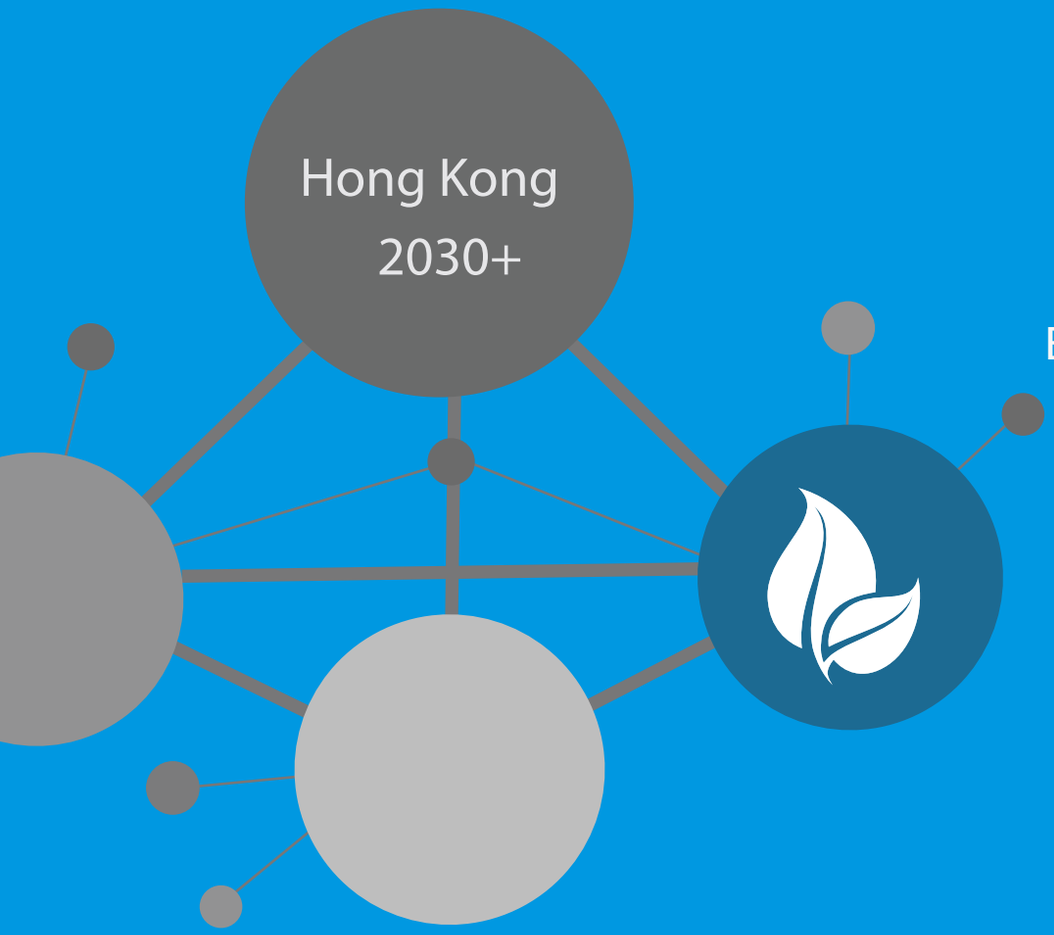
Key Strategic Directions

Providing adequate supporting infrastructure

Key Actions

- To further improve the efficiency and functional and physical connectivity of our city
- To closely monitor the capacities of boundary control and terminal facilities
- To strengthen the public transport of tourist attractions
- To better utilise ICT and free Wi-Fi services including those for helping businesses and tourists

Hong Kong International Airport



BUILDING BLOCK 3

Creating Capacity for Sustainable Growth

Sustaining the social and economic development of Hong Kong in the years ahead requires the supply of developable land and space, which has been lagging behind in the last decade. We seek to create development capacity, and at the same time, to enhance our environmental capacity for the sustainable growth of Hong Kong.

Building Block 3

Creating Capacity for Sustainable Growth

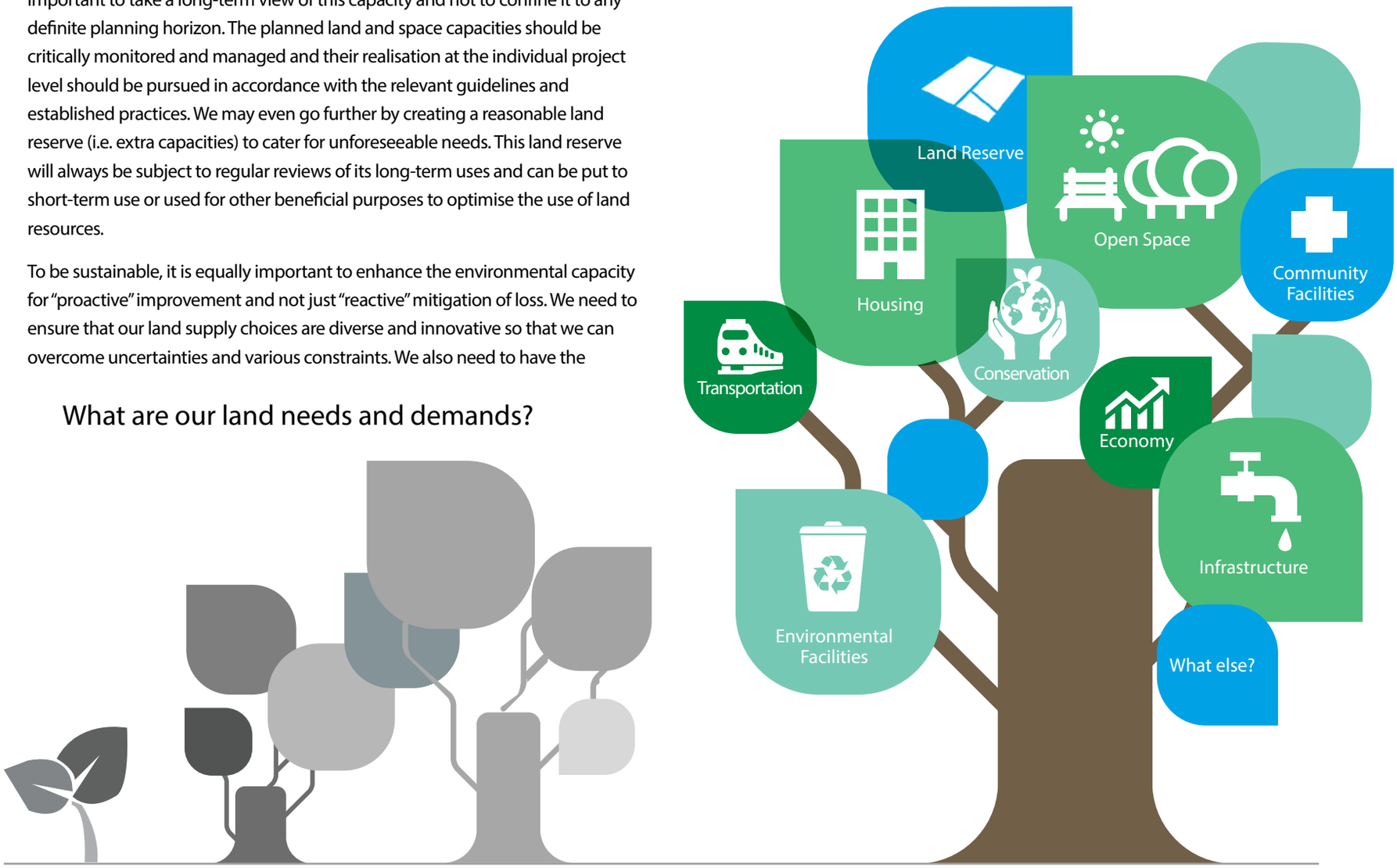
Environmental capacity is important to promoting sustainable development and climate change-readiness. It refers to the ability of the physical environment to sustain human activities and biodiversity. Given finite natural resources, it is important not only to ensure that developments do not bring any unacceptable impact on the environment but also to consider how the environment can be enhanced in general.

In the light of the current shortage and anticipated needs and demands, Hong Kong has to increase its capacity of developable land, transport and infrastructure provision, and to make this capacity available in good time. To be resilient, it is important to take a long-term view of this capacity and not to confine it to any definite planning horizon. The planned land and space capacities should be critically monitored and managed and their realisation at the individual project level should be pursued in accordance with the relevant guidelines and established practices. We may even go further by creating a reasonable land reserve (i.e. extra capacities) to cater for unforeseeable needs. This land reserve will always be subject to regular reviews of its long-term uses and can be put to short-term use or used for other beneficial purposes to optimise the use of land resources.

To be sustainable, it is equally important to enhance the environmental capacity for "proactive" improvement and not just "reactive" mitigation of loss. We need to ensure that our land supply choices are diverse and innovative so that we can overcome uncertainties and various constraints. We also need to have the necessary capital investments, innovation, manpower resources, and construction industry support to deliver the land and infrastructure. We need a plan that is balanced, adaptive and robust.

"We need adequate and timely creation of land and space to meet existing shortfalls and anticipated demands, and a capacity creating strategy that is sustainable, diverse, innovative and resilient."

What are our land needs and demands?



Building Block 3

Creating Capacity for Sustainable Growth

Ballpark Estimates of Long-term Land Requirements

The purpose of creating capacity is to ensure adequate resources to cater for development needs and to plan ahead based on a shared vision and some indicators of future land requirements. We have endeavoured to stocktake the potential long-term land requirement for meeting Hong Kong's social, economic and environmental needs. Creating capacity is important at the strategic planning level. For planning at the individual project level, the actual build up of development need will be taken into account. As the future will only become clearer as we approach it, the crux is to keep monitoring these estimates and adjusting the pace and quantum of the planned developments as we go along.

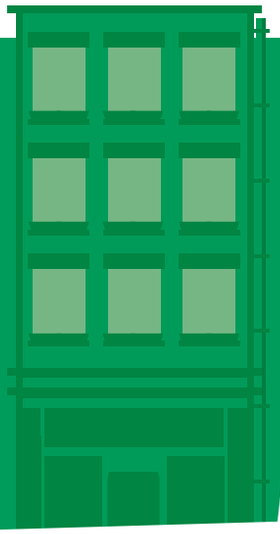
> **"The only certainty about the distant future is uncertainty and change. We therefore need to stocktake and to plan ahead."**

Housing

Housing land requirement takes into account:

- New domestic household growth
- Existing inadequately housed households
- Households affected by redevelopment
- Miscellaneous demand (e.g. non-local students and buyers)
- Natural vacancy

Need from redevelopment is expected to progressively take up a larger share because of rapid ageing of building stock and decantation needs.



Economic Uses

Economic land requirements are obtained by adopting an econometric model to project five broad types of economic uses:

- CBD Grade A Offices
- Non-CBD Grade A Offices
- General Business
- Industries
- Special Industries*

Additional economic land is required to meet specific economic initiatives such as science/R&D parks and industrial estates.

* Special Industries include industries that have unique locational or operational requirements because of environmental or other considerations requiring purpose-built premises with more rigid specifications.

GIC , Open Space and Transport Facilities

A range of government, institution or community (GIC) facilities (including land-extensive environmental infrastructure such as sewage treatment works and waste management facilities), open space and transportation facilities are required to cater for the operation of the city and the livelihood needs of our people.

The current level of provision in existing and planned communities, shortages and estimates from relevant bureaux and departments on major specialised facilities are taken into account when deriving a ballpark estimate.

As a ballpark estimate based on the best available information, the total new land requirement from now into the long term (beyond 2040) would be a minimum of about 4,800 ha. Discounting a supply of about 3,600 ha from the committed and planned projects (which are expected to be fully materialised around the mid-2030s), the outstanding requirement would be **more than 1,200 ha**. This figure may even need to be adjusted upwards because the uses included in the assessment are not exhaustive. As such, new strategic growth areas will need to be identified and planned in a timely manner to address the shortfall.

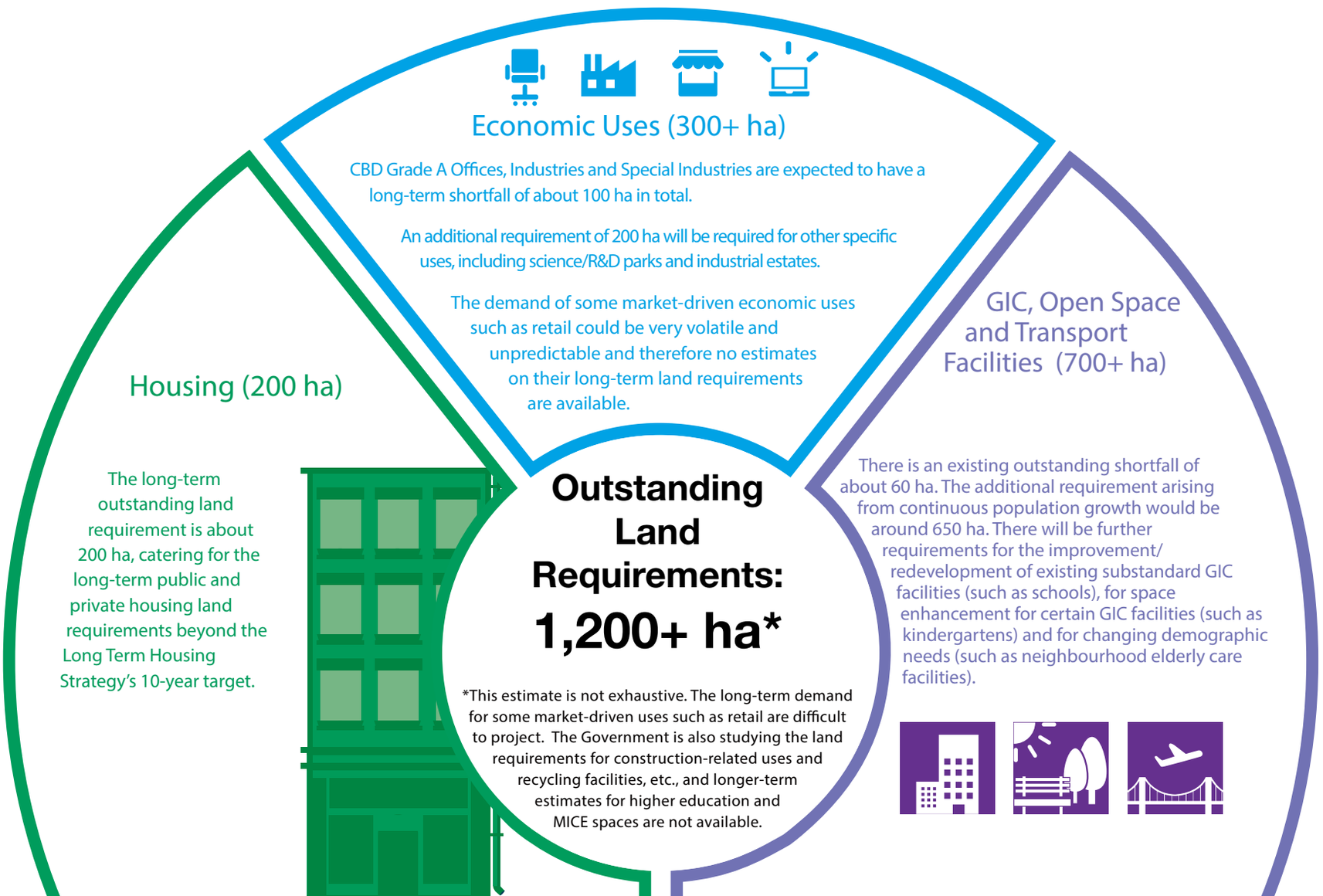
> **"New strategic growth areas need to be planned to meet the estimated long-term outstanding land requirement of more than 1,200 ha."**

Total new land requirement: 4,800+ ha

Total land supply from committed and planned projects: **3,600 ha**

Major projects include:

- Kai Tak Development
- Kwu Tung North New Development Area (NDA)
- Fanling North NDA
- Hung Shui Kiu NDA
- Yuen Long South Development
- Kam Tin South Development Phase 1
- Tung Chung New Town Extension



Building Block 3

Creating Capacity for Sustainable Growth

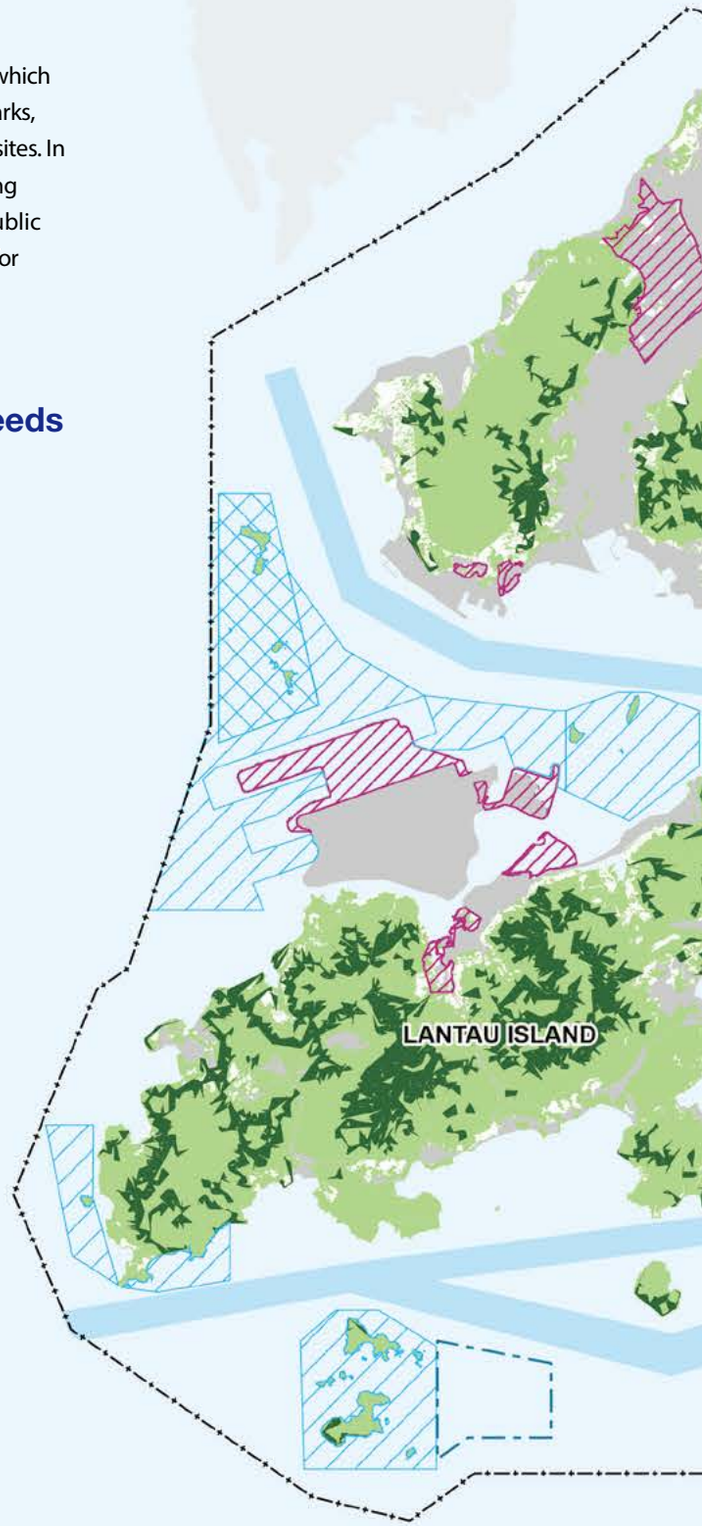
Creating Development Capacity

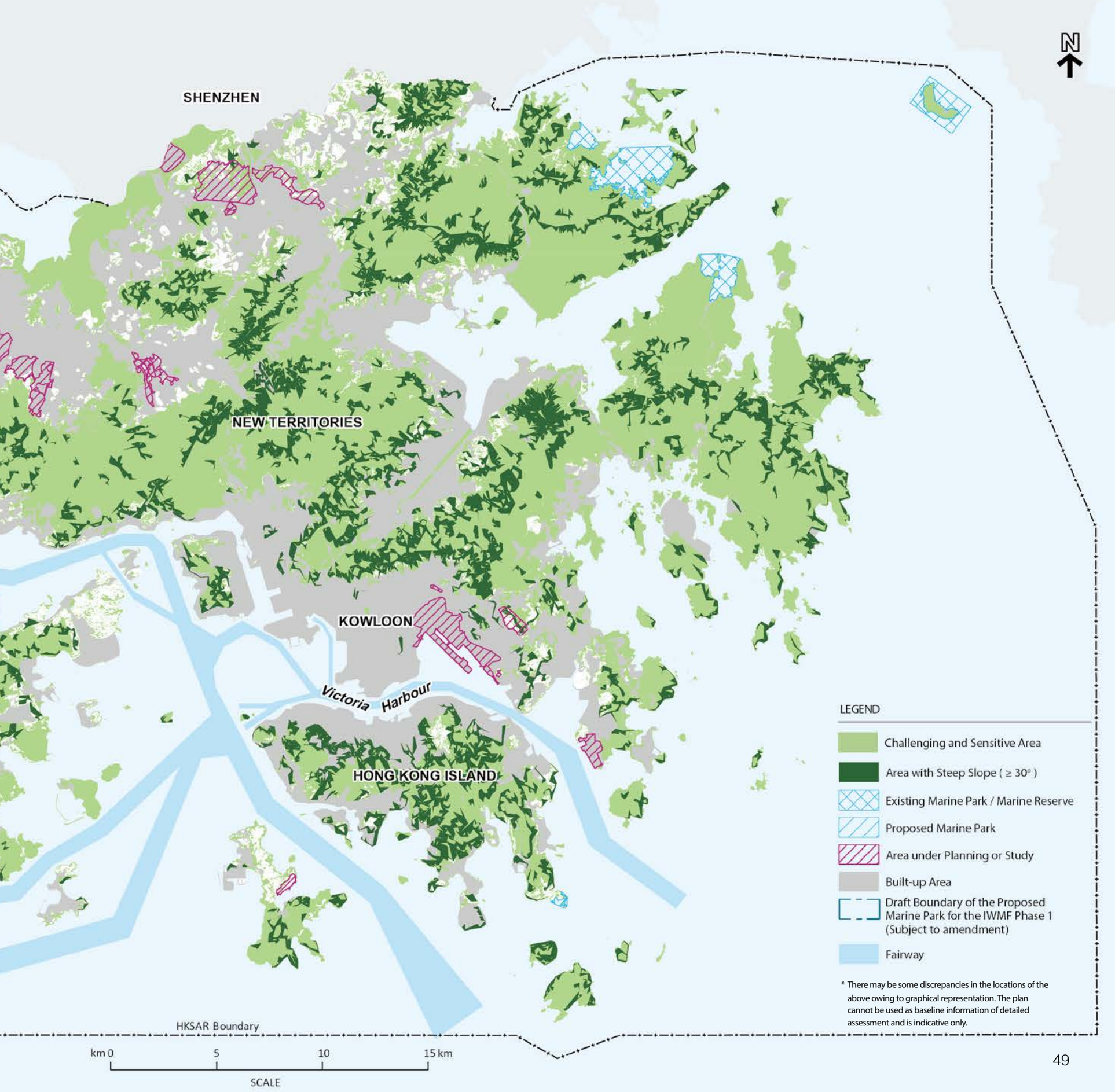
There is wide community support for conserving our valuable ecological, landscape, historic and cultural assets, which include Country Parks, Special Areas, the Ramsar Site, Wetland Conservation Areas, Conservation Areas, Marine Parks, Coastal Protection Areas, Restricted Areas and Sites of Special Scientific Interest and various designated heritage sites. In creating development capacity and optimising the use of land, we propose to accord a higher priority to reviewing degraded areas as well as sites at the fringe of built-up areas that are deserted or have low conservation and public enjoyment value. Moreover, there is a strong case for sizeable strategic growth areas for holistic planning, and for economies of scale in land and infrastructure development.

> **"Land with high ecological, landscape and/or historical value needs to be preserved. Degraded areas, land at the fringe of built-up areas, and strategic growth areas could be considered for development."**

Aerial photos from Lands Department © The Government of the Hong Kong SAR (reference no. G25/2015)

Fig.23 Considerations for Land Supply in Hong Kong




N
SHENZHEN
NEW TERRITORIES
KOWLOON
Victoria Harbour
HONG KONG ISLAND
LEGEND
Challenging and Sensitive Area
Area with Steep Slope (≥ 30°)
Existing Marine Park / Marine Reserve
Proposed Marine Park
Area under Planning or Study
Built-up Area
Draft Boundary of the Proposed Marine Park for the IWMF Phase 1 (Subject to amendment)
Fairway
* There may be some discrepancies in the locations of the above owing to graphical representation. The plan cannot be used as baseline information of detailed assessment and is indicative only.
HKSAR Boundary
km 0
5
10
15 km
SCALE

Building Block 3

Creating Capacity for Sustainable Growth

Creating Development Capacity (cont'd)

In the past, especially before the new millennium, land development in Hong Kong took place more or less in tandem with population and economic growth. However, land development has drastically slowed down in the past decade for various reasons. Between 2000 and 2013, only about 570 ha of land or an average of some 40 ha per annum were reclaimed, substantially lower than the average of about 200 ha per annum between 1985 and 2000. This results in land shortage, rent and price increases, and ever-lower housing, office, commercial and industrial space vacancies.

No single measure can address the land shortage problem and development needs. We therefore propose to adopt a multi-pronged, robust and flexible approach to create the development capacity. We could consider five broad measures:

> **"A multi-pronged land supply strategy and smart use of land resources will ensure robustness and flexibility."**

Optimising

- Upzone/rezone suitable sites or convert reserved sites with no development plan/that are no longer used for their original or other purposes
- Increase development intensity taking into account infrastructure capacity and urban design considerations
- Adopt vertical city development by relocating land inefficient uses, such as brownfield operations to multi-storey buildings where practicable
- Move new development areas and new town extensions forward through comprehensive planning and infrastructure upgrading

Comprehensive planning of the New Central Harbourfront

Redeveloping the Murray Road Multi-storey Carpark in Central for commercial use

Swopping

- Relocate land uses not requiring prime locations, such as relocating some GIC facilities, to free up land for residential and economic uses
- Better utilise the land that is not suitable for high-density development, such as restored landfills, to accommodate community and recreational uses
- Identify natural environments of high environmental and ecological value for conservation and enhancement and release land with low conservation value and public enjoyment value for other beneficial uses

Innovating

- Explore more rock cavern and underground space development to release surface areas
- Explore more topside development to optimise use of land
- Explore innovative means of removing technical and infrastructural constraints such as declassifying some Potentially Hazardous Installations by reduction in risk and overcoming geotechnical constraints

Fig.24 The Cavern Master Plan

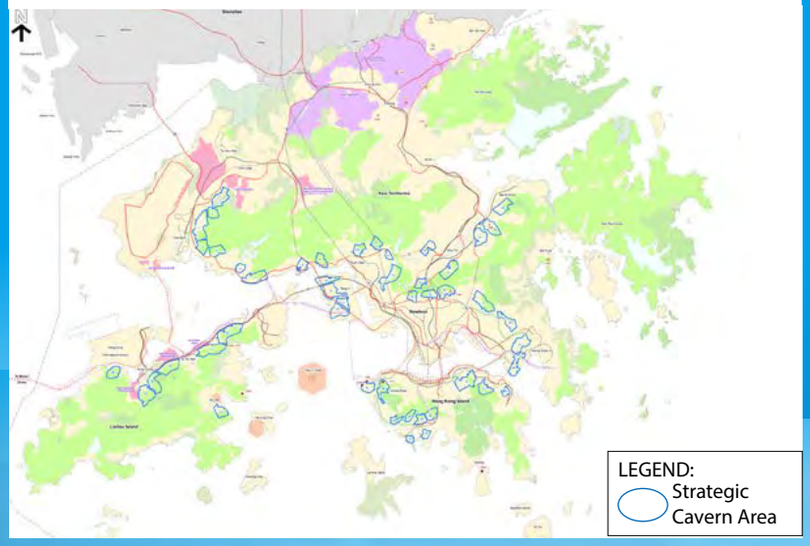
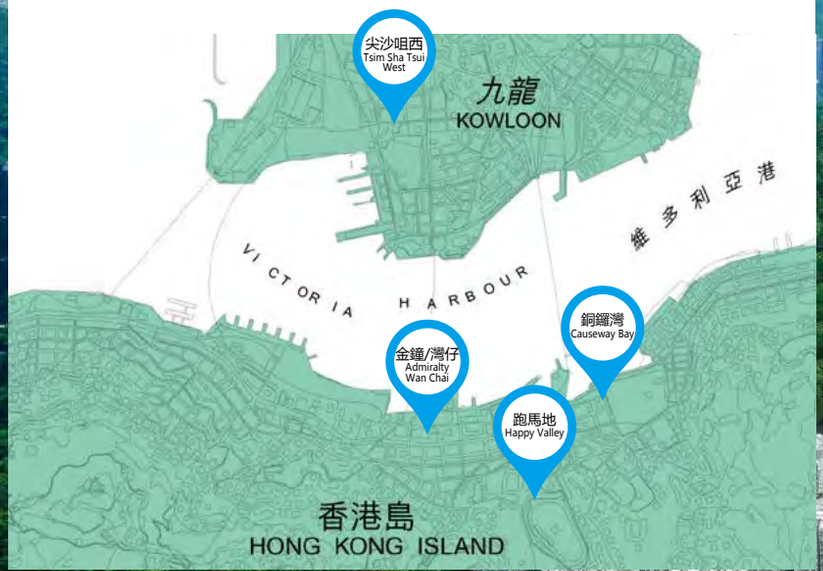


Fig.25 The Four Strategic Urban Areas under the Underground Space Development Pilot Study




Hung Shui Kiu brownfield

Creating

- Reclamation in waters with low ecological and environmental impact outside of Victoria Harbour
- Development of brownfield sites (e.g. open storage yards, recycling yards and industrial workshops) and deserted agricultural land in the rural New Territories that are incompatible with the surrounding areas
- Careful selection of greenfield sites for development giving due regard to conservation value


Lam Tei Quarry

Life-cycle planning

- Plan early for the beneficial after-use of quarries, landfill sites or other uses of a "temporary" nature to better plan and expedite the release of sites

Future Outlook of Anderson Road Quarry

Building Block 3

Creating Capacity for Sustainable Growth

Providing Supporting Transport and Other Infrastructure Capacity

> **"A well-balanced land use plan coupled with demand management measures could help optimise transport and infrastructure capacity."**

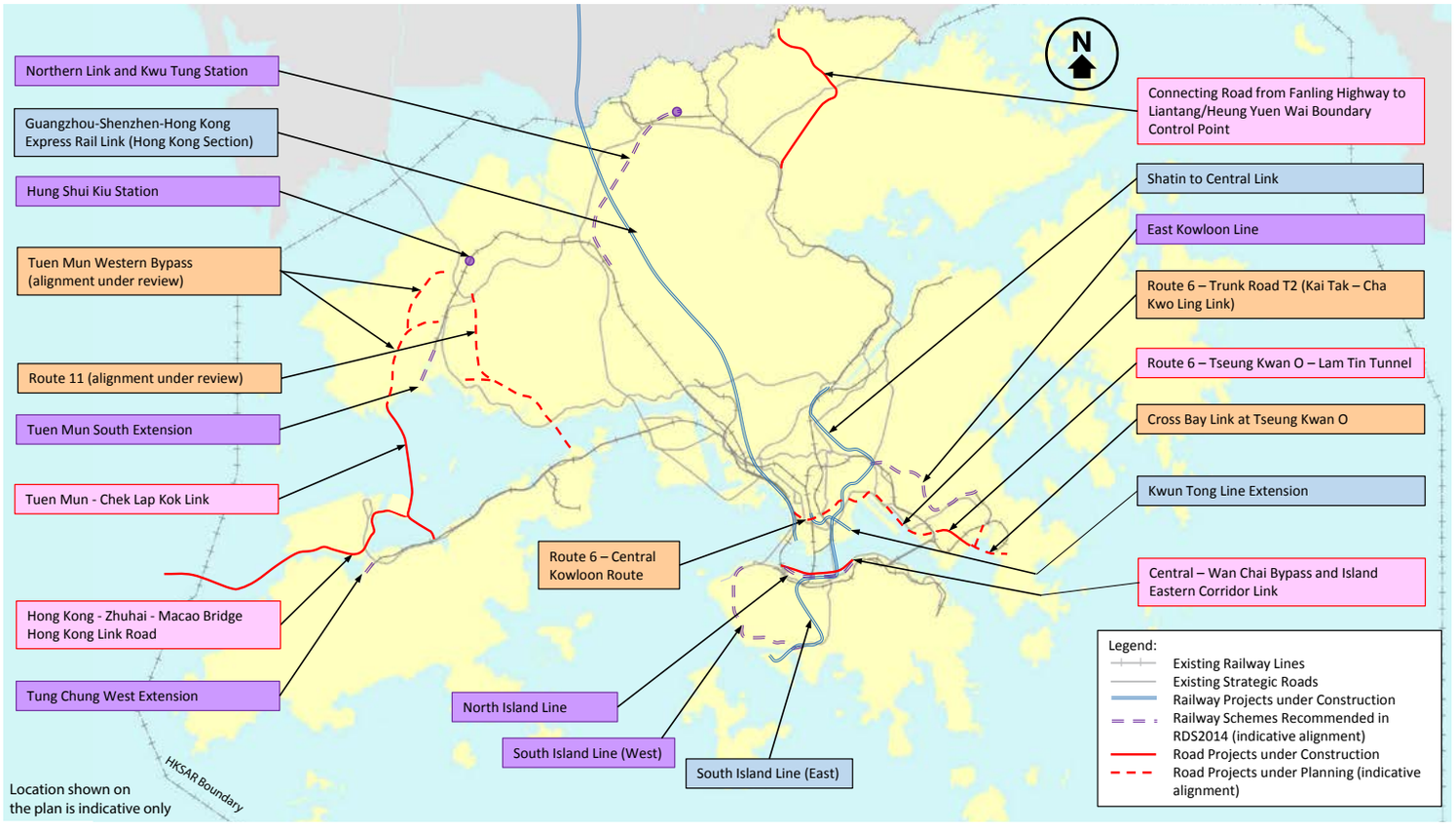
Transport Infrastructure

Studies on new strategic transport infrastructure and improvement to the existing infrastructure will be required to support new strategic growth areas. In addition to land intake, capital investments and recurrent cost considerations, environmental concerns matter. We need to minimise new demand and optimise the capacity of existing/new transport infrastructure.

Effective traffic management measures, particularly in managing private car growth and use, are vital. Railway should continue to be the backbone of the public transport system, supplemented by other modes of public transport, walking, cycling and other low-emission transport modes to reduce the carbon footprint. Better use of public transport should be achieved to reduce reliance on private vehicles.

We also need to reshape the travel pattern to minimise vehicle-based commuting needs. More employment-related land uses should be designated outside of the traditional CBD area to address the spatial mismatch of homes and jobs. Population and economic activities should be planned within the catchments of public transport nodes.

Fig.26 Existing, Committed and Proposed Railways and Strategic Highways



Other Supporting Infrastructure

We should plan to enhance the capacity of major infrastructure, such as water supply, sewage treatment and waste management, in a timely manner for sustainable growth. The strategic direction is also to minimise infrastructural land demand and resource use (e.g. co-locating different types of waste treatment and transfer facilities, and minimising discharges from infrastructure operations through recycling/reuse measures).

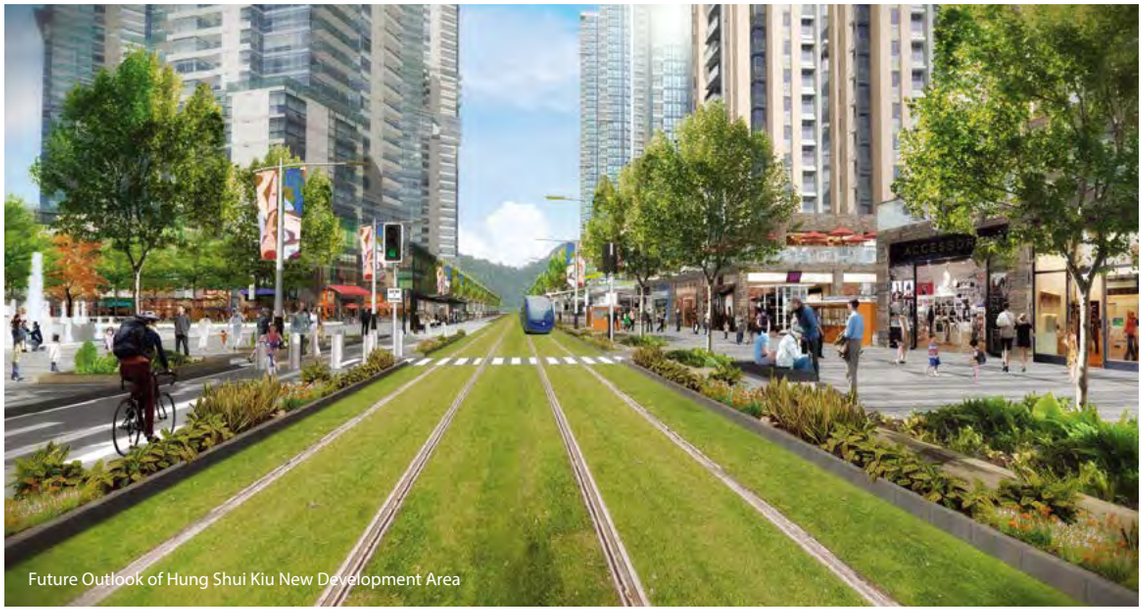
We should pursue an integrated smart, green and resilient infrastructure system (e.g. a district cooling system, electric vehicle charging infrastructure, waste-to-energy conversion, effluent reuse and whole life-cycle carbon assessment). This will minimise environmental impact, improve energy efficiency and enhance our preparedness for climate change.

> **"Integrated infrastructure planning is needed to minimise land demand and to promote a smart, green and resilient infrastructure system."**

Shatin Sewage Treatment Works

Tai Hang Tung Underground Flood Water Storage Tank

South East New Territories Landfill



Future Outlook of Hung Shui Kiu New Development Area

Building Block 3

Creating Capacity for Sustainable Growth

Creating, Enhancing and Regenerating Environmental Capacity

The natural environment and biodiversity are crucial to our well-being and health, e.g. providing food and water supplies, regulating microclimates and purifying water. To promote sustainability, the planning framework for creating development capacity needs to go hand in hand with creating, enhancing and regenerating environmental capacity by integrating conservation and biodiversity considerations into planning and decision making and improving our environment. This echoes the Government's initiative to develop a city-level Biodiversity Strategy and Action Plan (BSAP) under the Convention on Biological Diversity.

Biodiversity Enhancement

Environmental Improvement

Revitalising Water Bodies (Sai Kung)

Revitalising Farmland (Lai Chi Wo)

Protecting Country Park Enclaves
(by incorporating into country parks or statutory plans)

Promoting Urban Ecology

Maintaining Existing Protection Status of Protected Areas (Conservation Areas, Special Areas, etc)

Reusing Treated Sewage Effluent
(Ngong Ping Sewage Treatment Works)

Planning for a Low Carbon City
(District Cooling System in Kai Tak)

Revitalising Restored Landfills (Lam Tin)

Improving Roadside Environment

> **"We need to incorporate biodiversity considerations and proactively enhance our environmental capacity as an integral part of sustainable growth."**

Adopting Waste-to-energy Approach
(T · PARK in Tuen Mun)

Urban Living in Balance with Nature
(Hung Shui Kiu New Development Area)

Building Block 3

Creating Capacity for Sustainable Growth

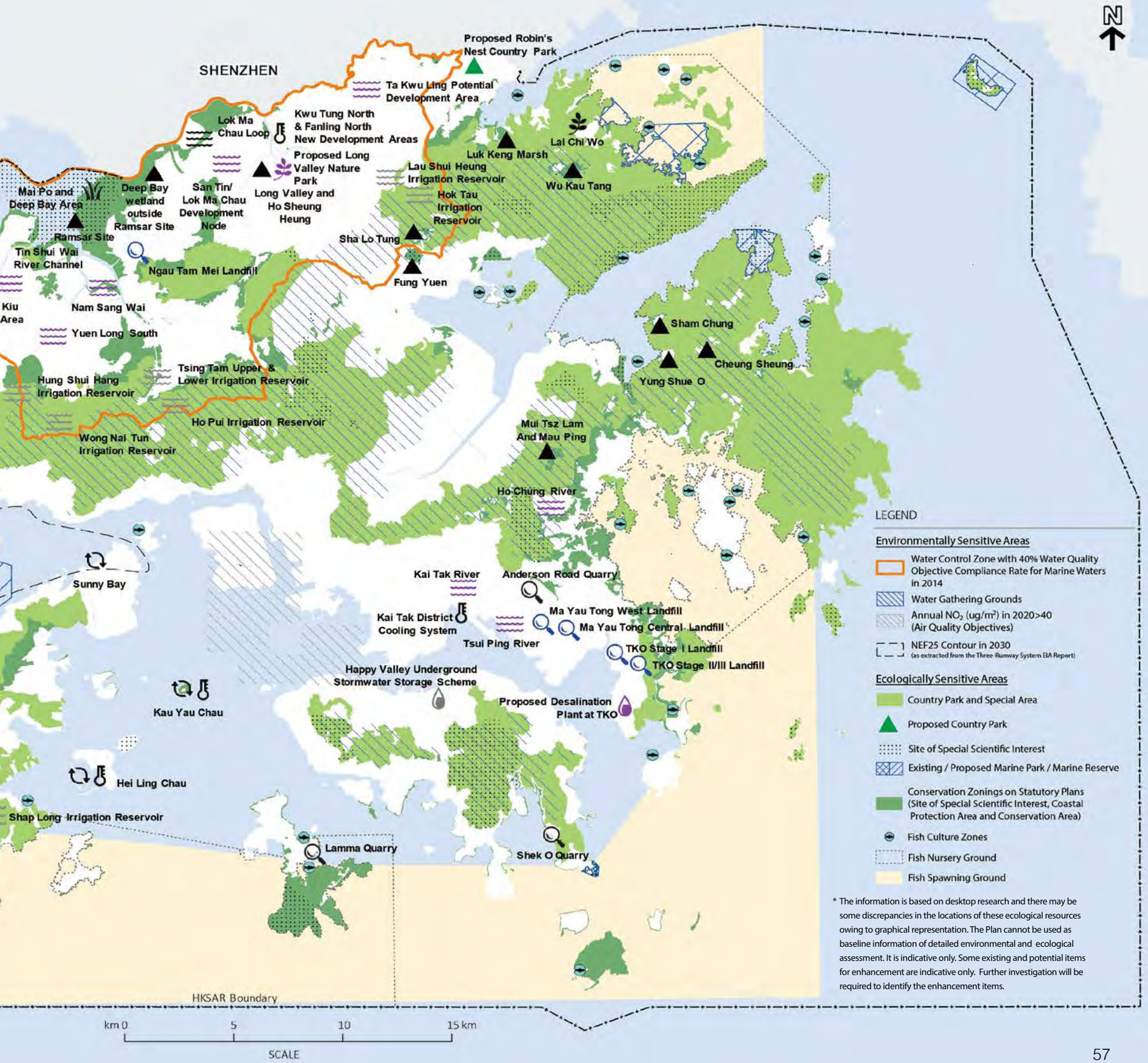
Creating, Enhancing and Regenerating Environmental Capacity (cont'd)

The environmentally and ecologically sensitive areas are identified below, where major development is to be avoided. Some potential aspects/areas for creating or regenerating depleting environmental capacity through active conservation and appropriate management, responsive planning and design, minimising resource use and pollution, etc are worth further examination.

Creating, Enhancing and Regenerating Environmental Capacity

	Aspects	Initiatives
BIODIVERSITY ENHANCEMENT	Country Parks, Marine Parks and Sites of Special Scientific Interest	● Continuing to protect ● Taking forward the proposed extensions ● Country Park Plantation Enrichment
	12 Priority Sites and Country Parks (CP) Enclaves	● Continuing to protect ● Enhancing conservation value of the 12 Priority Sites through Public-private Partnership (PPP) Scheme and Management Agreement (MA) Scheme under New Nature Conservation Policy ● Incorporating CP enclaves into CPs or statutory town plans
	Wetlands/ Marshes	● Continuing to protect (e.g. Ramsar Site, Wetland Conservation Areas and Wetland Buffer Areas) ● Identifying areas requiring enhancement
	Water Bodies	● Stream/river revitalisation ● Catchment/reedbed enhancement ● Irrigation reservoir enhancement
	Agriculture	● Setting up of agricultural park ● Setting up of nature park ● Revitalisation of abandoned agricultural land
	Urban Biodiversity	● Promoting urban ecology (e.g. enhancing ecological value of urban greenery)
	Coastline	● Adoption of eco-shoreline for new reclamation/Conversion of existing seawall into eco-shoreline
ENVIRONMENTAL IMPROVEMENT	Energy	● Planning for a low carbon city and a better urban wind environment
	Air & Noise	● Reducing air pollutants through environmentally friendly transport and green infrastructure ● Improvement and preservation of acoustic environment
	Water	● Save water campaign ● Water resources protection and enhancement ● Seawater desalination to diversify fresh water sources ● Reclaimed water: reuse of treated sewage effluent ● Grey water recycling and rainwater harvesting system
	Waste	● 4Rs Concept: reduce, reuse, recycle and recover ● Waste-to-energy approach
	Degraded areas	● Comprehensive replanning of brownfields ● Rehabilitation of quarries ● Restoration of landfills (Restored landfills available for afteruse development under the Restored Landfill Revitalisation Funding Scheme)

Fig. 27 Conceptual Planning Framework for Environmental Protection and Nature Conservation



* The information is based on desktop research and there may be some discrepancies in the locations of these ecological resources owing to graphical representation. The Plan cannot be used as baseline information of detailed environmental and ecological assessment. It is indicative only. Some existing and potential items for enhancement are indicative only. Further investigation will be required to identify the enhancement items.

Building Block 3

Creating Capacity for Sustainable Growth

A Smart, Green and Resilient City Strategy

"The concept of a smart, green and resilient city should permeate all aspects of the built environment, from land use planning to transport, infrastructure and buildings to achieve a sustainable and future-proof city."

The signing of the Paris Agreement in 2016 signified a collaborative international commitment to combat climate change. As a global city upholding its environmental stewardship, Hong Kong should better prepare for or even take the lead in embracing the urban challenges of the 21st century, notably climate change. A city strategy based on the smart, green and resilient (SGR) principles is instrumental to achieving this.

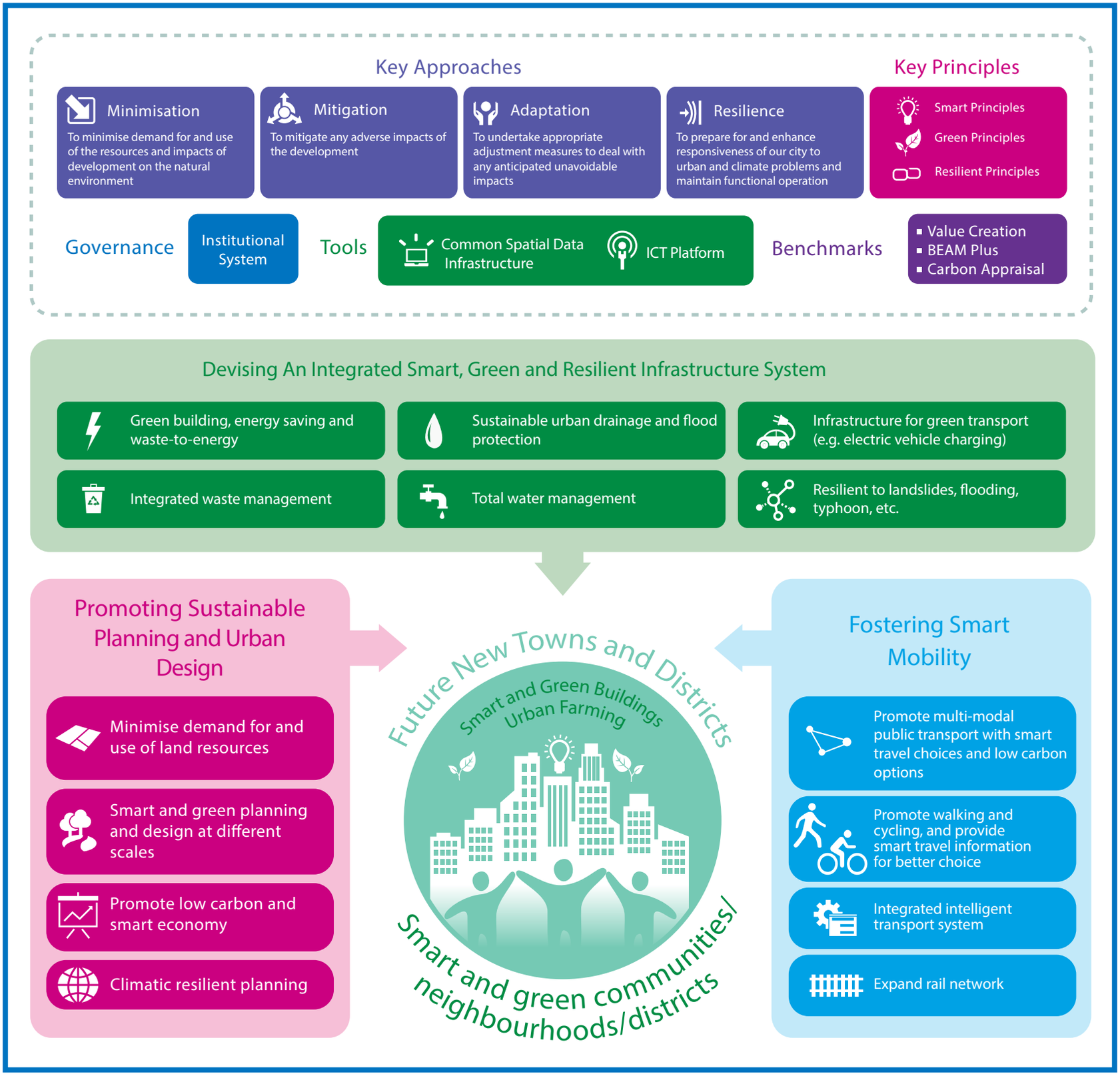
As can be seen from the general SGR city framework, SGR embraces a whole array of aspects concerning the built environment, and Hong Kong 2030+ will focus on the scope that is relevant to land use planning, transport, infrastructure and building development.

The SGR city strategy includes three aspects of the built environment:
(i) promoting sustainable planning and urban design;
(ii) fostering smart mobility; and
(iii) devising an integrated smart, green and resilient infrastructure system.

It focuses on minimising demand for use of resources, promoting low-carbon smart economy and living, reducing carbon emissions, enhancing city efficiency, promoting business productivity, improving quality of urban living and enhancing climatic resilience. It will be supported by a common spatial data infrastructure and a robust network of ICT infrastructure.

All in all, the strategy calls for an innovative, vigilant, adaptive and forward-looking mindset that permeates all levels, aspects and stages of city planning and development.

Fig. 28 General Smart, Green and Resilient City Framework for the Built Environment



Building Block 3

Creating Capacity for Sustainable Growth

Key Strategic Directions and Actions

Creating Development Capacity

Key Strategic Directions: Optimising land uses

Key Actions

- To upzone/rezone suitable sites
- To relocate uses requiring less prime sites
- To relocate inefficient low-density uses to multi-storey buildings
- To increase development intensity where planning terms permit
- To explore more topside development to optimise use of land
- To explore innovative means to remove infrastructural/technical/geotechnical constraints for unleashing development potential of sites

Key Strategic Directions: Identifying new land

Key Actions

- To conserve and enhance natural environment of high environmental and ecological value and to identify sites with low conservation value and public enjoyment value for more productive uses
- To review brownfield sites and deserted agricultural land in the New Territories
- To explore reclamations on an appropriate scale outside of Victoria Harbour
- To explore more rock cavern, underground space and topside developments
- To plan early for beneficial after-use of quarries, landfill sites or other uses of a temporary nature

Providing Supporting Transport Capacity

Key Strategic Directions: Supporting transport infrastructure

Key Actions

- To continue with the policy of railway transportation as the backbone of the public transport system, complemented by other public transport modes
- To manage car growth and use
- To optimise road-based public transport
- To promote low-carbon, low-emission transport modes


Tuen Mun New Town *


Sha Tin New Town *

Providing Supporting Transport Capacity (cont'd)

Key Strategic Directions: Reshaping travel pattern

Key Actions

- To promote smart urban growth with jobs closer to home, and walking and cycling to reduce travel needs
- To designate more employment-related land uses in new development areas and outside of the traditional CBD area

Providing Supporting Infrastructure Capacity

Key Strategic Directions: Promoting integrated smart, green and resilient infrastructure

Key Actions

- To promote the use of district cooling system, electric vehicle charging infrastructure, waste-to-energy conversion, effluent reuse, etc

Key Strategic Directions: Promoting waste management

Key Actions

- To review the land requirements for the recycling industry and the planning of future waste management and transfer facilities
- To promote integrated waste recovery and waste-to-energy facilities
- To explore the co-location of different types of waste treatment and transfer facilities

Creating, Enhancing and Regenerating the Environmental Capacity

Key Strategic Directions: Observing the general environmental improvement and biodiversity enhancement framework

Key Actions

- To take forward the initiatives identified in the framework in development and infrastructure planning and nature conservation

A Smart, Green and Resilient City Strategy

Key Strategic Directions: Observing the general SGR city framework

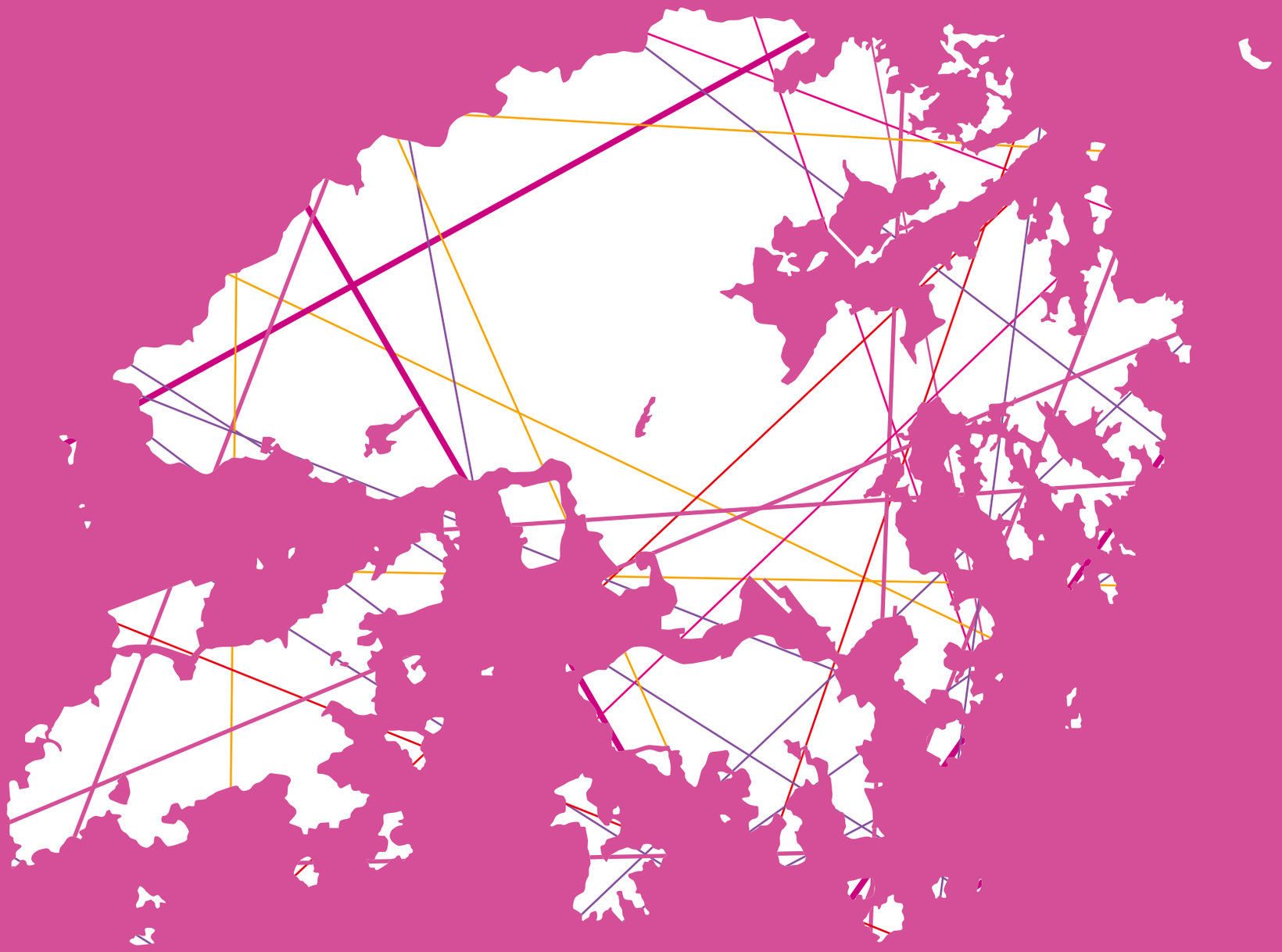
Key Actions

- To apply the SGR city framework in territorial planning and the planning of new development areas/neighbourhoods
- To establish an integrated Common Spatial Data Infrastructure and ICT platform

*Aerial photos from Lands Department © The Government of the Hong Kong SAR (reference no. G25/2015)


Long Valley *


Future Outlook of Hung Shui Kiu New Development Area



Conceptual Spatial Framework

“To translate the building blocks into spatial planning terms, a clear framework is proposed, focusing on future development with a metropolitan business core, two strategic growth areas and three primary development axes.”

Conceptual Spatial Framework

Guiding Principles

With regard to land supply and demand assessment, the spatial distribution of existing, planned and committed developments, transport infrastructure, environmental conditions and the following guiding principles, a conceptual spatial framework for the territorial development of Hong Kong is proposed:

(i) Conserve areas of high ecological and conservation value and pay due regard to environmentally sensitive areas, concentrate development along axes and nodes, and avoid urban sprawl.

(ii) Promote the agglomeration of economies, create the necessary critical mass and facilitate the build-up of business ecosystems that will enhance efficiency, business viability, economic performance and collaboration. We should leverage strategic locations, capture new development opportunities brought by new roads, railway lines and boundary control points, and cluster industries at strategic and highly accessible locations.

(iii) Enhance the spatial distribution of population and jobs through the creation of economic activities and employment nodes in new strategic growth areas to create jobs for a range of skills, bring jobs closer to home and improve the sustainability of communities.

(iv) Enhance liveability through planning and urban design measures to retrofit congested old urban areas and create smart, green and resilient new development areas. The green and blue assets and urban-rural-countryside-nature continuum concepts will be adopted to bring nature closer to people.

> **"A conceptual spatial framework helps guide the planning, land and infrastructural development for a sustainable Hong Kong."**

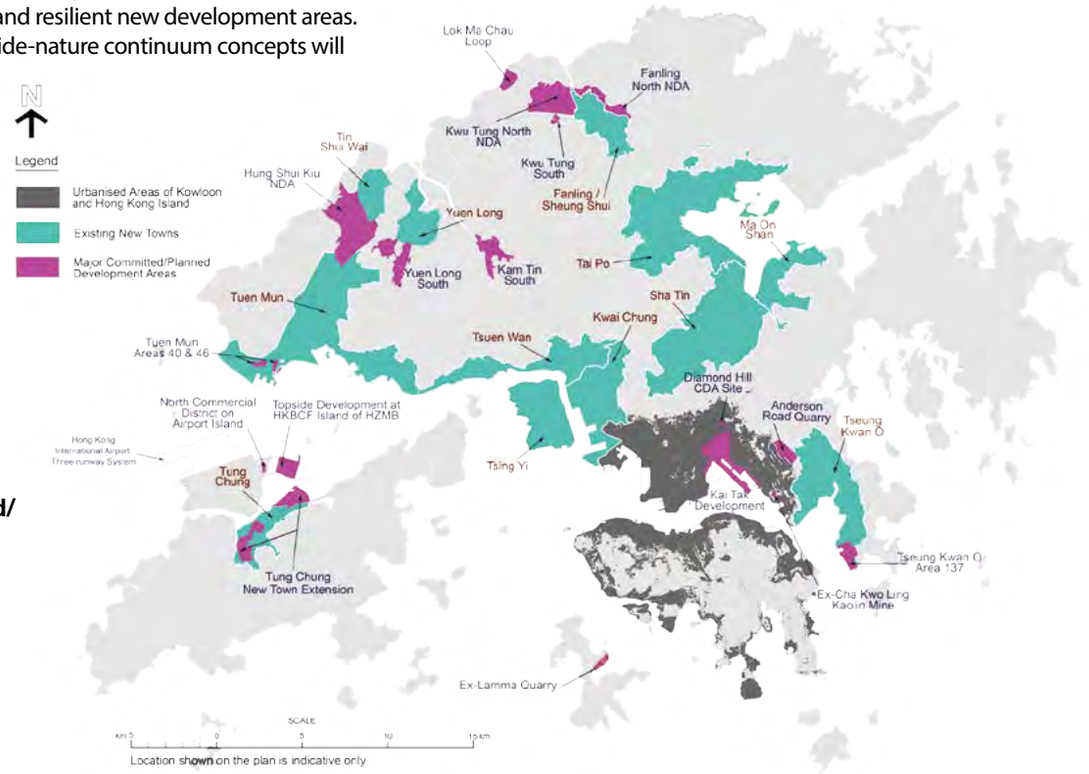


Fig. 29 Existing and Major Committed/ Planned Developments

Conceptual Spatial Framework

Spatial Development Pattern

Metropolitan Business Core
- Agglomeration of business activities to create a major hub at the urban core
- Central CBD and Kowloon East CBD2 in the existing Metro Area
- West Kowloon – synergy with the Central CBD and the high connectivity to the Mainland through the Guangzhou-Shenzhen-Hong Kong Express Rail Link
- North Point/Quarry Bay – secondary office node
- Wong Chuk Hang – emerging office and business node
- East Lantau Metropolis (ELM) – CBD3, a new and smart platform for office and business development

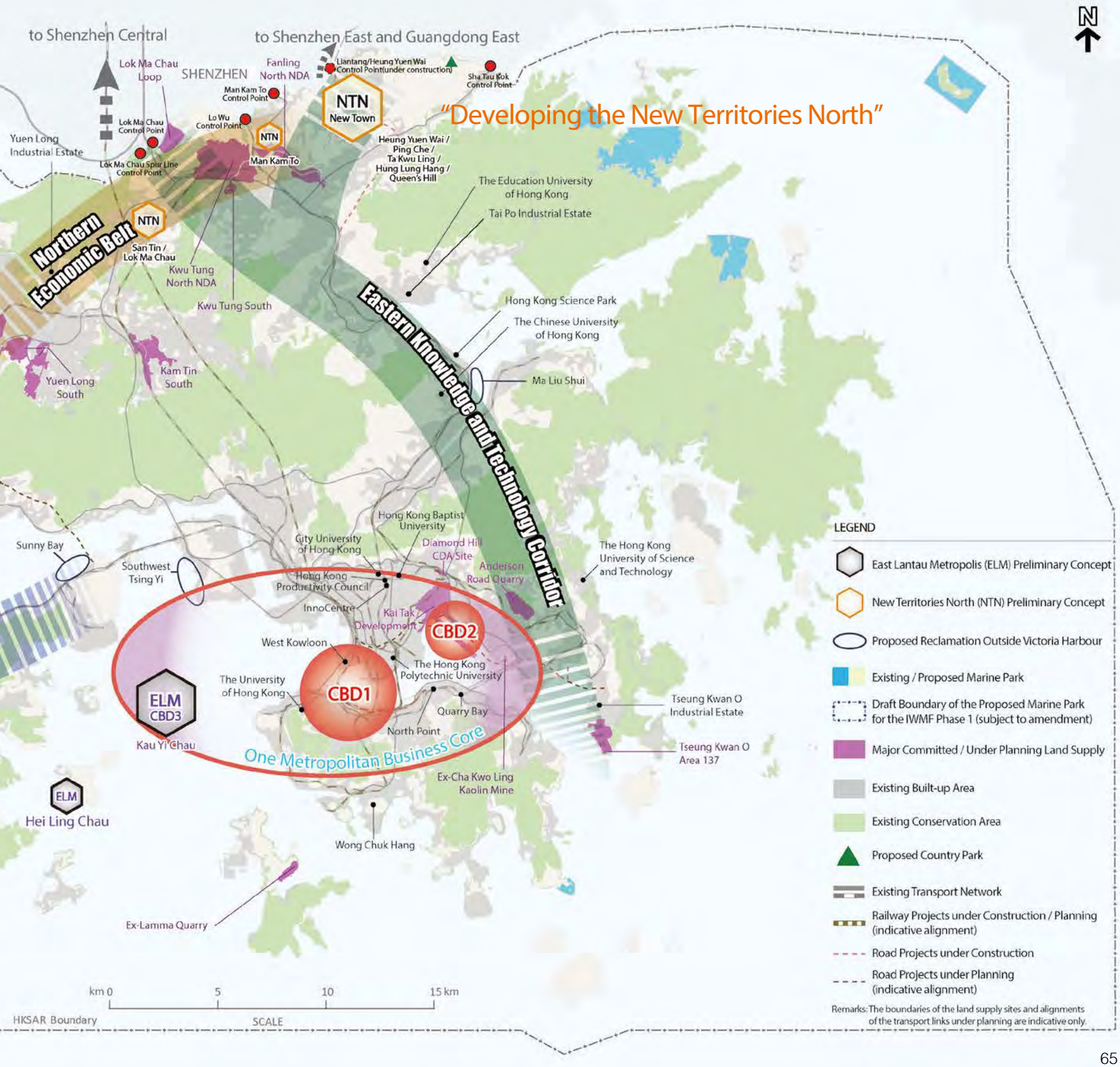
Western Economic Corridor
- International and regional gateway supported by strategic transport infrastructure
- Hong Kong International Airport with the Three-runway System and North Commercial District
- Hong Kong-Zhuhai-Macao Bridge (HZMB) with topside commercial development at the Hong Kong Boundary Crossing Facilities (HKBCF) Island
- Tung Chung New Town Extension – new business/commercial hub
- Logistics developments in Tuen Mun West
- Planned commercial/modern logistics developments in Hung Shui Kiu NDA

Eastern Knowledge and Technology Corridor
- Development of a tech-ecosystem for high-technology and knowledge-based industries
- Existing science park in Tai Po and possible R&D and higher education facilities at Ma Liu Shui development
- Two existing industrial estates at Tseung Kwan O and Tai Po
- Six existing universities – PolyU at Hung Hom, CityU and HKBU at Kowloon Tong, CUHK at Sha Tin, EdUHK at Tai Po and HKUST at Clear Water Bay
- Industrial and service support facilities at Kowloon Tong – InnoCentre and Hong Kong Productivity Council
- Lok Ma Chau Loop and Kwu Tung North NDA for development of R&D institutes/facilities
- Possible science park/industrial estate development near future Liantang/Heung Yuen Wai Boundary Control Point (LT/HYW BCP) within the New Territories North (NTN)

Northern Economic Belt
- Potential for warehousing, R&D and modern logistics capitalising on the strategic location for being in close proximity to Shenzhen
- Six existing boundary crossings at the Shenzhen Bay Port, the Lok Ma Chau Station, Lok Ma Chau, Man Kam To, Sha Tau Kok and Lo Wu, and LT/HYW under construction
- Existing industrial estate at Yuen Long
- Possible developments in the NTN including commercial/retail facilities in San Tin/Lok Ma Chau, modern logistics development at Man Kam To and possible science park/industrial estate development near the future LT/HYW BCP

Fig. 30 Proposed Spatial Development Pattern

"Creating a new metro front by developing the East Lantau Metropolis"


"Developing the New Territories North"
to Shenzhen Central
to Shenzhen East and Guangdong East
Lok Ma Chau Loop
SHENZHEN
Fanling North NDA
Liantang/Heung Yuen Wai Control Point(under construction)
Sha Tau Kok Control Point
Man Kam To Control Point
Lok Ma Chau Control Point
Lo Wu Control Point
NTN
New Town
Yuen Long Industrial Estate
Lok Ma Chau Spur Line Control Point
Man Kam To
Heung Yuen Wai / Ping Che / Ta Kwu Ling / Hung Lung Hang / Queen's Hill
The Education University of Hong Kong
Tai Po Industrial Estate
Northern Economic Belt
San Tin / Lok Ma Chau
Kwu Tung North NDA
Kwu Tung South
Eastern Knowledge and Technology Corridor
Hong Kong Science Park
The Chinese University of Hong Kong
Ma Liu Shui
Yuen Long South
Kam Tin South
Hong Kong Baptist University
City University of Hong Kong
Diamond Hill CDA Site
Anderson Road Quarry
The Hong Kong University of Science and Technology
Sunny Bay
Southwest Tsing Yi
Hong Kong Productivity Council
InnoCentre
Kai Tak Development
CBD2
West Kowloon
The Hong Kong Polytechnic University
The University of Hong Kong
CBD1
ELM CBD3
Kau Yi Chau
Quarry Bay
North Point
One Metropolitan Business Core
Tseung Kwan O Industrial Estate
Tseung Kwan O Area 137
Ex-Cha Kwo Ling Kaolin Mine
ELM
Hei Ling Chau
Wong Chuk Hang
Ex-Lamma Quarry
km 0
5
10
15 km
HKSAR Boundary
SCALE
LEGEND
East Lantau Metropolis (ELM) Preliminary Concept
New Territories North (NTN) Preliminary Concept
Proposed Reclamation Outside Victoria Harbour
Existing / Proposed Marine Park
Draft Boundary of the Proposed Marine Park for the IWMF Phase 1 (subject to amendment)
Major Committed / Under Planning Land Supply
Existing Built-up Area
Existing Conservation Area
Proposed Country Park
Existing Transport Network
Railway Projects under Construction / Planning (indicative alignment)
Road Projects under Construction
Road Projects under Planning (indicative alignment)
Remarks: The boundaries of the land supply sites and alignments of the transport links under planning are indicative only.

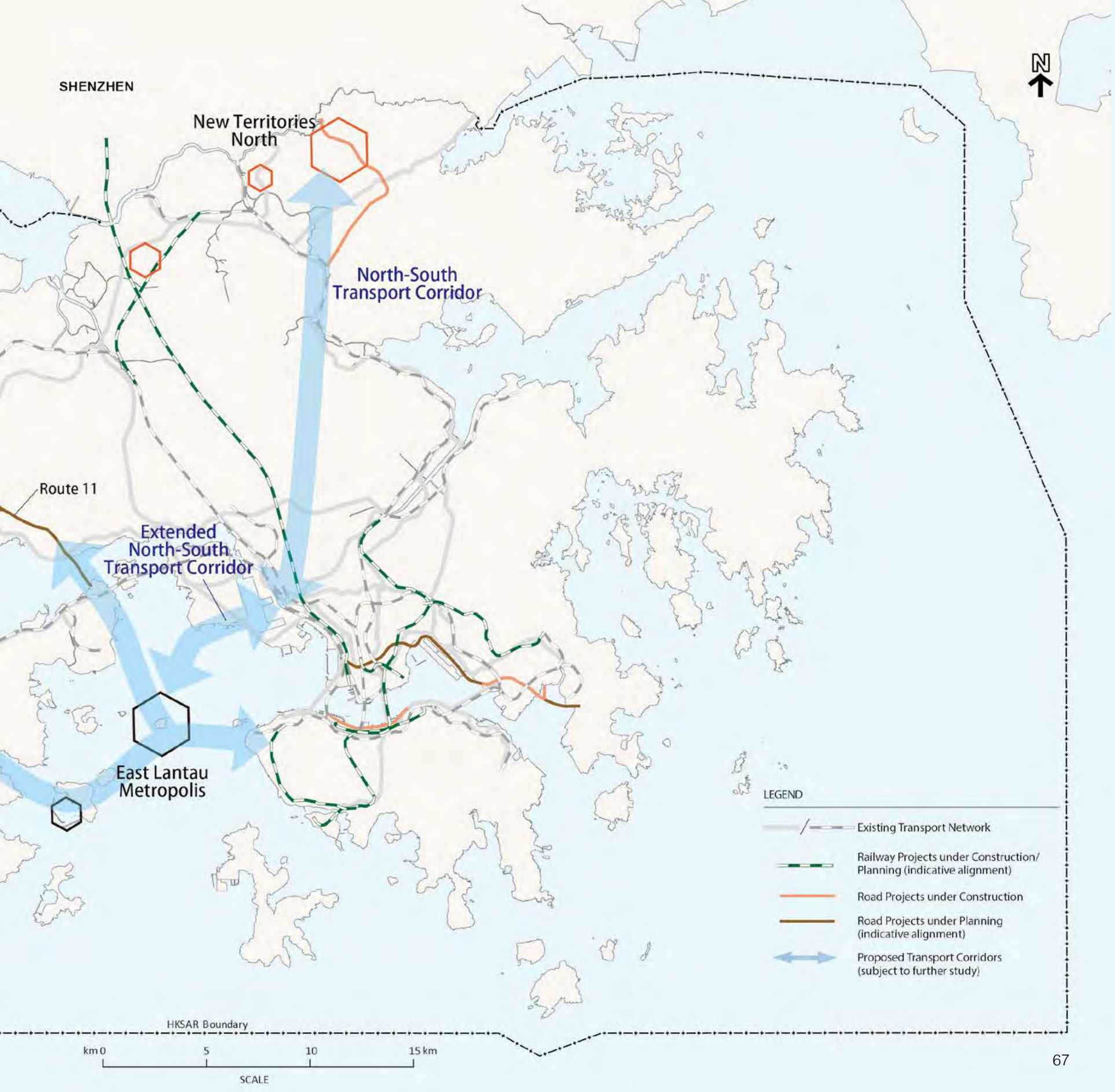
Conceptual Spatial Framework

Supporting Transport Network

> **Railway transportation, the environmentally friendly mass transport carrier, will continue to be the backbone, complemented by other public transport services.**

Fig. 31 Proposed Supporting Transport Network for Spatial Development Pattern

The proposed supporting transport network is a draft conceptual plan and subject to further study.


SHENZHEN
New Territories North
North-South Transport Corridor
Route 11
Extended North-South Transport Corridor
East Lantau Metropolis
N
LEGEND
Existing Transport Network
Railway Projects under Construction/ Planning (indicative alignment)
Road Projects under Construction
Road Projects under Planning (indicative alignment)
Proposed Transport Corridors (subject to further study)
HKSAR Boundary
km 0
5
10
15 km
SCALE

Conceptual Spatial Framework

“A clear spatial framework focusing on development within a metropolitan business core, two strategic growth areas and three primary development axes and conserving natural assets.”

1 Metropolitan business core around Victoria Harbour

2 Strategic growth areas (the East Lantau Metropolis and the New Territories North)

3 Emerging development axes (Western Economic Corridor, Eastern Knowledge and Technology Corridor and Northern Economic Belt)

Overview

We are prudent in optimising the locational advantages of different sectors/industries, the distribution of population and jobs, and the capacities of transport, infrastructure and environment for an environmentally conscious, efficient and cost-effective development pattern. A clear spatial framework focusing future development within a metropolitan business core, two strategic growth areas (SGAs) and three primary development axes is proposed so that our natural assets can be duly conserved.

One Core: **Metropolitan Business Core** – (1) the traditional CBD focusing on high value-added financial services and advanced producer services; (2) CBD2 as a choice for businesses and enterprises at a new business area under transformation; and (3) CBD3 (the East Lantau Metropolis (ELM)) as a new and smart financial and producer services hub at a strategic location bridging Hong Kong Island and Lantau.

Two SGAs: with different focuses: (1) bridging Hong Kong and Lantau and creating a new metro front by developing the ELM mainly through reclamation; and (2) developing the New Territories North (NTN) as the future new town of Hong Kong, mainly through comprehensive planning and more efficient use of brownfield sites and abandoned agricultural land.

Three Axes: (1) **Western Economic Corridor** - capitalising on the international and regional gateway and strategic transport infrastructure in West Hong Kong, and increasing economic activities and employment in Hung Shui Kiu, Tuen Mun, Yuen Long South and various developments in North Lantau; (2) **Eastern Knowledge and Technology Corridor** - capitalising on the existing high-technology and knowledge-based industries and tertiary institutions, and strengthening the corridor through additional developments proposed in Tseung Kwan O, Kwu Tung North, the Lok Ma Chau Loop, Ma Liu Shui and near the future Liantang/Heung Yuen Wai Boundary Control Point; and (3) **Northern Economic Belt** - comprising an east-west corridor along the northern part of the New Territories with six existing boundary crossings and an additional one under construction, suitable for warehousing, R&D, modern logistics and other services, and emerging industries.

Apart from addressing housing need, the planned developments and the two SGAs will provide land and spaces for economic uses, community facilities and infrastructure. Through close monitoring of the situation, we will be able to determine the trigger points for moving the two SGAs forward.

The maximum housing capacity of all developments under the proposed spatial framework is about **9 million** in terms of population. It should be emphasised that this figure is not a population target but the possible housing capacity that could be generated under Hong Kong 2030+ on the basis of currently projected domestic households, projected households size, assumed flat size, assumed vacancy rate, and demolition and redevelopment, etc. More importantly, such a capacity could give a 10% buffer for the peak population projected to reach 8.22 million by 2043 under the baseline projections, noting that the buffer could be translated into manoeuvring spaces not only for improving our quality of life, such as through larger housing space, more public amenities and more community facilities, but also allowing us to cope with unforeseeable circumstances including changes in the above projection assumptions.

All in all, the buffer could provide the readiness and flexibility needed to respond swiftly to aspirations and changes.

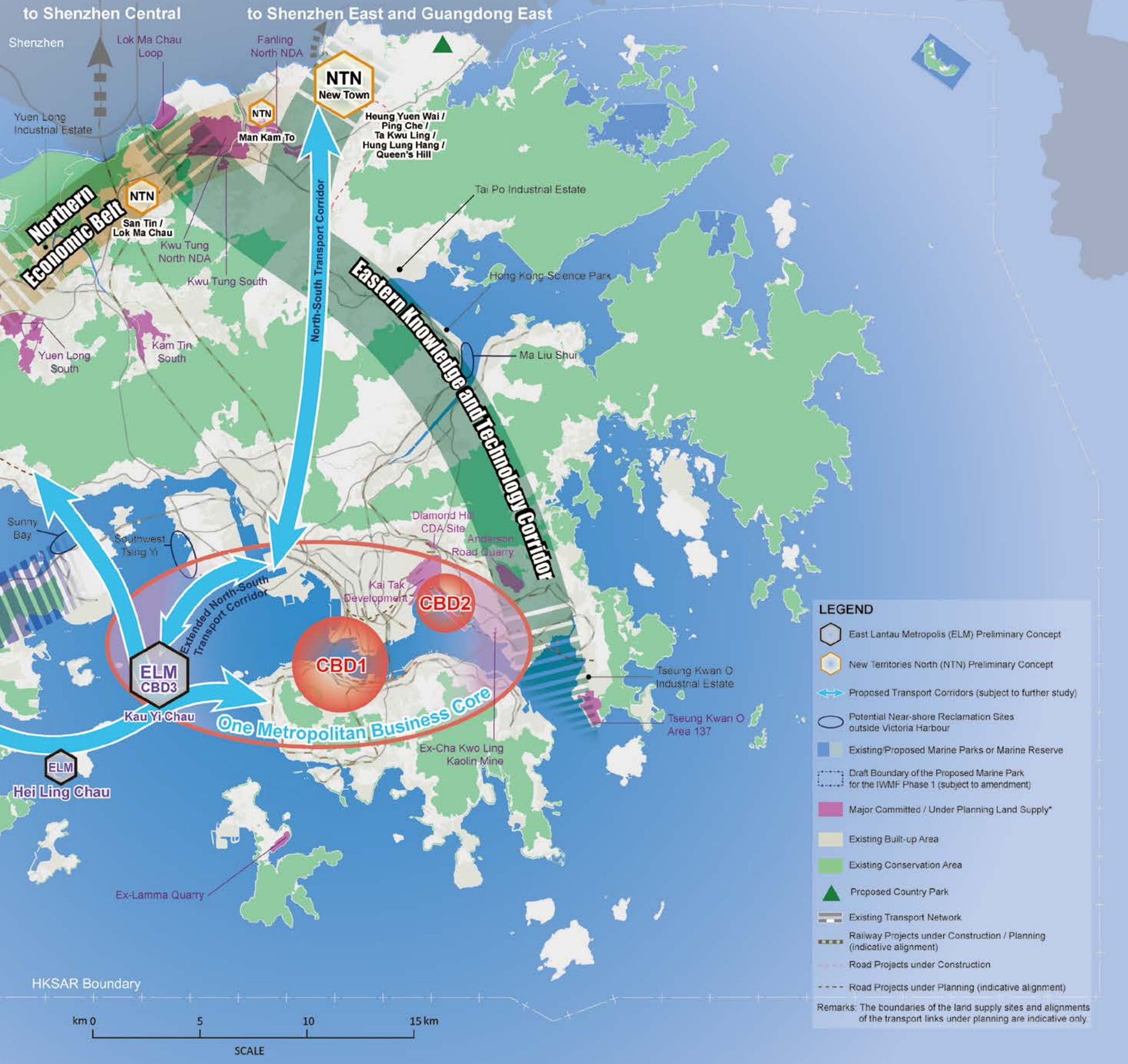
Conceptual Spatial Framework

> **We are prudent in optimising the distribution of population and jobs as well as the capacity of transport infrastructure for an environmentally conscious, efficient and cost-effective development pattern.**

Fig.32 Conceptual Spatial Framework for Hong Kong 2030+

*Major Committed / Under Planning Land Supply includes:

Kai Tak Development, North Commercial District on Airport Island, Tung Chung New Town Extension, Topside Development at HKBCF Island of HZMB, Yuen Long South, Hung Shui Kiu NDA, Kam Tin South, Lok Ma Chau Loop, Kwu Tung North NDA, Fanling North NDA, Anderson Road Quarry, Diamond Hill CDA Site, Ex-Lamma Quarry, Ex-Cha Kwo Ling Kaolin Mine, Tuen Mun Areas 40 & 46, Kwu Tung South and Tseung Kwan O Area 137


to Shenzhen Central
to Shenzhen East and Guangdong East
Shenzhen
Lok Ma Chau Loop
Fanling North NDA
NTN New Town
NTN
Man Kam To
Heung Yuen Wai / Ping Che / Ta Kwu Ling / Hung Lung Hang / Queen's Hill
Yuen Long Industrial Estate
Northern Economic Belt
NTN
San Tin / Lok Ma Chau
Kwu Tung North NDA
Kwu Tung South
North-South Transport Corridor
Tai Po Industrial Estate
Eastern Knowledge and Technology Corridor
Hong Kong Science Park
Yuen Long South
Kam Tin South
Ma Liu Shui
Sunny Bay
Southwest Tsing Yi
Diamond Hill CDA Site
Anderson Road Quarry
Kai Tak Development
CBD2
Extended North-South Transport Corridor
CBD1
ELM CBD3
Kau Yi Chau
One Metropolitan Business Core
Tseung Kwan O Industrial Estate
Tseung Kwan O Area 137
Ex-Cha Kwo Ling Kaolin Mine
ELM
Hei Ling Chau
Ex-Lamma Quarry
HKSAR Boundary
km 0
5
10
15 km
SCALE
LEGEND
East Lantau Metropolis (ELM) Preliminary Concept
New Territories North (NTN) Preliminary Concept
Proposed Transport Corridors (subject to further study)
Potential Near-shore Reclamation Sites outside Victoria Harbour
Existing/Proposed Marine Parks or Marine Reserve
Draft Boundary of the Proposed Marine Park for the IWMF Phase 1 (subject to amendment)
Major Committed / Under Planning Land Supply*
Existing Built-up Area
Existing Conservation Area
Proposed Country Park
Existing Transport Network
Railway Projects under Construction / Planning (indicative alignment)
Road Projects under Construction
Road Projects under Planning (indicative alignment)
Remarks: The boundaries of the land supply sites and alignments of the transport links under planning are indicative only.

Conceptual Spatial Framework

One Metropolitan Business Core

This will cover the traditional CBD, Kowloon East (namely CBD2) and, subject to new strategic transport links to the main urban areas and other parts of the territory, CBD3 in the ELM as an extended urban core in the longer term. Being only about 4 km away from Hong Kong Island West, the ELM could be efficiently connected to the existing CBD, reinforcing the existing business core around Victoria Harbour and creating a new metro front in the territory.

Functionally, the three CBDs could complement one another. The traditional CBD could focus on high value-added financial services and advanced producer services. CBD2 may provide options for businesses and enterprises at a new business area under transformation. The proposed CBD3 at the ELM may offer modern, innovative and quality premises, creating a financial and producer services hub strongly tied to the airport and Hong Kong's connector function in the region, capitalising on the new economic infrastructure and gateway function of Lantau.

Central business district

> **“The two strategic growth areas with different focuses, creating a new metro front and developing the New Territories North, have their own strategic advantages and impetus for development.”**

Two Strategic Growth Areas

East Lantau Metropolis (ELM) – the basic concept of the ELM is to create artificial islands by reclamations in the waters near Kau Yi Chau and the Hei Ling Chau Typhoon Shelter, and to make better use of the underutilised land in Mui Wo, with the aim of creating a smart, liveable and low-carbon development cluster with a CBD3. Spatially, the area tallies with the overall westward shift in centrality of the regional development pattern. It also provides a new platform to leverage development potential spurred by the new and improved transport connections extending from the traditional CBD to the PRD east and west.

New Territories North (NTN) – through comprehensive planning and more efficient use of the brownfield sites and abandoned agricultural land in the New Territories, developing the NTN would provide land for building new communities and developing modern industries and industries preferring a boundary location while improving the living environment of the existing area. A new town at Heung Yuen Wai/Ping Che/Ta Kwu Ling/Hung Lung Hang/Queen's Hill, together with two potential development areas at San Tin/Lok Ma Chau and Man Kam To have been identified.

Please refer to the Annexes for details of the preliminary concepts of the two SGAs.

Conceptual Spatial Framework

Supporting Transport Network for the ELM and the NTN

Subject to further study, both SGAs will be supported by strategic transport infrastructure in the forms of railway and highway (see plan on pages 66 and 67).

ELM

Given the potential population and employment opportunities at the proposed ELM including CBD3, it is crucial to connect the ELM with the existing urban districts through a strategic transport network. Subject to further detailed study, railway would be the backbone transportation mode to internally connect the major components of the ELM, while externally connecting to Hong Kong Island West, Kowloon West and North Lantau, and further with the NWNT via the HKBCF Island, thereby forming a new strategic railway corridor between the NWNT and the Metro Areas via Lantau and the ELM. A new strategic highway corridor will also be required to connect the ELM eastwards to Hong Kong Island West and northwards to the northeast Lantau/North Lantau Highway, which could then be further connected to the NWNT. It would also provide alternative access to the airport and the NWNT. The connection of the ELM to Mui Wo and the North Lantau Highway would be a potential linkage for the even longer term, and subject to the development scale of the ELM.

Subject to transport need and detailed study, the proposed NWNT–Lantau–Metro Rail Corridor may be extended northward to Shenzhen West for further connectivity and functional integration between Hong Kong West and Shenzhen. This corridor would not only be important in supporting the ELM and North Lantau development, but it would also help enhance the resiliency of the airport connection and provide critical connectivity between the metro core of Hong Kong and major growth poles in the PRD Region, thereby buttressing Hong Kong's role as a key city in the Region.

NTN

The Northern Link (NOL), which is recommended under the Railway Development Strategy 2014, would serve NTN development in the west. Depending on the scale of NTN development and subject to further study, a new railway scheme would be required to support NTN development in the east. For the highway network, if we adopt the development scenario with a lower population, the maximum employment and a balanced population level in the NTN would not worsen the peak hour traffic demand in the Tai Lam Tunnel and on the Tolo Highway in general. However, the ultimate phase of development under the scenario with more population would inevitably increase traffic loading of these two strategic highways. Hence, the north-south road linkage would need to be improved under this scenario.

East Rail Line

Conceptual Spatial Framework

Preliminary Broad Information for the ELM and the NTN

	ELM "Creating a new metro front"	NTN "Developing the New Territories North"
Development Area	About 1,000 ha (largely through reclamation in the waters near Kau Yi Chau (KYC) and the Hei Ling Chau (HLC) Typhoon Shelter, and making better use of the underutilised land in Mui Wo (MW))	About 720 ha (land-based, for more efficient use of brownfield sites and abandoned agricultural land in the New Territories)
Population	About 400,000 – 700,000	About 255,000 or 350,000
Employment	About 200,000	About 215,000
Key Environmental Concerns	■ Potential air quality impact due to possible strategic road links ■ Hydrodynamic impact, marine ecology, loss of marine water landscape and wetlands (impacts on coral areas around KYC and HLC and on wetlands, and watercourses with high ecological value in the MW fringe should be avoided)	■ Potential air quality impact due to possible strategic road links ■ Reuse and export of treated sewage effluent to minimise pollution impact on the Deep Bay ■ Possible degradation of rural landscape characters, but opportunity to enhance degraded brownfield sites
Social	■ Relatively lower social impact as reclamation involves no existing development ■ Adopt the rural-urban-nature integration approach to minimise impacts on the existing rural settlements in MW ■ Create considerable and diverse employment	■ Adopt the rural-urban-nature integration approach to minimise impacts on the existing rural settlements ■ Some existing local businesses and village settlements may still be affected ■ Create employment at the boundary location
Economic Benefits	■ A third CBD ■ Synergies with CBD in Central, Lantau development and new strategic infrastructure ■ Enhance resilience of access to the airport and the NWNT	■ Land for modern logistics and other special industrial uses at the boundary location
Government Investment (Note: No estimated investment cost due to preliminary stage)	■ Mainly involving reclamation and new infrastructure as well as the relocation of correctional and related facilities on HLC to ensure secured and smooth operation ■ More strategic infrastructure required	■ Mainly involving land resumption, compensation, clearance, re-housing, relocation, site formation and associated infrastructure ■ Strategic transport infrastructure required for larger scale development
Study Progress	Strategic study to be carried out	Preliminary feasibility study undertaken
Implementation Approach	Comprehensive approach with upfront transport and infrastructure provision	Incremental development approach involving clearance, land resumption, re-housing and relocation, and progressive transport and infrastructure provision

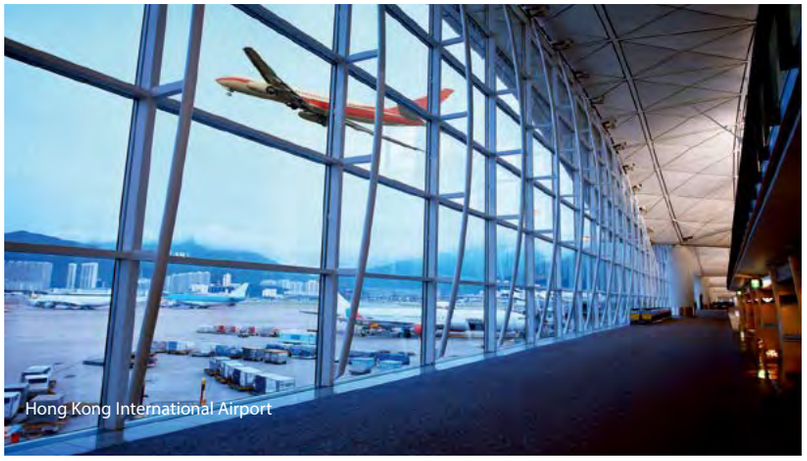
Conceptual Spatial Framework

Three Primary Axes

Western Economic Corridor – with various types of strategic transport infrastructure*, the western part of the territory will become an unparalleled international and regional gateway to Hong Kong. Coupled with strategic projects such as the North Commercial District on Airport Island, Topside Development at the HKBCF Island of the HZMB, business/commercial hub in the Tung Chung New Town Extension, commercial/modern logistics development in the Hung Shui Kiu NDA and modern logistics development in Tuen Mun West, a Western Economic Corridor will emerge. The proposed ELM will further fortify the Corridor. This Corridor is well placed to embrace many future economic opportunities arising from the Guangdong Free Trade Zones and the "Belt and Road" initiatives. With the new employment opportunities, the large population of the NWNT could have more jobs closer to home.

Eastern Knowledge and Technology Corridor – this Corridor comprises six universities (i.e. the Chinese University of Hong Kong, City University of Hong Kong, Education University of Hong Kong, Hong Kong Baptist University, Hong Kong Polytechnic University and Hong Kong University of Science and Technology), industrial and service support centres such as InnoCentre and the Hong Kong Productivity Council, and high-technology and knowledge- based industries such as data centres, R&D institutes, science park, industrial estates, etc in Kowloon Tong, Tseung Kwan O, Sha Tin, Tai Po, Kwu Tung North and the Lok Ma Chau Loop. A site near the future Liantang/Heung Yuen Wai Boundary Control Point will be explored for a new anchor use in the Corridor for possible science park/industrial estate development. The Ma Liu Shui development will offer further potential for development of R&D, higher education, housing and/or other uses. This Corridor could be connected to the CBD2 in Kowloon East complementing the innovation and technology sector, small and medium enterprises and a growing number of start-ups.

* Including the Hong Kong International Airport and the Three-Runway System under construction, the Hong Kong-Shenzhen Western Corridor, the River Trade Terminal and other elements of future strategic transport infrastructure (e.g. the Tuen Mun-Chek Lap Kok Link and the HZMB), etc.


Hong Kong International Airport


Hong Kong Science Park

InnoCentre

Northern Economic Belt –the Belt commands a strategic location with the presence of six existing boundary crossings and one under construction. It is also close to Shenzhen, which is strong in R&D and technological development. Spanning from Lok Ma Chau in the west to the future Liantang/Heung Yuen Wai Boundary Control Point in the east, the Belt will be suitable for warehousing, R&D, modern logistics and other support uses and emerging industries, thereby creating jobs for existing and future communities in the area. The NTN, the proposed SGA, is intended mainly for residential, commercial and other special industrial developments. The proposed science park/industrial estate near the future Liantang/Heung Yuen Wai Boundary Control Point will be at the convergence of the Northern Economic Belt and the Eastern Knowledge and Technology Corridor, thereby inducing greater synergy between the two corridors.

Further Considerations

The ELM and the NTN at their maximum scale could provide a reasonable land reserve to meet demand and to allow us to respond in a timely fashion to any outstanding land requirements beyond 2030. On this basis, a flexible implementation approach will be needed as one or more development components of the two strategic growth areas could be independently triggered to meet the requirement identified nearer the time. Also, the pace and quantity of the development required would be closely monitored so that we could become more prepared for any additional and/or unexpected demand.

Functionally, the new metropolitan business core, the two SGAs and three primary axes, together with other planned/committed projects in the New Territories would prepare Hong Kong for sustainable growth and a better living environment. The territorial spatial planning framework could also help redress the existing unbalanced spatial distribution of homes and jobs for the territory by creating more jobs in the New Territories. Based on the planned population/employment, the relative proportion of population and jobs in the Metro Area would broadly reduce to about 45% and 62% respectively. The corresponding share in the New Territories would be about 55% for population and about 38% for employment. The NWNT-Lantau-Metro Transport Corridor associated with the ELM would also support the Western Economic Corridor and improve the overall connectivity of the western part of Hong Kong at both the local and regional levels.

Kwai Chung Container Terminal

Hung Shui Kiu

Photo Credit: Hong Kong Science and Technology Park

Highlights of Hong Kong 2030+

Vision-driven Capacity creation for sustainable growth

Built-up area:

from **268km²** to **324km²**

Natural areas including ecologically sensitive areas and waters

Existing protected and preserved areas/waters plus such planned areas/waters:

Terrestrial environment - from **540km²** to **545+km²**

Marine environment: from **24km²** to **84+km²**

Building Block 1: Planning for a Liveable High-density City

- Quality living environment supportive to all ages
- Green-blue assets and a healthy city for wholesome living
- Urban regeneration and facelift

Future G/IC land per person provision target: **3.5m²**

(Currently 2.2m² for Sha Tin New Town)

Future open space per person provision target:

from **min. 2m²** per person to **min. 2.5m²** per person

Building Block 2: Embracing New Economic Challenges and Opportunities

Future provision of economic space

Grade A Offices GFA from **about 9Mm²** to **14M+m²**

Market-driven Industries and Special Industries GFA from **about 20Mm²** to **29Mm²**

Knowledge and Technology Corridor (with R&D, science park and industrial estate uses)

Building Block 3: Creating Capacity for Sustainable Growth

- Sustainable use of land resources to meet social and economic development needs
- Buffer in development capacity for better living space
- Conserve natural assets and create environmental capacity
- Enhanced transport and infrastructure capacity

Enahnced economic capacity and jobs closer to home

Jobs in the non-Metro Area

from **24%** to **38%**

Compact and rail-based development

More population and jobs within railway catchment

(75% and 85% respectively under the Railway Development Strategy 2014 proposals)

Smart, green and resilient city strategy

- Smart use of land resources
- Smart mobility
- Integrated smart, green and resilient infrastructure

Conceptual Spatial Framework for Hong Kong 2030+

1 Metropolitan Business Core

- Three complementary CBDs and secondary nodes to strengthen Hong Kong's position as a global financial and business hub
- Land and space for businesses to move up the value chain, to expand and to start up

2 Strategic Growth Areas

- Comprehensive planning with a good mix of uses/facilities
- Quality living, work places and business environment
- Economic vitality
- Better home-job balance
- Thriving community
- Balance with nature

3 Emerging Development Axes

- Western Economic Corridor
- Eastern Knowledge and Technology Corridor
- Northern Economic Belt
- Strategic positioning to cater for different economic sectors and to capitalise on locational advantages and the synergy

Supporting Transport Network

- Enhanced urban mobility and transport networks
- Enhance connectivity between metro core and Lantau
- Alternative connection to the airport and NWNT

Endnotes

Hong Kong 2030+ has taken into consideration a portfolio of available data and past and known trends in making assumptions and estimates. Yet, the world is highly dynamic, and so is Hong Kong. Even though we can make informed assumptions, it is extremely difficult, if not impossible, to gauge the exact pace, extent and nature of change. In particular, innovation and technological advancement may have significant impacts on the ways in which we live, work, do business, pursue leisure, etc. in the long term, and hence affect land use requirements. Land and space would invariably be the carrier of all activities. The crux is to plan in advance and formulate a robust and flexible territorial development strategy for us to embrace change and capture new opportunities.

Choices and Considerations for the Community

On Liveability

Hong Kong could be a high-density and liveable city. Key strategic directions are proposed in Building Block 1. What are your views on some of the key issues?

- To improve the living environment, will the community prefer providing more public spaces and public facilities? Are we prepared to accept the land and cost implications?
- In planning for the development capacity, should we include in the buffer a possibility to improve living environment, e.g. by enhancing home space, public space and community facilities?
- To facilitate ageing in place in an ageing Hong Kong, should we also encourage the adoption of universal design in private residential developments? Should more housing options be provided by the public and private sectors? Are we prepared to accept the land and cost implications?
- While redevelopments will continue to require private initiative, should the Government step up urban regeneration efforts and policies in view of the huge ageing building stock? Are we prepared to accept the social, land and cost implications?

On Economy

For Hong Kong to prosper as Asia's World City, key strategic directions are proposed in Building Block 2. What are your views on some of the key issues?

- Should we provide more industrial land to facilitate innovation and technology development, "re-industrialisation" and the return of our manufacturing sector? Are there any particular industrial activities that we need to cater for in land use planning?
- Should we expand our central business core in the Metro Area?
- How should we help move our economy up the value chain and provide employment opportunities with a range of skills through land use planning?
- Noting the increasingly connected global economy, should we explore the option of looking beyond our own territory to expand our economic hinterland and to create new platforms for economic activities?

On Creating Capacity for Sustainable Growth

To pursue sustainable growth, we seek to increase development capacity and to enhance our environmental capacity in Building Block 3. We also propose to adopt a smart, green and resilient city strategy. What are your views on some of the planning strategies?

- Should we opt for a vision-driven capacity-creating approach to plan in advance for our social and economic development needs?
- Should we also create a land reserve for the unforeseen needs and changing circumstances which will require additional upfront capital investments, manpower resources and construction industry support?
- Should we provide more transport infrastructure which would take up considerable land and investment? Or should we encourage greater use of public transport? What are the possible measures to curb private vehicle growth and use?
- Should we conserve the ecologically sensitive areas?
- While conserving the ecologically sensitive areas, should we also release land adjoining the existing built-up areas with low ecological/buffering/recreation value for compatible developments? Should we create new Stragetic Growth Areas?
- Should we step up efforts to build a smart, green and resilient city to prepare for the urban challenges of the 21st century including climate change?

“In the light of our aspirations and challenges ahead, let’s put our heads together to consider what we should plan for Hong Kong and make wise choices for the community.”

On the Conceptual Spatial Framework

After decades of development, there are few solution spaces in the main urban area unless we hasten redevelopment and further intensify new developments. What are your views on the proposed conceptual spatial framework?

- Should we retain a compact high-density city form to conserve our protected and ecologically sensitive areas?
- Should we look for infill opportunities in existing built-up areas to take advantage of existing connectivity and clustering of activities, or create new SGAs to help decentralise population and economic activities?
- What are your views on the strategic positioning of the three development axes and the two SGAs? What else should we do to drive these new axes and SGAs?

Your other views and considerations are also welcome.

We Welcome Your Views

To strengthen Hong Kong's position as a liveable, competitive and sustainable "Asia's World City", the Hong Kong 2030+ study has examined the updated statistics, policies, and aspirations of the community.

We sincerely encourage you to consider the key discussion points in this booklet and send us your views **on or before 30 April 2017**. Apart from the issues covered here, you are also welcome to express any other valuable views relevant to long-term spatial development in Hong Kong through the following channels :

Address	Strategic Planning Section, Planning Department, 16/F North Point Government Offices, 333 Java Road, North Point, Hong Kong
Telephone	+852 2231 4726
Fax	+852 2868 4497
Email	enquiry@hk2030plus.hk

During the public engagement period, a variety of public engagement activities, including briefings, sharing sessions, forums, topical discussions, workshops, guided visits and exhibitions, will be organised.
Please visit our website for details.

This booklet (with attachments on the preliminary concepts of the ELM and the NTN), a pamphlet, relevant topical papers, and other information on Hong Kong 2030+ are also available from the study's website.

Website www.hk2030plus.hk

Disclaimer: A person or an organisation providing any comments and suggestions to the Planning Department on the "Hong Kong 2030+: Towards a Planning Vision and Strategy Transcending 2030" will be deemed to have given consent to the Planning Department to partially or wholly publish those comments and suggestions (including the names of the individuals and organisations). If you do not agree to this arrangement, please state so when providing your comments and suggestions.

香港 HONG KONG 2030+

Towards a Planning Vision and Strategy Transcending 2030

發展局 Development Bureau

規劃署 Planning Department

OCTOBER 2016

ANNEX B

ELM

香港 HONG KONG 2030+

Towards a Planning Vision and Strategy Transcending 2030

Preliminary Concepts for the East Lantau Metropolis

1 Overview

Background

1.1 Planning for strategic infrastructure projects, such as Hong Kong-Zhuhai-Macao Bridge (HZMB), Tuen Mun-Chek Lap Kok Link, Hong Kong International Airport (HKIA) Three-Runway System and Tung Chung New Town Extension, has commenced since the publication of the Revised Concept Plan for Lantau in 2007. In the light of a further strengthened role of Lantau in Hong Kong, we should seek to harness the potential brought by the new infrastructure, explore new development opportunities, and create greater synergy with the existing and planned projects on Lantau.

1.2 Owing to the continued tight supply of developable land in Hong Kong, and acknowledging the long lead time required for land production, the Government has been striving to increase land supply to meet the population growth and to sustain economic and social development of Hong Kong through a multi-pronged land supply strategy. In 2014, the study on 'Enhancing Land Supply Strategy: Reclamation Outside Victoria Harbour and Rock Cavern Development' (ELSS) aimed to, among others, assess the feasibility of enhancing land supply through reclamation outside Victoria Harbour. According to the ELSS, the central waters of Hong Kong have been identified as having good potential for artificial island development since it is less ecologically sensitive than the eastern waters of Hong Kong which are bounded by shorelines of high ecological value, and the western waters which are heavily constrained by a number of major infrastructure projects. Taking on board the findings of the ELSS, the 2014 Policy Address announced the initiative to explore ways to further develop the eastern waters off Lantau Island and neighbouring areas, with a view to developing an East Lantau Metropolis (ELM) for accommodating new population and a core business district (CBD) in addition to Central and Kowloon East for promoting economic development and providing job opportunities in Hong Kong.

1.3 The proposed ELM will be situated in mid-way between Hong Kong Island and the main island of Lantau (**Plan 1**). The concept is to create artificial island(s) by reclamations

Plan 1: Broad Location of the Proposed East Lantau Metropolis

in the waters near Kau Yi Chau and the Hei Ling Chau Typhoon Shelter, and to make better use of the underutilised land in Mui Wo.

1.4 The ELM, positioned as a long-term strategic growth area, is included in Lantau Development Advisory Committee's[1] (LanDAC) first-term work report submitted to the Chief Executive in January 2016. The development scale and feasibility of the ELM are subject to further detailed study. This document aims to illustrate some preliminary analysis and planning concepts of the development of the ELM.

(For Indication Only)

Vision

1.5 The ELM and the New Territories North (NTN) are two strategic growth areas proposed under the "Hong Kong 2030+: Towards a Planning Vision and Strategy Transcending 2030" (Hong Kong 2030+) to meet the long-term social, economic and environmental needs of Hong Kong beyond 2030.

1.6 Being a potential long-term strategic growth area, the ELM would be planned as a smart, liveable and low-carbon development cluster with the third core business district (CBD3) for Hong Kong through provision of sizeable land for housing and economic uses, and would generate ample employment opportunities. The ELM and its supporting transport infrastructure will facilitate the formation of a strategic transport link to enhance the connectivity between Hong Kong Island and Lantau, particularly the HKIA and Hong Kong Boundary Crossing Facilities (HKBCF) of HZMB. It could also help support Hong Kong's overall population and economic growth, and achieve a more balanced spatial development pattern for the territory.

[1] The Chief Executive announced in the 2014 Policy Address the establishment of the LanDAC with a view to advising the Government on the opportunities brought by various major infrastructure proposals in Lantau, as well as the synergy effects of Hong Kong and the Pearl River Delta, and to formulate an overall economic and social development strategy for Lantau in balancing development and conservation.

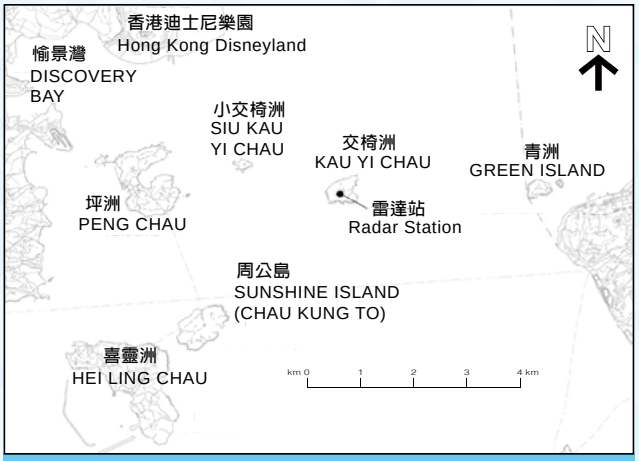
2. Existing Conditions

2.1 The ELM will be located in the central waters between Hong Kong Island and Lantau. There are a few islands with a fair amount of developments nearby (such as Cheung Chau and Peng Chau) and others with correctional and related facilities (such as Hei Ling Chau and Shek Kwu Chau) while most islands are uninhabited (such as Kau Yi Chau and Sunshine Island). Some marine facilities including fairways, anchorages and typhoon shelter are also found in the central waters.

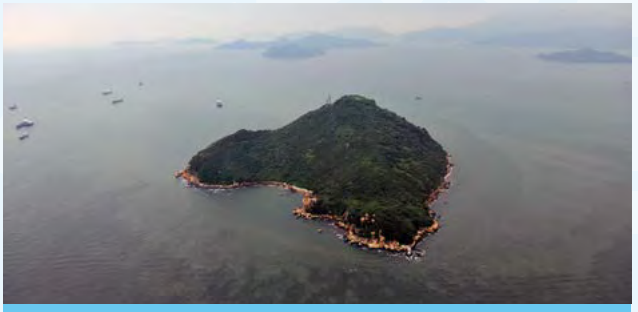
Kau Yi Chau

2.2 Kau Yi Chau (**Plan 2**), having a land area of about 23 ha, is currently uninhabited with only a radar station held under a Government Land Allocation and zoned "Government, Institution or Community (1)". The planning intention of the remaining area, zoned "Conservation Area" ("CA"), is to conserve the existing natural landscape and character of Kau Yi Chau. Part of the central waters falls in areas zoned "Other Specified Uses" ("OU") annotated "Container Terminal" and "Container Back-up Area" which were once intended for the long-term expansion of the container port and provision of port-related back-up facilities. However, container terminal use is no longer considered compatible with the strategic planning direction for tourism and recreational uses in northeast Lantau. Alternative locations for the future container terminal in other parts of the territory together with the need were examined under "Study on the Strategic Development Plan for Hong Kong Port 2030" (Port 2030 Study).

2.3 To the northwest of Kau Yi Chau is Tsing Chau Tsai Peninsula, including Penny's Bay which is predominantly occupied by the Hong Kong Disneyland. To the west are the uninhabited island of Siu Kau Yi Chau and the rural township of Peng Chau. To the immediate north, east and south are the Western Anchorages, Kau Yi Chau Dangerous Goods Anchorage (south of Kau Yi Chau) and the Western Fairway, which is one of the busiest fairways in Hong Kong waters.



Plan 2: Site Plan of Kau Yi Chau



Kau Yi Chau is located in the Central Waters between Hong Kong Island and Lantau

Hei Ling Chau

2.4 Hei Ling Chau (**Plan 3**) with an area of about 190 ha is primarily Government land. On the island, there

are four correctional facilities (including Hei Ling Chau Correctional Institution, Hei Ling Chau Addiction Treatment Centre, Lai Sun Correctional Institution and Nei Kwu Correctional Institution, with a total capacity of about 1,640 places; post-tied departmental quarters, and a staff mess), a dog kennel; basic infrastructure/utility facilities such as telephone exchange, telephone transformer and reservoir. The remaining part of the island is largely covered by lush greenery.

2.5 Hei Ling Chau is gazetted under the legislation as restricted/closed area under the management of the Correctional Services Department (CSD). Prior approval from or arrangement with CSD is required for social and official visits to the relevant correctional facilities. There is an existing pier at the north-western corner of Hei Ling Chau providing limited ferry services from Central via Peng Chau.

Plan 3: Site Plan of Hei Ling Chau

2.6 The Hei Ling Chau Typhoon Shelter with an area of about 77 ha is located to the immediate south-west of the island and is the only typhoon shelter in Hong Kong which could accommodate vessels with an overall length exceeding 50m and up to 75m. However, due to its remoteness, its utilisation is low in comparison with other typhoon shelters at or near Victoria Harbour.

Hei Ling Chau Typhoon Shelter

Existing Conditions of Hei Ling Chau

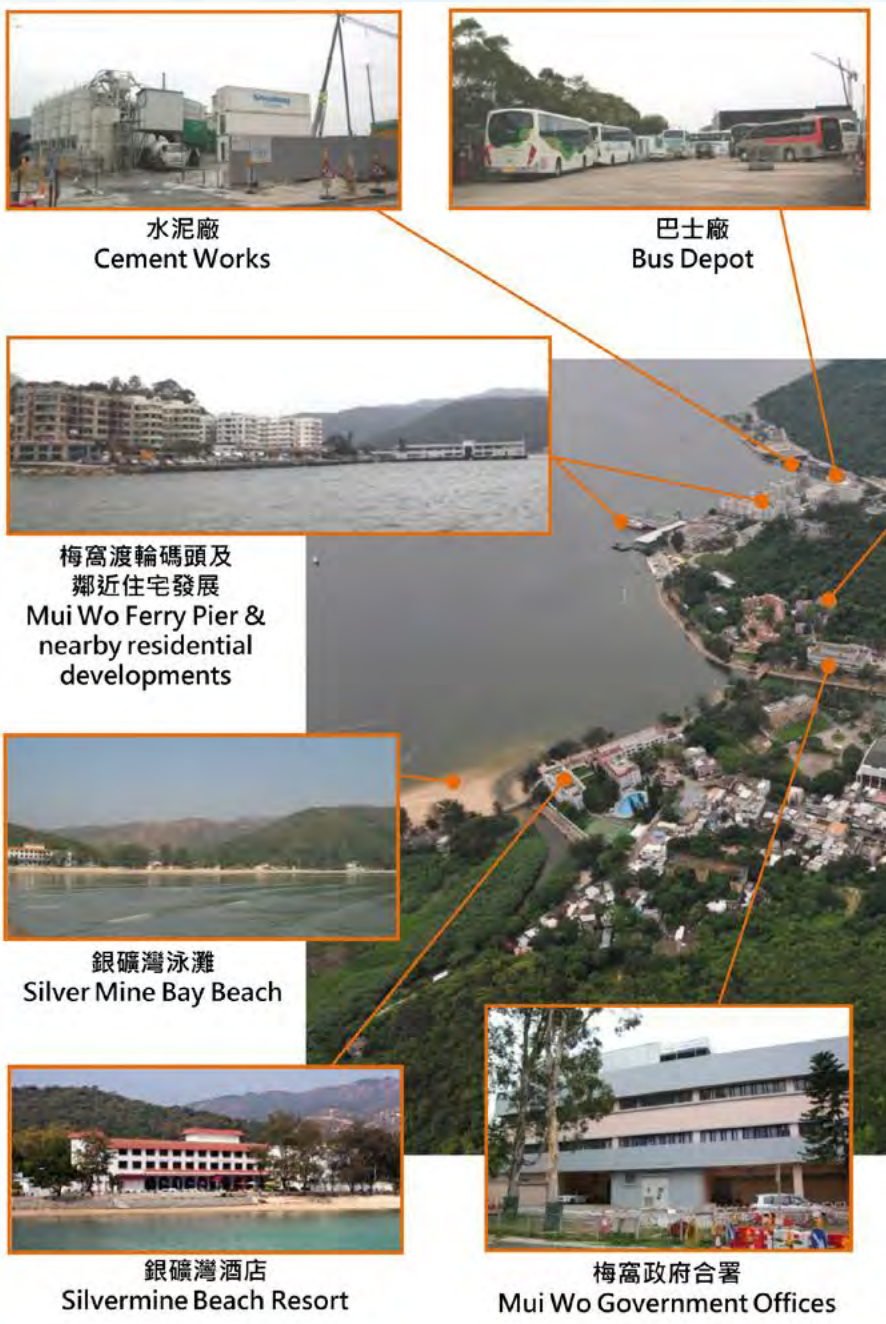
2.7 To the northeast of Hei Ling Chau is the uninhabited island of Sunshine Island and to the northwest is the Mui Wo township. Further south near Chi Ma Wan Peninsula is the Cheung Sha Wan Fish Culture Zone (FCZ), which is designated by the Agriculture, Fisheries and Conservation Department (AFCD) and is the second largest FCZ in Hong Kong.

Mui Wo

2.8 Mui Wo, overlooking Silver Mine Bay Beach, is largely a rural township with a population of about 5,900 in 2015. Apart from village settlements[2], there are also medium-density public housing (e.g. Ngan Wan Estate and two Subsidised Sale Flats developments under construction), low- to medium-density private residential developments, community facilities (e.g. Government offices, Mui Wo Municipal Services Building comprising a market, a library and a sports centre, Mui Wo Fire Station and South Lantau Police Station, etc.) as well as active and fallow agricultural land. Small-scale commercial and recreational facilities are also found. The majority of the low-lying area in Mui Wo is private land while the hilly areas are largely Government land (**Plans 4 and 5**).

2.9 Mui Wo is connected with Tung Chung New Town, HKIA and other parts of Lantau via South Lantau Road and Tung Chung Road which are restricted roads requiring permits for access. Ferry services provide direct connection between Mui Wo and

[2] There are eight recognised villages in Mui Wo, namely. Luk Tei Tong, Tai Tei Tong, Chung Hau, Mui Wo Kau Tsuen, Pak Ngan Heung, Mang Tong, Tung Wan Tau and Man Kok Tsui.



Plan 4: Existing Conditions of Mui Wo

Central as well as other parts of Lantau and outlying islands, such as Discovery Bay, Chi Ma Wan, Peng Chau, etc.

2.10 The Silver Mine Bay Beach and the Silvermine Beach Resort are located at the northern waterfront. The ferry pier and a number of Government uses and utilities (such as bus depot, cement works, Mui Wo Refuse Transfer Facility, Mui Wo Sewage Treatment Works and a helicopter landing pad) are located along the reclaimed land on the southern waterfront. Uphill in the south is the Silver Mine Bay Water Treatment Works (WTW), which is a Potentially Hazardous Installation (PHI) with a 1km consultation zone covering a significant portion of Mui Wo.

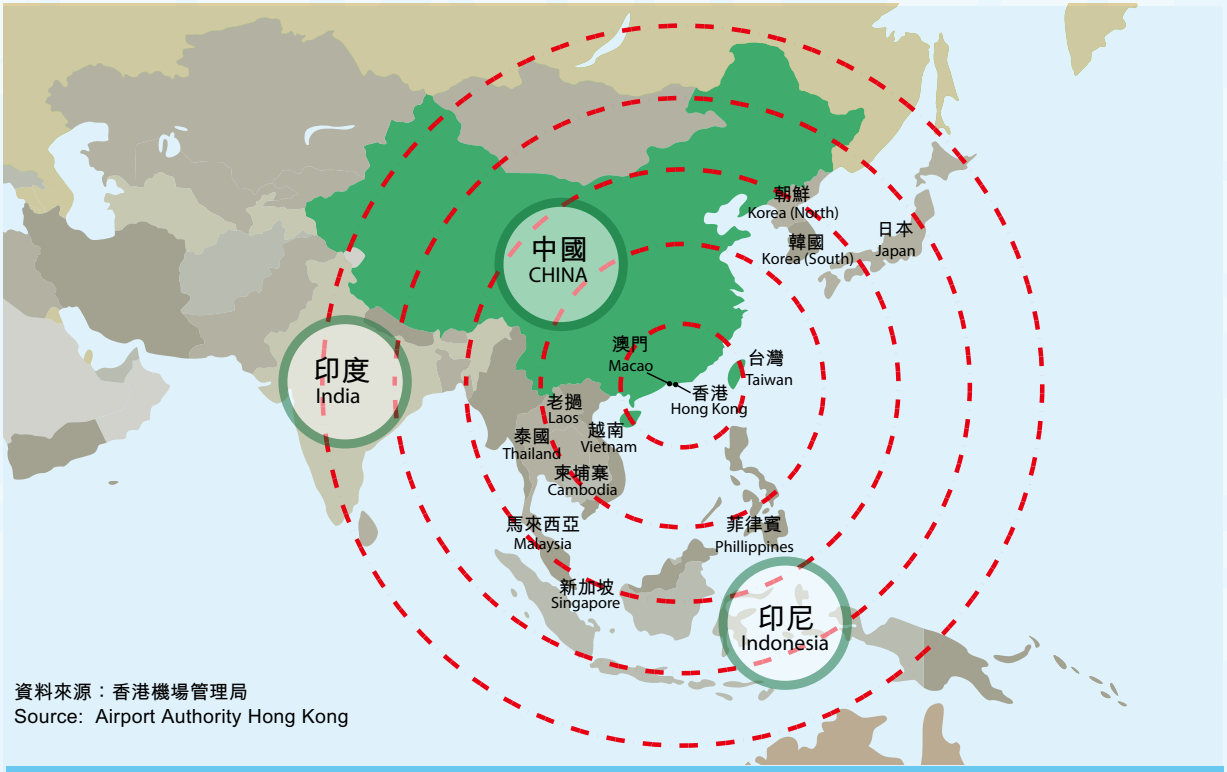
Plan 5: Site Plan of Mui Wo

3. Opportunities & Constraints

I. Opportunities

A Strategic Location

3.1 The ELM will enjoy the geographical advantage of being close to the traditional CBD (i.e. Central and the adjoining areas on Hong Kong Island) and to Lantau where a number of strategic infrastructure and urban developments are in the pipeline or under planning. In addition to the North Commercial District on the airport island, the topside commercial development on the artificial island of the HKBCF of HZMB, Siu Ho Wan development and Sunny Bay reclamation, the ELM would buttress Lantau's position as the confluence of the Greater Pearl River Delta and the "double gateway" of Hong Kong rendered by the presence of the HKIA and HZMB.

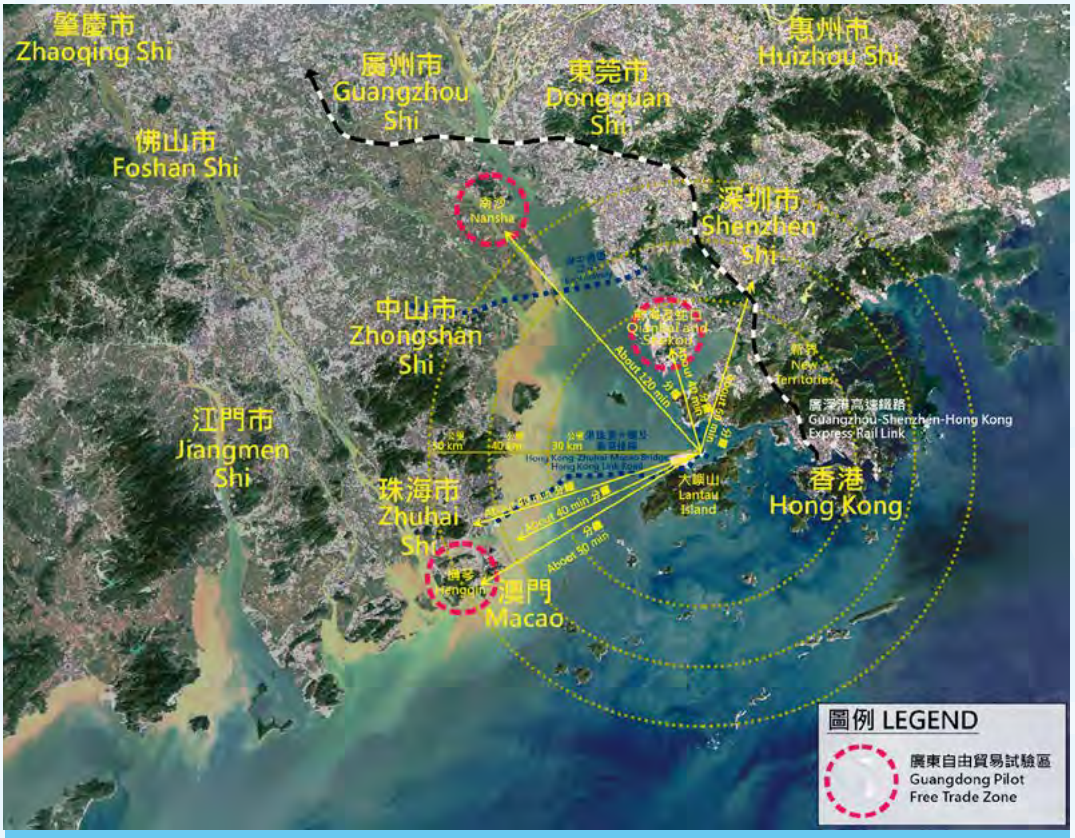


資料來源：香港機場管理局
Source: Airport Authority Hong Kong

International Transport Hub - Reaching Half of the World Population within Five Hours' Flying Time

3.2 To the east, Kau Yi Chau is about 4km from Hong Kong Island West which is equivalent to the distance between Central and North Point. With new strategic transport infrastructure, the ELM could be connected to the traditional CBD conveniently and efficiently, hence reinforcing the existing business node around Victoria Harbour as well as creating a new metro-front in the territory.

3.3 Taking the advantage of enhanced connectivity, proximity to the traditional CBD, easy access to the HKIA and HZMB, Lantau and the central waters exhibit great potential for expanding and diversifying Hong Kong's economic capacity.



One-hour Inter-City Traffic Circle within the Greater Pearl River Delta Region

B Scope for Sizeable Reclamation

3.4 Chinese White Dolphins are found in the western waters and Finless Porpoises are active in the southern waters of Lantau, the central waters are relatively less ecologically sensitive. Subject to addressing the relevant constraints, sizeable reclamation in the central waters would provide ample opportunities for comprehensive land use planning and design.

3.5 In comparison with urban renewal and rezoning, developing the ELM through reclamation would not affect existing development or settlement.

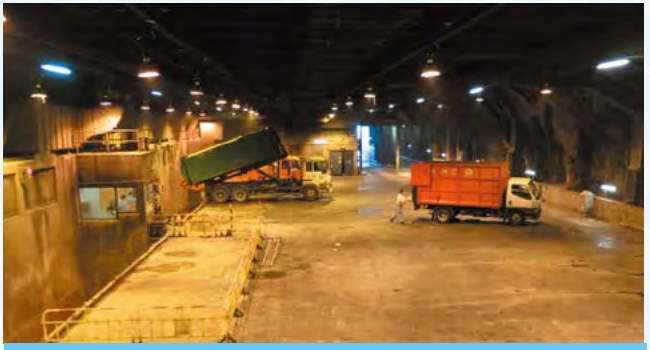
C Undeveloped and Underutilised Space/Land

3.6 The northeast Lantau was previously identified as the primary area for expansion of Hong Kong's port facilities. The draft North-East Lantau Outline Zoning Plan with port development as the major development theme was first gazetted in 1995. In view of the port cargo forecast and the strategic planning direction for tourism and recreational uses in northeast Lantau, the need and alternative location for the future port facilities have been examined under the Port 2030 Study. As such, the waters previously identified for container terminals at Kau Yi Chau present potential for other uses.

Kau Yi Chau is about 4km from Hong Kong Island West

3.7 Reclamation at and near the currently underutilised Hei Ling Chau Typhoon Shelter (about 77 ha) at an appropriate scale could provide more developable land. On the other hand, the relocation of the existing correctional and related facilities in Hei Ling Chau could help release about 20 ha of Government land ready for development subject to, amongst others, identification of suitable sites for relocation which can meet CSD's operational and security requirement as well as addressing the ecological concerns.

3.8 The underutilised land in the existing Mui Wo township and its fringe areas offers opportunities for upgrading and re-planning of the area. Moreover, the Government uses and utilities located at the southern waterfront (including sewage treatment works, cement works and bus depot, etc.) of about 3 ha could be consolidated or relocated to facilitate replanning of the area. As the Civil Engineering Development Department (CEDD) has identified a suitable site for rock cavern development at the hillside to the south of these existing facilities, the feasibility of accommodating the Government uses in rock cavern would be explored at a later stage.



The Island West Transfer Station - an example of Cavern Development in Hong Kong ©CEDD

D Housing Development

3.9 With enhanced connectivity and infrastructure, the potential sizeable artificial island(s) in the central waters provide opportunity for major urban development. Some of the underutilised Government land could also be replanned. For example, relocating the correctional and related facilities currently located in Hei Ling Chau and accommodating suitable Government uses in cavern will further release developable land for housing and other developments.

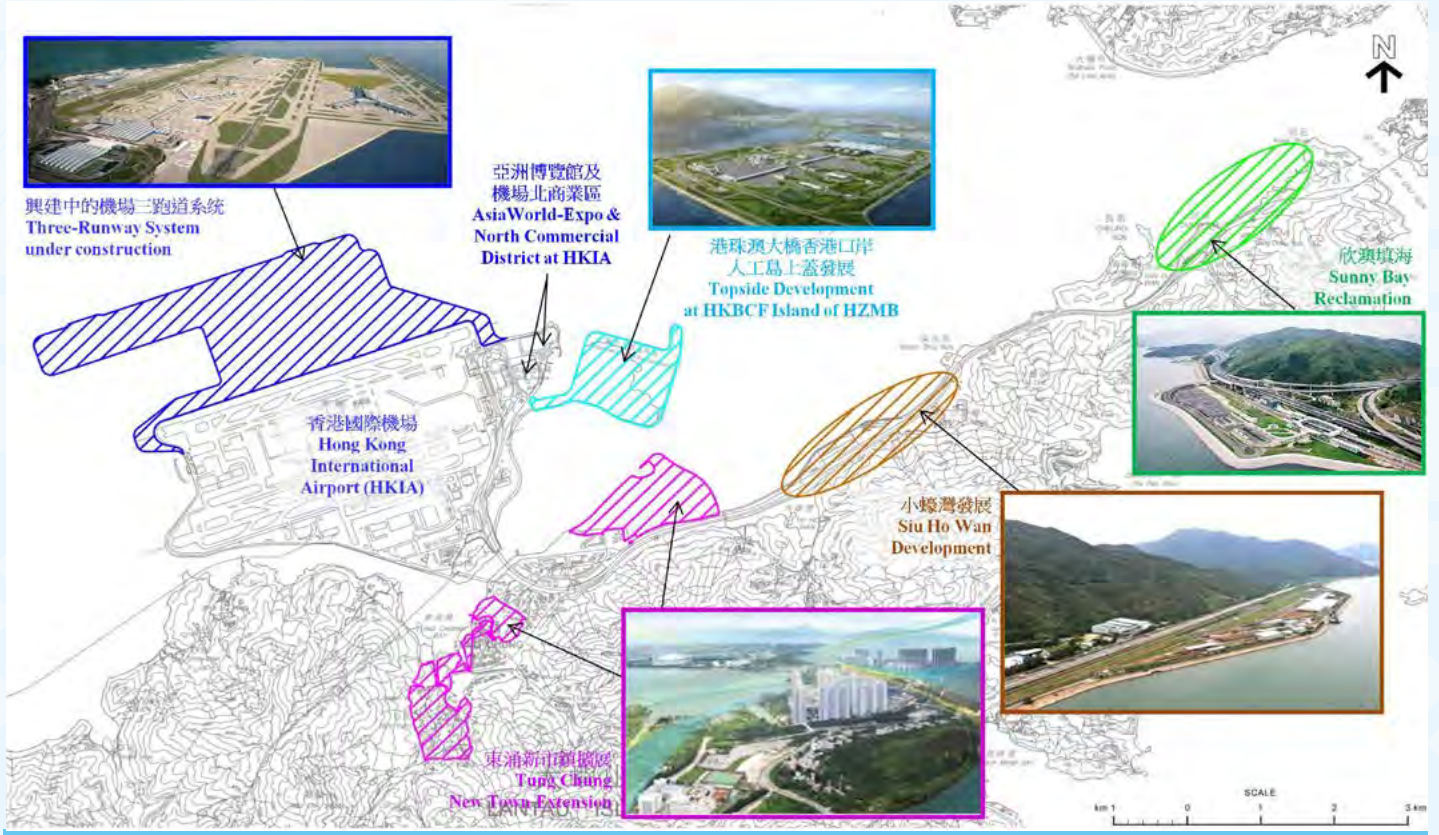
Provision of Land for Housing and other Developments

3. Opportunities & Constraints

E Economic Opportunities

3.10 With the creation of sizeable land through reclamation, the ELM has great potential to provide ample commercial floorspace for smart, innovative and quality premises, creating a financial and producer services hub with a variety of quality jobs which is strongly tied with the airport and Hong Kong's connector role in the region, capitalising on the new economic infrastructure on North Lantau.

3.11 The ELM is aimed to boost the economic development and employment opportunities in Hong Kong. The future development of the Southwest New Territories (SWNT) with a large amount of population and employment could lead to a more balanced development pattern in Hong Kong. The roles of the ELM and the traditional CBD as well as the commercial developments at the North Lantau Corridor (**Plan 6**) are complementary and synergistic.



Plan 6: Major Developments in North and Northeast Lantau (For Indication Only)

F Tourism, Heritage and Recreational Resources

3.12 The scenic sea views along the Mui Wo waterfront as well as the famous tourist spots, such as Silvermine Bay Waterfall and Silver Mine Bay Beach, are invaluable natural resources in Hong Kong. There is ample opportunity to promote eco-tourism and water sports in Mui Wo. For example, Silver Mine Bay Beach offers some water sports and coastal recreation facilities. The hillside in Mui Wo is also popular for hiking and outings. As such, there is scope to provide more diversified outdoor activities at Mui Wo for the enjoyment of local residents and visitors.

Silvermine Beach Resort and Silver Mine Bay Beach

3.13 Furthermore, the heritage attractions including graded historic buildings (such as Yuen's mansion, a compound with six Grade 2 historic buildings, and the watchtower of Luk Tei Tong which is a Grade 3 historic building), archaeological sites (viz. Chung Hau Archaeological Site and Mang Tong Archaeological Site), old village path to Nam Shan and the authentic recognised villages offer good potential for cultural heritage tourism, which could benefit the local economy.

Yuen's Mansion

G Improvement in Transport Infrastructure

3.14 Development of the ELM offers the opportunity to enhance the connectivity between the traditional CBD and Lantau (including HKIA), as well as the Northwest New Territories (NWNT), subject to further detailed study, including examination of the connections to Hong Kong Island West and Kowloon West.

II. Constraints (Plans 7 and 8)

A Ecological Constraints

3.15 Kau Yi Chau should be preserved as a conservation area. As some marine benthic species, i.e. coral communities, have been identified around the waters of Kau Yi Chau, consideration should be given to translocating the coral to suitable locations to compensate for the loss of coral areas as ex-situ mitigation for the development, if avoidance or minimisation of these impacts on the coral communities is not feasible.

3.16 According to AFCD, a significant land area at the central portion of Hei Ling Chau and the adjacent Sunshine Island provide habitat for the Bogadek's Burrowing Lizard which is a rare and endemic species with restricted distribution. Moreover, the northern coast of Hei Ling Chau is a key coral area which should also be duly protected. As such, the development footprint of Hei Ling Chau should primarily be on the newly reclaimed land, and development on the island should be confined to the areas of the existing correctional and related facilities.

Bogadek's Burrowing Lizard

3.17 In Mui Wo fringe, the existing fung shui woodland, the natural stream courses and the farmland scattered around the low-lying flatland that of ecological value should be preserved.

An Overview of Mui Wo

3.18 White-bellied Sea Eagle is a species of conservation concern. Green Island, to the northwest of Kennedy Town, is one of their breeding sites while Penny's Bay was also recorded in 2007 as one of their nesting locations.

White-bellied Sea Eagle ©AFCD

B Environmental Constraints

3.19 Potential impacts on water quality and hydraulics should be carefully examined during further study to avoid any adverse impacts of the reclamation and alignment of transport linkage between the ELM and Hong Kong Island West on the marine ecology and water quality within the surrounding waters.

3.20 Given the configuration of the Silver Mine Bay, any large-scale reclamation should be avoided to prevent potential adverse impact on water quality, hydrodynamics and the marine ecology. Since there are flight paths across the surroundings of Kau Yi Chau, the potential aircraft noise impact to the ELM would be taken into account in the early planning stage.

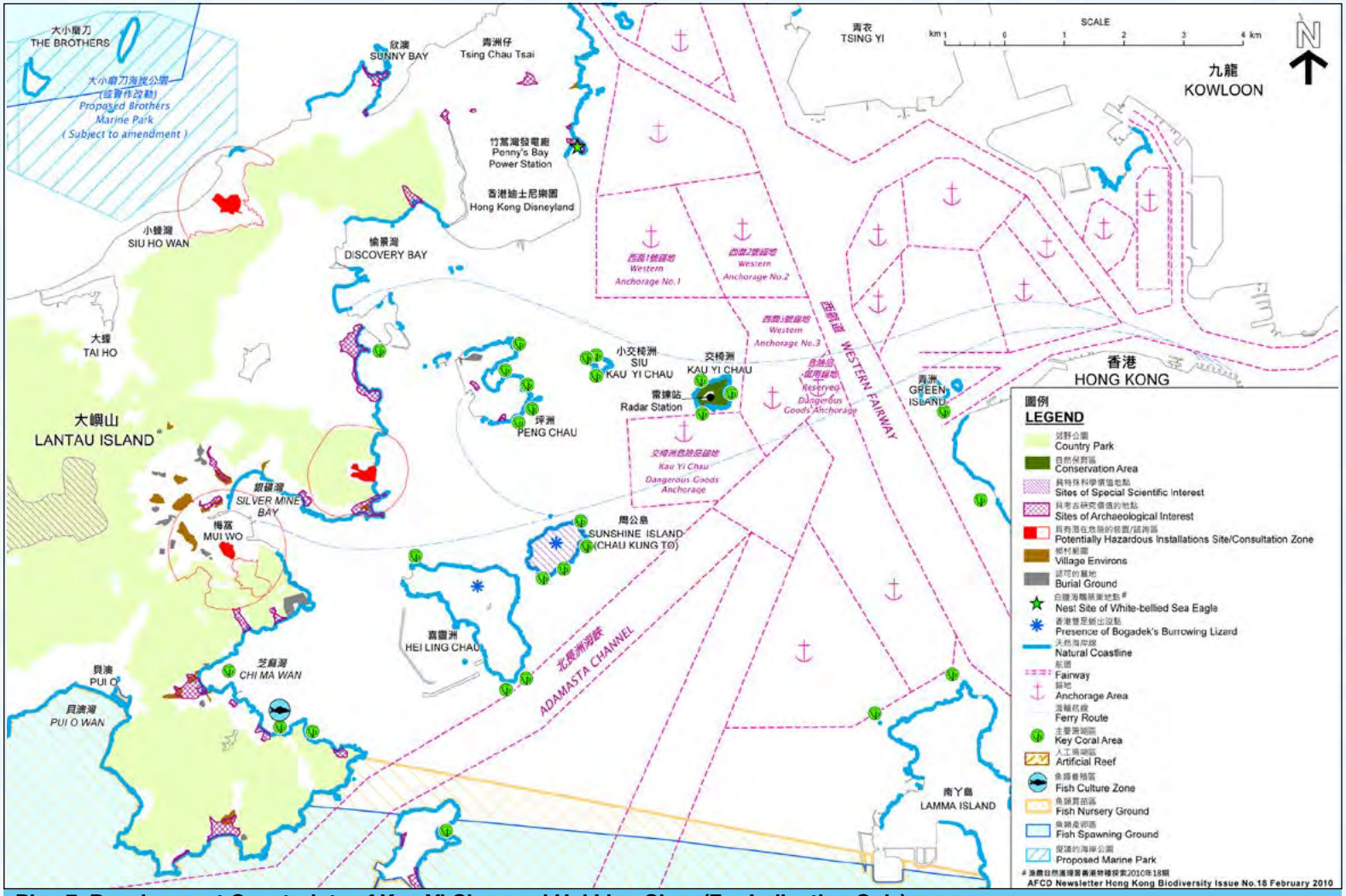
C Marine Constraints

3.21 Fairways and waterways near the waters to the east and south of Lantau are critical to operation of the port, navigation safety and marine traffic. Kau Yi Chau is about 600m from the Western Fairway, which is one of the busiest and vital fairways in Hong Kong. Large-scale reclamation may pose risks to the passing marine vessels due to reduced water body and congested fairways. It is also essential to provide adequate buffer between the reclamation and navigation fairway.

Busy Marine Traffic in Hong Kong

3.22 Major anchorages (including Kau Yi Chau Dangerous Goods Anchorage and Western Anchorage No. 3) may also be affected, which would likely require re-provisioning should they be displaced. Besides, the reclamation at and near Hei Ling Chau Typhoon Shelter would require either relocating the typhoon shelter to an alternative location or reprovisioning at a reduced scale. In short, the continued operation of the port, marine traffic and the safety of fairways should be ensured in the event of reclamation, and necessary mitigation measure should be provided.

3.23 The impact of reclamation on existing ferry routes, such as routes between Central and Mui Wo/ Peng Chau/ Discovery Bay, would be carefully assessed. On the other hand, new ferry services could be explored as an alternative transport mode.



Plan 7: Development Constraints of Kau Yi Chau and Hei Ling Chau (For Indication Only)

D Infrastructure Constraints

3.24 The potential reclamation site is in the middle of the central waters and there is a lack of transport or infrastructural facilities. Hei Ling Chau is a closed area and is only accessible to other areas via waterborne transport. The existing transport and other essential infrastructure are limited. Even in Mui Wo, the existing transport and supporting infrastructure, such as water supply, sewerage, electricity, waste disposal and other utilities, would not be able to cope with the substantial increase in population and activities envisaged in the ELM. As such, new transport and supporting infrastructure would be required to support the future development.

E Fisheries Resources

3.25 The reclamation and other associated marine works for the ELM may bring potential impacts to the fisheries resources as well as the capture fisheries and marine fish culture in the nearby waters. Its potential impacts would need to be further studied and examined.

F Local Constraints

3.26 Due to the presence of considerable private land under fragmented ownership, developments at Mui Wo may involve complicated clearance of scattered structures, land resumption and re-housing issues. Existing village environs, burial grounds, country parks, ecologically-sensitive areas (such as fung shui woodland) and heritage sites should also be preserved.

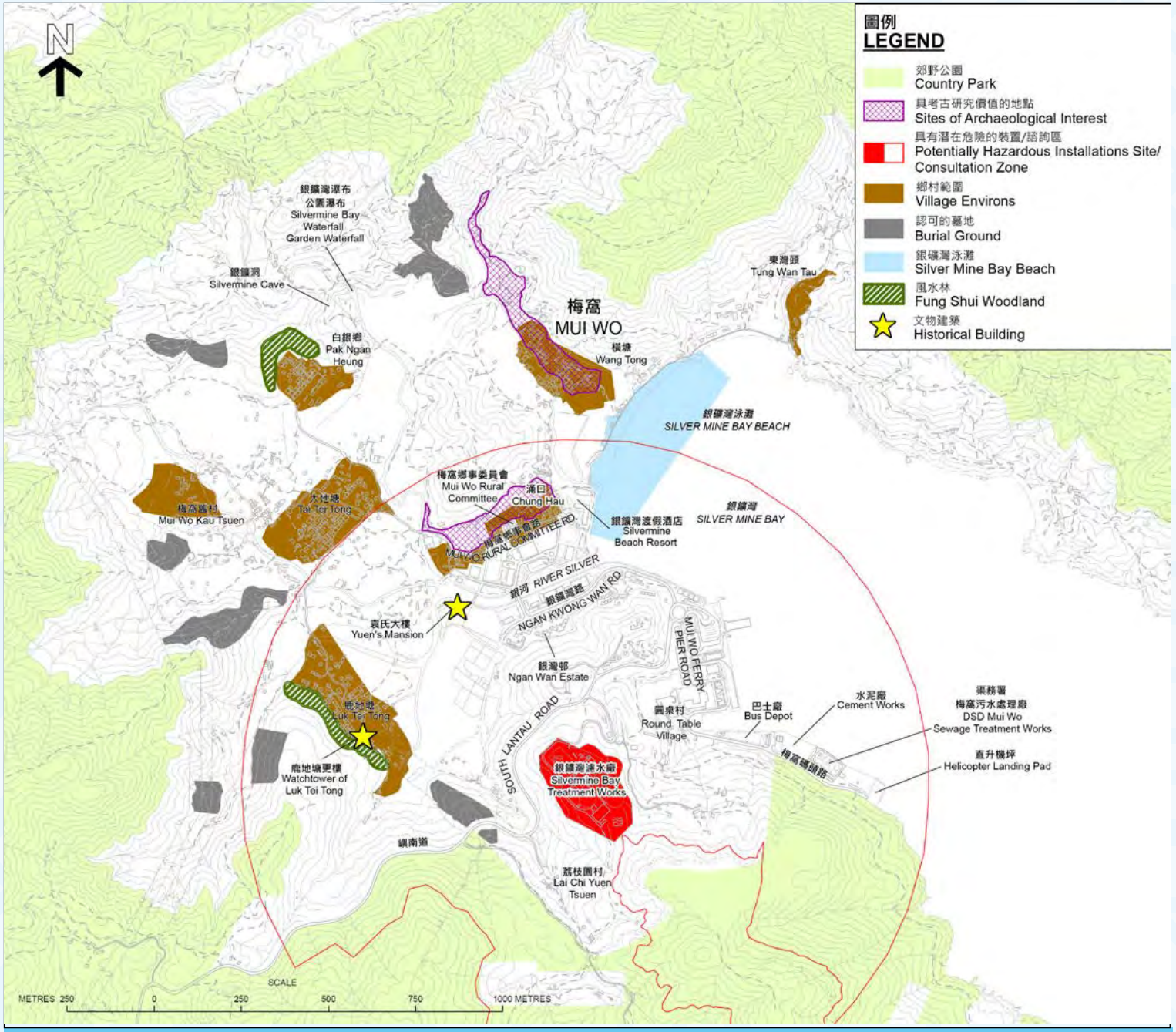
G Potentially Hazardous Installation (PHI) Constraint

3.27 The Silver Mine Bay WTW is classified as a PHI due to the use and storage of liquid chlorine on site. Developments within the Consultation Zone of the PHI require hazard assessment to ascertain their feasibility. There may be opportunity to explore downsizing the WTW by reducing the quantity of chlorine storage. Alternatively, the subject facility may be relocated or mitigation measures to reduce risks could be implemented. The future location of new WTW should complement the overall development of the ELM.

H Land Use Constraints

3.28 It is necessary to identify suitable areas for relocation purposes to ensure that any development proposals of the correctional facilities on Hei Ling Chau could meet their operational and security requirements and would not cause any undue disruption to their operation. Detailed feasibility and technical studies would need to be carried out for further planning and implementation.

3.29 The Deed of Restrictive Covenant of the Hong Kong Disneyland has stipulated land use, building height and other restrictions on the northeast Lantau area. The proposal to create artificial island(s) in the central waters would need to take into account the restrictions imposed under such Deed.



Plan 8: Development Constraints of Mui Wo (For Indication Only)

4. Overall Planning Approaches

A Creating Economies of Scale for Better Planning and Design

4.1 The proposed ELM would create the necessary critical mass for the urban and economic developments and achieve cost-effectiveness in the provision of substantial infrastructure as well as strategic benefit to the development in and around the ELM, in particular those at North Lantau. In the territorial context, it would also help promote a more balanced overall development pattern for Hong Kong. Besides, the creation of sizeable developable land would allow ample opportunities for comprehensive planning, design and engineering, as well as the adoption of various innovative, smart and green initiatives.

Central - Hong Kong's Traditional CBD

B Forming a New Core Business District

4.2 A CBD in the ELM could be created to complement the traditional CBD in Central and Kowloon East forming an extended metropolitan business core to provide land supply to meet the demand for Grade A offices and other business uses, to provide additional employment opportunities, and to sustain the long-term economic growth of Hong Kong. The new core business node could be positioned as Hong Kong's CBD3, concentrated within a walkable radius of future potential railway stations.

4.3 By developing a new CBD in the ELM, more employment opportunities in the area will be created and the traffic demand from Lantau outward to the main urban areas during peak hours may be reduced. A holistic view in the planning of new developments should also be taken so that cross-district travel patterns or concentration of employment in the traditional CBDs could be adjusted.

Kowloon East - Hong Kong's CBD2

C Embracing Natural Features

4.4 In view of the ecological values of Kau Yi Chau, which is currently largely zoned "CA", innovative measures, such as creation of water channels to separate Kau Yi Chau from the reclamation, would be adopted with a view to minimising the potential impact of the reclamation on ecology and hydrodynamics. The same approach may also be adopted for the reclamation near Hei Ling Chau. Green channels and retention lakes which form part of the sustainable drainage system could be integrated in the layout design to serve as green spines and public amenities. These water and natural features could be linked together to create a water-friendly environment for embracing the natural environment and serving as visual corridors.

D Fostering Urban-Rural-Nature Integration

4.5 Mui Wo is rural in nature with a number of village settlements and agricultural land at the fringe areas. The area is endowed with rich landscape and ecological resources as well as cultural heritage. As such, a harmonious approach will be adopted for Mui Wo to foster urban-rural-nature integration. The flat land adjacent to the existing rural township provides opportunity for development at an appropriate scale to produce clustering effect. The beachside could be enhanced to become an activity hub with waterfront promenade for the enjoyment of local residents as well as visitors and tourists. Further north along Silver Mine Bay Beach could be enhanced and upgraded to become a recreational and tourist node for eco-tourism and water sports developments. Good quality farmland within the "Agriculture" ("AGR") zone could be preserved for agricultural use as far as possible.

E Enhancing Accessibility and Connectivity

4.6 A comprehensive transport network to promote both external and internal accessibility of the ELM is essential. Under the principle of sustainable development, better integration and connectivity with the urban areas and opportunities for strategic transport initiatives will be explored.

4.7 The development of the ELM will capitalise on the enhanced accessibility brought by planned and possible new transport infrastructure to pursue a transit-oriented development concept. Adopting railway as the backbone of the passenger transport system, land uses and railway development will be planned in an integrated

Railway as the Backbone of Public Transport System

manner. Major residential, commercial and community facilities will be planned around the future potential railway stations, with development intensity descending from the railways stations. The railway network will be complemented by appropriate road links, as well as other environmentally friendly commuting modes such as trams, cycling and walking to facilitate green mobility. Ferry services could also provide an alternative means of transport.

F Smart, Green and Resilient City

4.8 The concept of smart, green and resilient city would be adopted in the planning and design of the ELM in creating a better place to live, work, do business, pursue leisure and study. A smart, green and resilient city is the integration of the following components:

Smart: Technology will be the enabler to facilitate resource optimisation, smart growth and smart living. During the design stage of the ELM, a well planned information and communications technology (ICT) infrastructure network could promote the ELM into a smart and efficient community.

Green: The idea of green initiatives may proceed in three directions, including resource management, urban development and planning of infrastructure. For resource management, it is suggested to optimise the existing underutilised land and encourage rainwater collection and recycling, effluent reuse, centralised waste treatment, waste to energy, district cooling system, etc. On urban development, it is recommended to encourage the promotion of green buildings, green communities and green districts. Blue-green infrastructure concepts and eco-shorelines would be incorporated into infrastructure facilities for promoting greening, biodiversity and near-water activities.

Resilient: Being a strategic growth area beyond 2030, we shall adopt the best practice and latest planning and engineering standards and guidelines in planning the ELM to ensure that it could remain functional and be able to cope with uncertainties, especially in the face of climate change. For instance, the reclamation level and infrastructure at the coastal areas should be resilient to extreme weather conditions.

Smart Use of Land Resources

4.9 A compact rail based development model complemented by other environmentally friendly transport modes will be considered in the ELM to optimise the use of scarce land resources.

4.10 It is worth exploring the feasibility of creating underground spaces in conjunction with the reclamation work in Kau Yi Chau and Hei Ling Chau for accommodating some or all of the required infrastructure, thereby releasing the surface sites for other beneficial uses such as recreational facilities or open spaces.

4.11 Besides, subject to further feasibility study, most of the existing “Not-in-My-Backyard” uses at the waterfront of Mui Wo, such as sewage treatment works, cement works and bus depot, etc., could be relocated to the identified rock caverns so as to release ground surface for other beneficial uses and to achieve smart use of land resources.

ELM is Positioned as a Smart, Green and Resilient Development

Integrated Smart, Green and Resilient Infrastructure System

4.12 An integrated smart, green and resilient infrastructure system is a strategically planned network of physical infrastructure such as waste collection and sorting facility, sewage treatment works, treated sewage effluent, sustainable urban drainage, smart water resources management, district cooling system, etc. We will explore the opportunity to incorporate an integrated smart, green and resilient infrastructure system in the ELM development.

Green and Walkable Environment and Smart Mobility

4.13 Blue-Green Infrastructure : Integrate drainage infrastructures with the surrounding environment to enhance flood resilience. The green channels and retention lakes to be provided for drainage / flood protection purposes would also provide outlets for public enjoyment.

4.14 Walkable and Car-Free Communities : Higher density development would cluster within the walkable catchment of the public transport nodes. Cycle tracks, boardwalks and pedestrian trails will be provided in a comprehensive network for promoting cycling and walking. Moreover, the concepts of “car-free zone” and “low-emission zone” could also be explored in the ELM development.

4.15 The new technology of "Smart Mobility-Transport Information Platform" and "Intelligent Traffic Management System", such as utilising the internet or smart phone applications as a one-stop platform for providing transport information, including route map, shortest route recommendation, real time service updates, latest traffic conditions, car parking availability and the location and information on cycling facilities so as to encourage the use of public and low carbon transport, can be applied in developing the ELM to enhance the usage of public and low-carbon transport facilities as well as reduce the congestion and carbon emission there effectively. This technology is increasingly common in a growing number of cities.

Encouraging Cycling and Walking to create a Low-carbon Community

ICT Platform Enabling Smart Urban Living and Businesses

4.16 The establishment of an integrated Common Spatial Data Infrastructure and ICT infrastructure will be an essential foundation for developing the ELM as a smart development cluster. It will be developed in the ensuing planning and engineering feasibility study.

5. Potential Development Framework

Overview

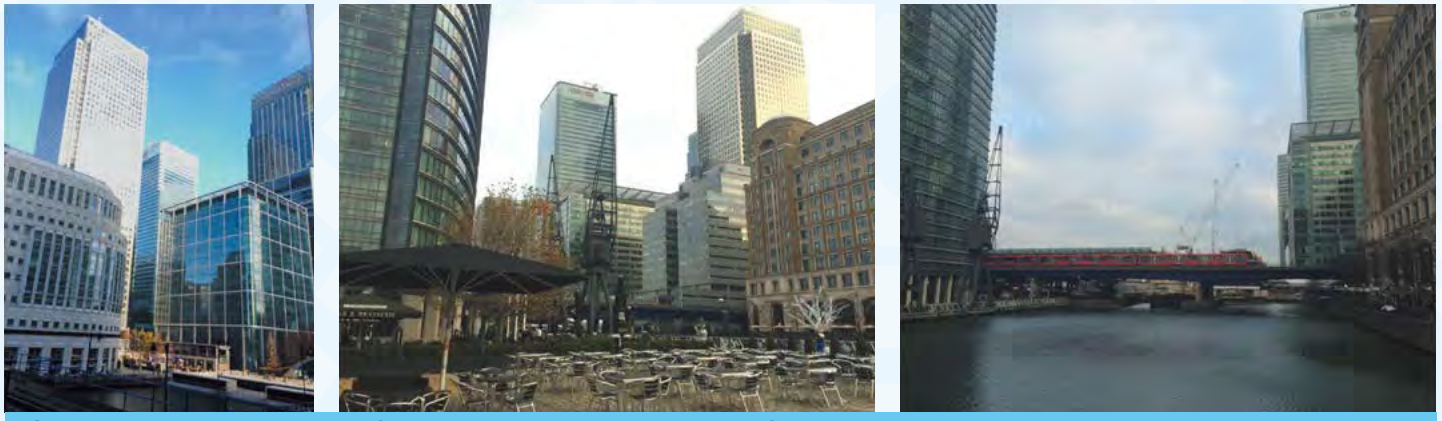
5.1 The basic concept of the ELM is to create artificial island(s) through reclamation in the waters near Kau Yi Chau and Hei Ling Chau Typhoon Shelter as well as making better use of the underutilised land in Mui Wo, with the aim of creating a smart, liveable, low-carbon development cluster including CBD3. Taking into account the surrounding marine and environmental contexts and the available development space, the potential developable area of the ELM is about 1,000 ha and the population of the ELM could range from 400,000 to 700,000 supported by at least about 200,000 employment opportunities.

5.2 The estimated population level is based on the new town model, with due consideration of the necessary critical mass in population and jobs required to trigger a viable urban scale, to sustain the proposed railway and road networks, to create efficiency, economies of scale and synergy effects.

Potential Key Development Areas

5.3 Having considered the development opportunities and constraints, the ELM could potentially consist of three development areas, namely Kau Yi Chau, Hei Ling Chau and Mui Wo. The three components will be planned comprehensively to achieve synergy, economies of scale, connectivity, optimisation of land uses and functions; and to bring about desired change to the spatial development pattern of the territory.

5.4 The ELM will be a mega development project which will unlikely be implemented in one-go. A progressive approach of development and supporting infrastructure over a long time horizon could be adopted. It is necessary to consider the implementation sequence/phasing of the three components of the metropolis having regard to such relevant factors as critical mass to achieve efficient urban scale, provision of infrastructure and delivery of services, cost-effectiveness of infrastructure investment, etc. The scale and phasing of the three development components would be subject to future study.



CBD3 could be a New and Smart Financial and Producer Services Hub

Kau Yi Chau

5.5 Kau Yi Chau is positioned as a core development of the ELM with CBD3. Large-scale reclamation is proposed to create sizeable flat land to achieve critical mass. It is targeted to be developed as a new development area to accommodate a large proportion of the new population of the ELM and contribute to the economic development and employment generation of Hong Kong. A new CBD comprising office, hotel and other commercial developments will be provided as an alternative locational choice other than the traditional CBD. It would contribute to a more balanced distribution of employment in Hong Kong. More importantly, it will be a compact, smart and enviromentally friendly community close to the existing Metro Area where Hong Kong people can live, work, do business, play and study.

5.6 In view of the sensitive natural landscape setting of Kau Yi Chau, the development should not infringe on the existing island in order to protect the existing habitats, including the coral areas around the seashores of Kau Yi Chau. In this regard, innovative measures, such as water channels around the island, should be examined. Moreover, the eco-shoreline concept would be applied for the artificial island(s) to minimise the impact on the marine ecology as far as possible. It would be desirable to concentrate the proposed commercial elements at the eastern part of the reclamation to minimise the distance to Central. By providing regional commercial facilities, quality jobs with a range of skills including the managerial, professional and technology-related jobs could be created. In the detailed planning of this strategic growth area, due regard to the constraints and restraints highlighted in the previous chapter should be given.

Hei Ling Chau

5.7 Hei Ling Chau is positioned as a residential township. The scale of the township would depend on the critical mass that allows it to support itself for urban island living. The future residents would be benefitted from the employment opportunities in Kau Yi Chau which is to be developed with a CBD. Hei Ling Chau would mainly offer a convenient near-water lifestyle to widen the choice of accommodation in Hong Kong, while part of the existing typhoon shelter could be retained as a marina-cum-typhoon shelter, subject to further technical assessment.

5.8 Sizeable flat land will be created through reclamation of the currently underutilised Hei Ling Chau Typhoon Shelter and its surrounding waters. In view of the ecologically sensitive areas at the island of Hei Ling Chau, creation of water channels, similar to that suggested for Kau Yi Chau, between the reclamation and the existing island would be one of the solutions. Development on the island would be confined to the sites of the existing correctional and related facilities, which would need to be relocated to suitable areas to be identified, to ensure secured and smooth operation in accordance with the relevant legislation. Such development would also need to avoid disturbance to the habitat of the rare Bogadek's Burrowing Lizard, and should be subject to ecological survey.

Mui Wo

5.9 The concept for Mui Wo is the development of a sustainable and quality residential neighbourhood respecting the rural and natural setting by making better use of the underutilised land. Through re-planning and optimisation of existing underutilised land, together with cavern development, Mui Wo could be revitalised as an enhanced township with a small amount of low-density residential developments as well as recreational and tourism-related uses. The areas around the existing ferry pier extending to the civic square (i.e. the area currently occupied by Mui Wo Municipal Services Building, Mui Wo Swimming Pool, Mui Wo Playground and garden to the south of Mui Wo Rural Committee Road) could become an activity hub with water promenade, retail shops, restaurants, alfresco dining, civic and leisure facilities for the enjoyment of local residents, visitors and tourists. The area further north along Silver Mine Bay Beach would be enhanced and upgraded to become a beachfront recreational node for eco-tourism and water sports development.

5.10 Subject to further feasibility study, the existing utilities at the southern waterfront could be relocated to rock caverns or consolidated. The strip of land at the waterfront would be reserved for landing of transport links, waterfront promenade cum commercial facilities and utilities requiring sea frontage.

Transport and Other Infrastructure (Plan 9)

5.11 Given the potential population and employment opportunities at the proposed ELM and its CBD3 function, it is crucial to connect the ELM with the existing urban districts through a strategic transport network. Subject to further detailed study, railway would be considered as the backbone transportation mode to internally connect the major components of the ELM, while externally with Hong Kong Island West, Kowloon West and North Lantau, and further with the NWNT via HKBCF Island, thereby forming a new strategic railway corridor between the NWNT and the Metro Areas via Lantau and the ELM.

5.12 Similar to the railway network, a new strategic highway corridor directly connecting the NWNT with the Metro Areas via Lantau and the ELM is also proposed. Under this strategic highway corridor, the ELM would be connected eastwards to Hong Kong Island West, and northwards to the North Lantau Highway which would then be further connected to the NWNT via the HKBCF Island and the Tuen Mun-Chek Lap Kok Link under construction and the proposed Route 11 under planning. It also provides an alternative access to the airport and the NWNT. The connection of the ELM to Mui Wo and the North Lantau Highway would be a potential linkage for the even longer term, and subject to the development scale of the ELM.

5.13 Besides land transport, new and additional piers and landing facilities could also be introduced to the ELM to strengthen its external connectivity and inter-island travel by waterborne transport.

5.14 Other intrastructure would also be required to support the ELM. Based on a preliminary review, additional sewerage networks and sewage treatment works would need to be built to meet the shortfall in sewage handling capacity supporting the ELM. From the drainage provision perspective, although the ELM is mainly from reclamation with no major risk of flooding, appropriate drainage facilities should be provided for the efficient conveyance of stormwater. The existing waterworks

facilities, such as WTWs, serving Lantau and its nearby islands are inadequate to cope with the increase in water demand from the ELM, additional waterworks facilities would be required. It is also estimated that the municipal solid waste generated from the population and commercial uses of the ELM needs to be properly managed in a sustainable manner. In addition, the construction waste generated from the infrastructure and building works during the initial stage of the development needs to be properly handled as well.

Plan 9 : Strategic Traffic and Transport Infrastructure Concept Plan Adapted from LanDAC's First-term Work Report - "Space for All" (For Indication Only)

6. Next Step

6.1 These preliminary concepts for the development of the ELM are included in Hong Kong 2030+ for evaluation in the territorial context.

6.2 Further studies on planning and engineering feasibility would be conducted prior to taking forward the development proposals, if deemed appropriate. The public will be continuously informed and engaged in the study processes.

ELM

香港 HONG KONG 2030+

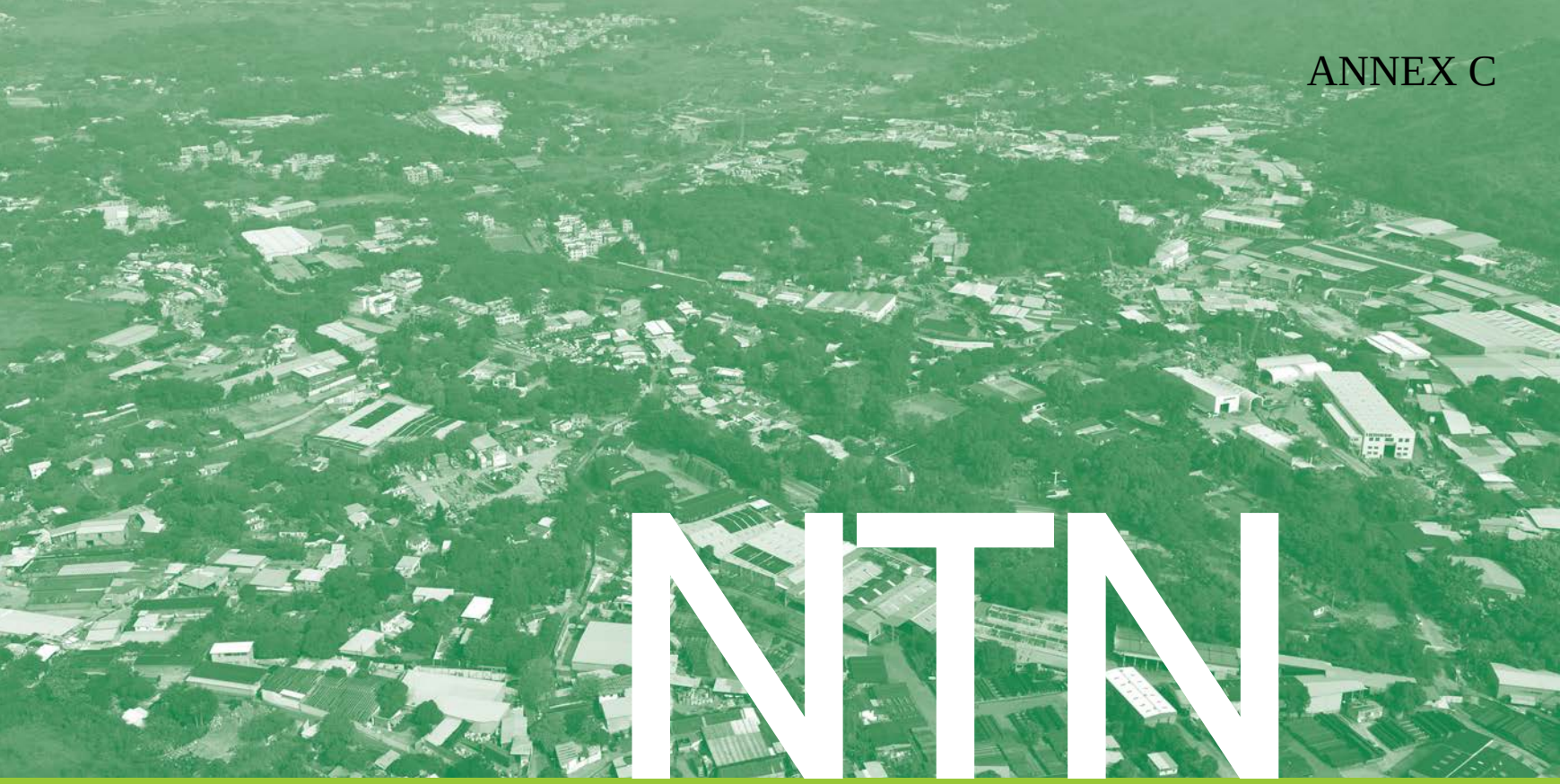
Towards a Planning Vision and Strategy Transcending 2030

OCTOBER 2016

發展局 Development Bureau

規劃署 Planning Department

ANNEX C



NTN

香港 HONG KONG 2030+

Towards a Planning Vision and Strategy Transcending 2030

Preliminary Concepts for the New Territories North Development

1 Overview

Background

1.1 According to the latest population projection, Hong Kong's population would continue to grow, from 7.24 million in 2014 to 8.22 million by 2043. There is a continuous demand for land for economic development to sustain our competitiveness. There are also increasing community aspirations for a better living environment.

1.2 To maintain a steady land supply, the Government is looking into various initiatives, including exploring further development opportunities in the New Territories (NT) with a view to developing a modern new town there of a similar scale as the Fanling (FL)/Sheung Shui (SS) New Town, as announced in the 2013 Policy Address.

1.3 The "Preliminary Feasibility Study on Developing the New Territories North" (the Study), jointly commissioned by Civil Engineering and Development Department (CEDD) and Planning Department (PlanD) in early 2014, aims at formulating a broad planning framework for the New Territories North (NTN) through optimising the use of land released from the Closed Area and other undeveloped areas in the region, conserving worthy natural and cultural heritage, capturing opportunities that may be brought by new transport infrastructure under planning, and tackling the various environmental issues existing in the area caused by the proliferation of brownfield sites and the associated problem of inefficient use of scarce land resources.

1.4 The Study adopts a comprehensive and integrated approach to formulate the optimal scale of development in the NTN. It has explored the potential of building new communities and vibrant employment and business nodes in the area to contribute to the long-term social and economic development of Hong Kong.

1.5 The Study is a preliminary feasibility study which has examined the baseline conditions of the NTN covering about 5,300 hectares (ha) of land (**Plan 1**) to identify potential development areas (PDAs) and formulate an overall planning approach and broad land use concepts. The findings of the Study are presented in the following sections.

1.6 The Fanling Golf Course held under the Private Recreational Lease (PRL) falls within the NTN study area and is subject to the Review of Policy on PRL currently undertaken by the Home Affairs Bureau.

Vision

1.7 The NTN and East Lantau Metropolis are two strategic growth areas proposed under the "Hong Kong 2030+: Towards a Planning Vision and Strategy Transcending 2030" (Hong Kong 2030+) to meet the long-term social and economic needs of Hong Kong beyond 2030.

1.8 Through comprehensive planning and more efficient use of those abandoned agricultural and brownfield land in the NT, the development of the NTN would be a significant source of land supply for building up new communities and developing modern industries and industries preferring a boundary location while improving the living environment of the existing area.

Plan 1: New Territories North Study Area (For Indication Only)

2. Existing Conditions

2.1 A large area of the NTN was situated in the former Closed Area, and thus it has remained largely natural and rural (**Plan 2**). In contrast, the FL/SS New Town has already been developed with a population over 250,000 which will further increase to about 290,000. The planned Kwu Tung (KT) North and FL North New Development Areas (NDAs) will accommodate an additional population of about 170,000, making up a total population of 460,000 for the FL/SS/KT New Town.

2.2 The NTN directly abuts the boundary with Shenzhen and comprises four Boundary Control Points (BCPs), including the Lok Ma Chau (LMC) and LMC Spur Line BCPs in the west which are served by San Tin (ST) Highway, and Man Kam To (MKT) and Lo Wu BCPs in the east served by MKT Road.

2.3 To the further east, the Liantang (LT)/Heung Yuen Wai (HYW) BCP and its Link Road are under construction and will be completed in 2018. The HYW area is now served by Lin Ma Hang Road. The area of Ping Che (PC), Ta Kwu Ling (TKL) and Queen's Hill is currently accessed via Sha Tau Kok Road and PC Road.

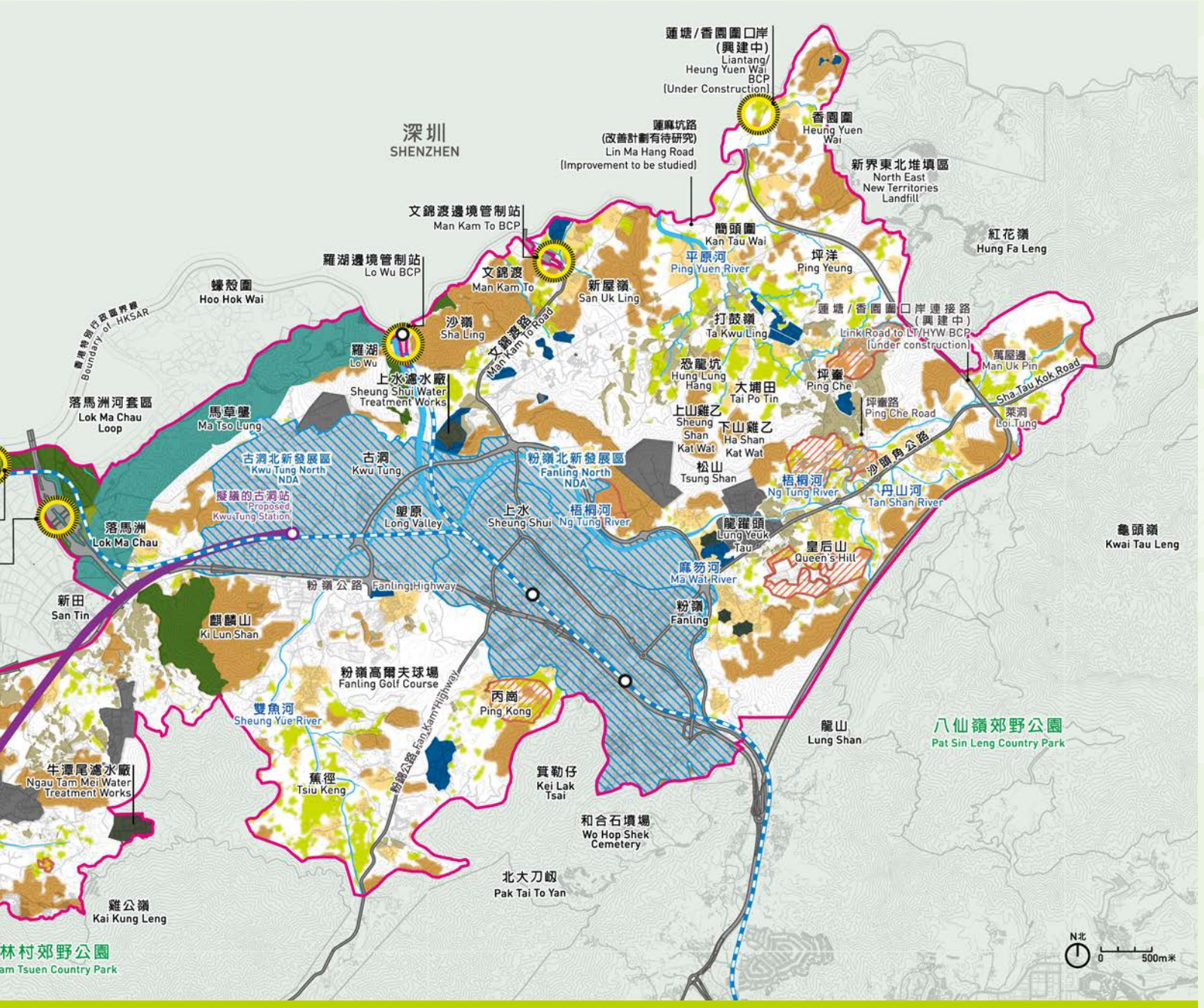
Topography and Natural Resources

2.4 The NTN is characterised by its natural topography with a mixture of hilly terrain and river valleys. There is the natural landscape of the Lam Tsuen and Pat Sin Leng Country Parks in the south, the wetland at Hoo Hok Wai in the north as well as the Hung Fa Leng countryside area in the east. Its rich natural assets include woodlands, watercourses, marshes, ponds and agricultural land. There are flat lands intermingled with rural settlements.

Population and Employment

2.5 According to the 2011 Population Census, the NTN (excluding the FL/SS/KT New Town) has a total population of about 45,000 mainly concentrated in and around village settlements. The existing working population of the NTN is about 20,000 persons. Since the area is rural in nature, there are only about 4,200 jobs.

Plan 2: Existing Conditions
(For Indication Only)


深圳
SHENZHEN
蓮塘/香園圍口岸
(興建中)
Liantang/
Heung Yuen Wai
BCP
(Under Construction)
香園圍
Heung Yuen
Wai
蓮麻坑路
(改善計劃有待研究)
Lin Ma Hang Road
(Improvement to be studied)
新界東北堆填區
North East
New Territories
Landfill
文錦渡邊境管制站
Man Kam To BCP
羅湖邊境管制站
Lo Wu BCP
簡頭圍
Kan Tau Wai
紅花嶺
Hung Fa Leng
平原河
Ping Yuen River
坪洋
Ping Yeung
蠔殼圍
Hoo Hok Wai
文錦渡
Man Kam To
新屋嶺
San Uk Ling
蓮塘/香園圍口岸連接路
(興建中)
Link Road to LT/HYW BCP
(under construction)
沙嶺
Sha Ling
打鼓嶺
Ta Kwu Ling
羅湖
Lo Wu
文錦渡路
Man Kam To Road
萬屋邊
Man Uk Pin
恐龍坑
Hung Lung
Hang
坪輋
Ping Che
上水濾水廠
Sheung Shui Water
Treatment Works
大埔田
Tai Po Tin
落馬洲河套區
Lok Ma Chau
Loop
馬草壟
Ma Tso Lung
上山雞乙
Sheung
Shan
Kat Wat
下山雞乙
Ha Shan
Kat Wat
坪輋路
Ping Che Road
沙頭角公路
Sha Tau Kok Road
萊洞
Loi Tung
古洞北新發展區
Kwu Tung North
NDA
古洞
Kwu Tung
粉嶺北新發展區
Fanling North
NDA
松山
Tsung Shan
擬議的古洞站
Proposed
Kwu Tung Station
落馬洲
Lok Ma Chau
蝙原
Long Valley
上水
Sheung Shui
梧桐河
Ng Tung River
梧桐河
Ng Tung River
丹山河
Tan Shan River
龍躍頭
Lung Yeuk
Tau
龜頭嶺
Kwai Tau Leng
皇后山
Queen's Hill
麻笏河
Ma Wat River
粉嶺公路
Fanling Highway
新田
San Tin
粉嶺
Fanling
麒麟山
Ki Lun Shan
粉嶺高爾夫球場
Fanling Golf Course
丙崗
Ping Kong
雙魚河
Sheung Yue River
龍山
Lung Shan
八仙嶺郊野公園
Pat Sin Leng Country Park
牛潭尾濾水廠
Ngau Tam Mei Water
Treatment Works
蕉徑
Tsiu Keng
粉錦公路
Fan Kam Highway
箕勒仔
Kei Lak
Tsai
和合石墳場
Wo Hop Shek
Cemetery
北大刀峪
Pak Tai To Yan
雞公嶺
Kai Kung Leng
林村郊野公園
am Tsuen Country Park
N北
0
500m米

2. Existing Conditions

2.6 The NTN is predominantly occupied by rural plots with over 80 indigenous/non-indigenous villages, low-rise residential estates and other scattered rural settlements.

2.7 The NTN was once occupied by extensive agricultural activities. Since the 1960-70s, there has been rapid decline in agricultural activities. Vast tracts of farmland have gradually turned into open storage yards, container yards, open car parks, warehouses/logistics or other rural industrial uses, with particular concentration of brownfield operations in ST, LMC, Hung Lung Hang (HLH) and PC/TKL areas. The proliferation of brownfield sites in the NTN has created considerable environmental, traffic, visual, flooding and other problems. Nevertheless, there are still about 260 ha of active agricultural land and about 20 livestock farms scattered in the NTN.

Upland and Green Land © CEDD

Agricultural Land © CEDD

Open Storage Yards and Rural Workshops © CEDD

Villages © CEDD

3. Opportunities & Constraints

Strategic Location

3.1 Commanding a strategic boundary location, the NTN has easy access to Shenzhen and the eastern part of Guangdong. The existing BCPs, namely Lo Wu, MKT, LMC and LMC Spur Line handle a large volume of cross-boundary traffic which is expected to grow further. The LT/HYW BCP together with the Link Road, both under construction, will enhance connection between Hong Kong and Shenzhen east and other parts of eastern Guangdong.

Transport and Other Infrastructure

3.2 Currently, only part of the NTN is served by the East Rail, ST Highway and FL Highway. With the strategic transport infrastructure, including the LT/HYW BCP Link Road under construction and the proposed Northern Link (NOL)#, connectivity of the NTN is expected to be enhanced.

3.3 The NTN is subject to constraints of the existing capacity for various infrastructure. Additional transport, sewerage, water supply and drainage infrastructure will be required to cater for new developments.

Land Resources

3.4 Since the Security Bureau's announcement in 2008, about 2,400 ha of land has been released from the Closed Area in phases. While a large portion of land within the former Closed Area such as Deep Bay, nearby wetlands and woodlands in Hung Fa Leng are worthy of conservation as recommended in the study on "Land Use Planning for the Closed Area", development opportunities can still be found in areas along the major cross-boundary transport corridors such as those near LMC, MKT and the future LT/HYW BCPs.

3.5 It is important to preserve active and good quality farmland where possible. While the extensive abandoned agricultural land and brownfield sites may serve as new land supply, the active and good quality farmland could be conserved, rehabilitated or integrated with new developments in a holistic manner.

Local Constraints

3.6 There are scattered indigenous and non-indigenous villages, burial grounds, planned large scale columbarium and crematorium (in Sha Ling and near Mai Po Lung Tsuen), military sites, hilly terrain, high voltage overhead transmission (400kV) cables, potentially hazardous installations (such as water treatment works), North East NT Landfill and its planned extension, historic buildings, archaeological sites, active agricultural land and agricultural land with potential for rehabilitation, etc. imposing different development constraints.

Please refer to the Railway Development Strategy 2014 (RDS2014) (Highways Department's website - http://www.hyd.gov.hk). It is proposed that the NOL will be a railway line between the Kam Sheung Road Station on the existing West Rail Line and a new station at KT on the LMC Spur Line.

4 Overall Planning Approaches

A Fostering Urban-Rural-Nature Integration

4.1 Conventional urban development in the NT has resulted in an urban-rural dichotomy situation, under which urban and rural forms of developments are distinctly separated. When planning for the NTN, in view of the scattered patches of active farmland intermingled with brownfield sites, we propose adopting a more harmonious approach to foster urban-rural-nature integration. The rural and natural features in the NTN, comprising topographic landmarks, village type developments, cultural heritage and farming activities should be preserved where possible and well integrated with newly planned residential and employment nodes. Key potential directions include:

Embracing the Natural Characters: Green and Blue Corridors

4.2 Natural characters in the NTN will help define the limit of development and can be reinforced to create an urban-rural-nature integrated environment. The existing natural areas can form green corridors with the new urban greens, allowing close contact with the nature by urban dwellers. Several channelised rivers in the NTN, including Ng Tung River (River Indus), Ma Wat River, Tan Shan River (River Jhelum), Sheung Yue River (River Beas) and Ping Yuen River (River Ganges) could be revitalised with green and eco-hydraulics measures to enhance biodiversity and create riverine open space and blue and green corridors.

Existing Channelised River in Ta Kwu Ling © CEDD

Integrating "Old" and "New" Communities: Preserving Established Rural Settlements

4.3 The "old" and "new" communities could be planned to coexist. Due consideration should be given to integrate the established villages and rural settlements with new developments. We shall consider a new form of urban development intermingled with rural settlements, which could be the special character for our future NTN.

Graded Buildings in Established Villages © PlanD

Encouraging Social Integration: Integrated Provision of New Public and Community Facilities

4.4 New urban development could improve the existing rural environment through integrated provision of public and community facilities, new information and other technologies to enhance convenience, connectivity and quality of life.

Preserving Agriculture

4.5 There is a fair amount of agricultural activities in the NTN. Apart from preserving active and good quality farmland where possible, we can also encourage local residents, local businesses and those who work or live in the urban areas to participate in leisure farming. Opportunities to improve farming practices and technologies as advocated under the Government's New Agriculture Policy, such as organic farming, hydroponic farming, etc. would be further explored.

© Arup

© Arup

B Creating Opportunities for People and Businesses: New Industries New Employment

4.6 The economic development in the NTN could be promoted through the enhanced infrastructure and taking the advantage of convenient cross-boundary linkages in the area. Extensive brownfield sites are found in the NTN, particularly in and around HLH. Although open storage and other port back-up uses help support economic activities, fragmented and unplanned development of these activities has generated negative impacts. Consolidating and upgrading these activities will help address their negative impacts, including visual blight, flooding risks, environmental pollution and traffic stress. The process of consolidation would free up land for new economic activities.

4.7 The planning for new industries and employment in the NTN benefits all Hong Kong residents by helping address the over-concentration of employment in the urban area. It also helps provide local employment, boost economic vitality of local communities, reduce long distance commuting, as well as ease congestion caused by the growing traffic from the NT to the urban area.

Science Park © Ken Chan/Arup

Ecology Centre © Arup

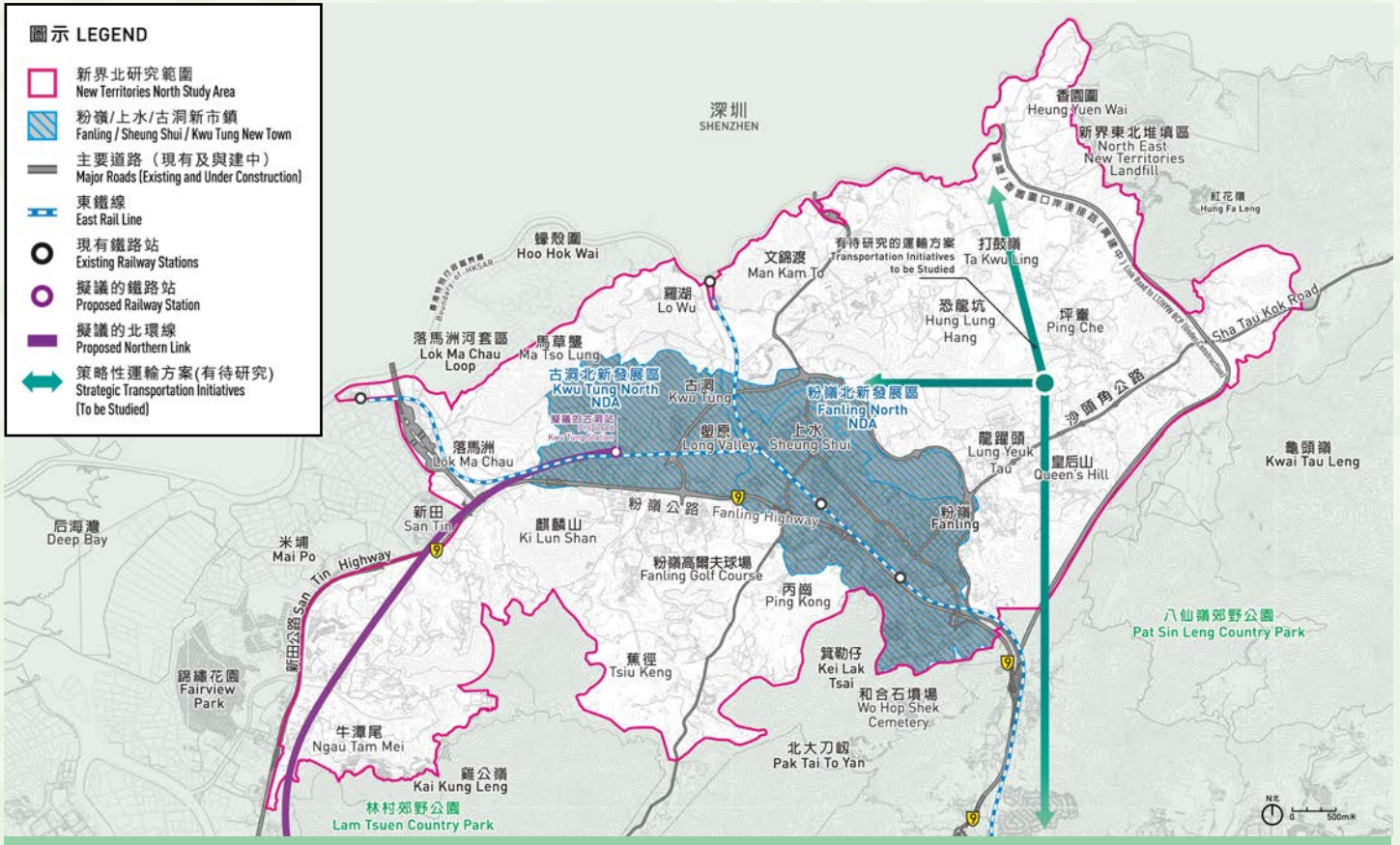
4.8 Having regard to Hong Kong's economic edges, the advantage of strategic boundary location, and the presence of extensive undeveloped or abandoned land resources, suitable industries could be developed in the NTN to foster Hong Kong's long-term economic growth:

- High Value-added Logistics Hub: Capitalising on the enhanced transport connections and proximity to BCPs, the NTN could be developed with specialised logistics facilities to cater for increasingly complex regional supply chains and high value-added production in the Pearl River Delta (PRD). Rapidly evolving cross boundary e-commerce also requires value-added logistics services to handle the growing freight volumes.
- Innovation and Technology Industries: Situated on the Eastern Knowledge and Technology Corridor proposed under Hong Kong 2030+, the NTN could be an ideal location for a new science park/industrial estate to support the development of research and development and high-tech industries. The boundary location benefits the complementary functions and tech ecosystems of Hong Kong and Shenzhen.
- Professional Services, Producer Services and Testing and Certification: Hong Kong has clear advantages in marketing, product development and testing and certification. Due to its proximity to the Mainland and the BCPs, the space in the NTN would be a good choice for professional services, producer services and testing and certification service providers.
- Food Trade and Retail/Outlet/Wholesale: With the abundant local fresh produce, proximity to the MKT BCP and food control centre, and customers' demand for safe and healthy food, the NTN could be a hub for quality food certification and distribution integrated with food-related industries. Apart from conventional retail and outlet stores that could be developed, a "Grown or Certified Food in Hong Kong"-themed food market, including farm produce from local farming and food trade, could be developed into a unique attraction and an anchor for further development. It could also serve as a distribution facility to support the agricultural and local urban farming sector.
- Knowledge-based Green Industries: The proposed integrated smart, green and resilient infrastructure system for the NTN would facilitate reuse and recycling activities. Recycling of food waste/composting would create synergies with the agricultural sector.
- Eco/Cultural/Heritage Tourism: The NTN has a rich stock of historic villages, frontier heritage and cultural/historic interest. It also houses many organic and traditional/leisure farms, as well as biodiversified rural areas. These resources could be harnessed and connected by heritage trails, cycle tracks, etc. for eco/cultural/education-oriented recreation and tourism promotion.

C Enhancing Accessibility and Connectivity

4.9 At present, the NTN is connected with the urban area and other parts of the NT via the East Rail and ST/FL Highways. We will explore a comprehensive transport system to improve external and internal accessibility and connectivity.

4.10 In the NTN, we will pursue a Transit-Oriented Development (TOD) concept. Adopting railway as the backbone of the passenger transport system, land uses and railway development will be planned in an integrated manner. We will examine possible new railway lines to enhance the accessibility of the NTN to unleash the potential for development. The proposed developments will be clustered around railway stations, including the possible intermediate stations of the proposed NOL, with a view to optimising coverage and encouraging use of public transport (**Plan 3**). We will also explore opportunities for strategic transportation initiatives and better connectivity with the urban area.



Plan 3: Connectivity in the NTN (For Indication Only)

D Smart, Green and Resilient City

4.11 Urbanisation and climate change around the world have generally led to resources depletion. This has prompted a re-think of the development mode to pursue a more sustainable path for the NTN. Taking advantage of the global trend and new technologies, we should employ the concept of smart, green and resilient city to tackle the potential challenges.

Tram Priority with Real-Time Display of Traffic Information

4.12 A smart, green and resilient city is the integration of the following components:

- Smart: Technology is an enabler to facilitate resource optimisation, smart growth and smart urban living. With the use of information and communication technology (ICT), a smart city collects, integrates and uses information/data to manage and optimise the city operation to improve quality of life.
- Green: A green city embeds technology into urban infrastructure (e.g. energy, transport, water and waste) to increase resource efficiency, reduce consumption, reduce carbon emissions while maintaining biodiversity and enhancing liveability.
- Resilient: In order to deal with natural and man-made uncertainties, notably climate change, a resilient city invests in enhancing the resilience of its interrelated systems to adapt and rebound quickly from economic, social and physical shocks.

Integrated Smart, Green and Resilient Infrastructure System

4.13 An integrated smart, green and resilient infrastructure system is a strategically planned network of physical infrastructure such as waste collection and sorting facility, sewage treatment works, sustainable urban drainage, smart water resources management, etc. (**Plan 4**) These utility and public services facilities are symbiotically connected together, such that by-products for disposal at one facility become resources of another to achieve more efficient use of resources as well as a more low carbon and green community. One example would be treated sewage effluent for flushing and irrigation. Another example would be turning waste to energy. The integrated smart, green and resilient infrastructure system through the use of ICT such as smart grid could better manage resources. It also enhances the overall capacity of facilities to withstand and recover from natural or man-made disasters. We will explore the opportunity to incorporate the integrated smart, green and resilient infrastructure system in the NTN development.

Plan 4: Conceptual Diagram of an Integrated Smart, Green and Resilient Infrastructure System

4 Overall Planning Approaches

Smart Use of Land Resources

4.14 With steep hilly terrain, cavern and underground space has been used extensively in Hong Kong for MTR stations, rail tunnels, utilities and highway tunnels, property basements, sewage treatment works, salt water service reservoirs and refuse transfer stations. Some "Not-in-My-Backyard" facilities possibly being unsightly, and emitting odours and noise could be placed in rock cavern and underground space to bring significant benefits to the community and the environment. Moreover, enhancing the use of cavern and underground space can create additional useable space to house suitable facilities, which can save surface land for other beneficial uses.

Examples of Underground Parking of Vehicles and Cycles © PlanD

Example of Cavern Development: Water Service Reservoir © CEDD

Example of Cavern Development: Sports Stadium © Norconsult

Example of Cavern Development: Sewage Treatment Works © Arup

Green and Walkable Environment

4.15 Blue-Green Infrastructure: Integrate drainage infrastructure with the surrounding environment to enhance flood resilience, create clean and beautiful streams, rivers and lakes with landscape for public enjoyment as well as create or rehabilitate ecological habitats to support biodiversity and achieve an ambience of harmony with nature.

© Chris Costea

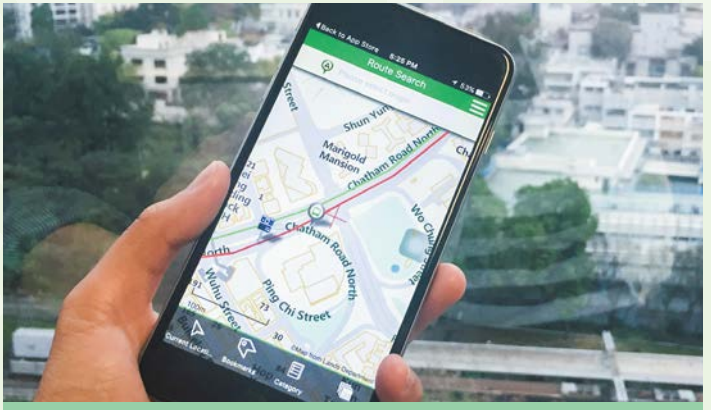
4.16 Walkable and Car-Free Communities: Set up a safe, connected, accessible and pleasant pedestrian network and adopt urban design features to enhance walking experience, and promote walking as a preferred transport mode, along with other green modes of transport, e.g. cycling.

© PlanD/CEDD

ICT Platform Enabling Smart Mobility, Urban Living and Businesses

4.17 Smart Mobility-Transport Information Platform: Utilise internet or smart phone applications as a one-stop platform for providing transport information, including route map, shortest route recommendation, real time service updates, latest traffic conditions, car parking availability and the location and availability of cycles so as to encourage the use of public and low carbon transport. This technology is increasingly common in many cities across the world to enhance urban living and create opportunities for innovative businesses.

© CEDD



© Arup

5. Overall Planning & Design Framework

Landscape and Ecological Resources Framework

5.1 Given the abundance of natural resources, any new development in the NTN should not only respect these resources and the natural characters but also enhance them by linking them through landscape attributes such as greenery and riverine open space corridor.

5.2 A holistic framework of landscape and ecological resources is formulated to ensure conservation, integration and enhancement of these natural resources and to help define possible developable areas (**Plan 5**).

5.3 In this framework, existing quality natural and landscape resources such as Fung Shui woodlands, upland hillslopes, active agricultural land, etc. are connected to form green corridors. Blue corridors are formed with natural or revitalised watercourses. These corridors link up segregated habitats and provide green and blue connectors for future developments.

5.4 Future developments should cluster away from quality natural and landscape resources, including breezeways and air-paths, and take into account the urban climatic characteristics in the NTN as well as the green backdrop in the south and the wetland belt in the northwest and the north. Future developments should vary in scale to respect local characteristics.

Plan 5: Landscape and Ecological Resources Framework (For Indication Only)


深圳
SHENZHEN
香園圍
Heung Yuen Wai
紅花嶺
Hung Fa Leng
平原河
Ping Yuen River
打鼓嶺
Ta Kwu Ling
文錦渡
Man Kam To
蠔殼圍
Hoo Hok Wai
羅湖
Lo Wu
恐龍坑
Hung Lung Hang
坪輋
Ping Che
馬草壟
Ma Tso Lung
古洞
Kwu Tung
塱原
Long Valley
上水
Sheung Shui
梧桐河
Ng Tung River
丹山河
Tan Shan River
龜頭嶺
Kwai Tau Leng
落馬洲
Lok Ma Chau
龍躍頭
Lung Yeuk Tau
皇后山
Queen's Hill
麻笏河
Ma Wat River
新田
San Tin
麒麟山
Ki Lun Shan
雙魚河
Sheung Yue River
粉嶺
Fanling
丙崗
Ping Kong
龍山
Lung Shan
八仙嶺郊野公園
Pat Sin Leng Country Park
箕勒仔
Kei Lak Tsai
和合石墳場
Wo Hop Shek Cemetery
蕉徑
Tsiu Keng
牛潭尾
Ngau Tam Mei
北大刀岐
Pak Tai To Yan
雞公嶺
Kai Kung Leng
林村郊野公園
Lam Tsuen Country Park
N北
0
500m米

5. Overall Planning & Design Framework

Strategic Planning Framework and Potential Development Areas (PDAs)

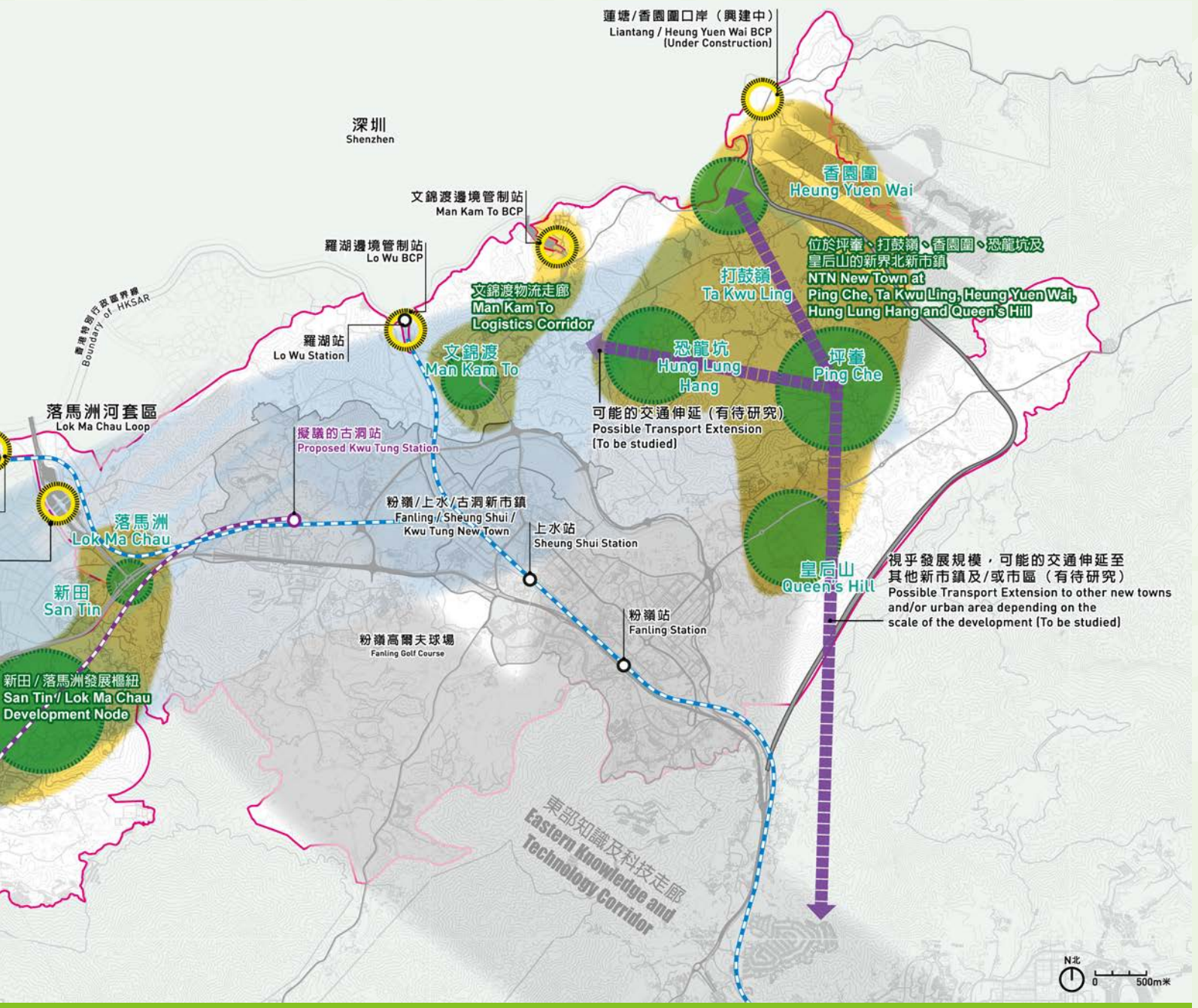
5.5 Having regard to the landscape and ecological resources framework, the overall planning approaches of the NTN, local development opportunities and constraints and having undergone a mapping process of relevant local conditions (including assessment of natural landscape and ecological resources, existing topography, visual and landscape aspects, land uses, proximity to the existing/planned/possible transport and infrastructure networks, environmental and urban climatic conditions, geotechnical conditions, etc.), a strategic planning framework and three PDAs are proposed. These include the ST/LMC Development Node, MKT Logistics Corridor, and NTN New Town at PC, TKL, HYW, HLH and Queen's Hill (**Plan 6**).

5.6 While there are various development constraints, our preliminary assessments suggest that developable land could be found within these PDAs for possible housing, economic and employment generating developments to meet some of the territory's long-term population and economic growth. The planned public housing development at Queen's Hill that will trigger further developments in its surrounding areas should be taken into account in a comprehensive manner as well.

Development Scenarios

5.7 Two development scenarios with different population and employment levels have been formulated for the NTN having regard to Hong Kong's long-term housing, economic and other development needs, population and job balance, and transport and other infrastructure requirements.

Plan 6: Strategic Planning Framework and Potential Development Areas (For Indication Only)


蓮塘/香園圍口岸（興建中）
Liantang / Heung Yuen Wai BCP
(Under Construction)
深圳
Shenzhen
香園圍
Heung Yuen Wai
文錦渡邊境管制站
Man Kam To BCP
羅湖邊境管制站
Lo Wu BCP
文錦渡物流走廊
Man Kam To
Logistics Corridor
打鼓嶺
Ta Kwu Ling
位於坪輋、打鼓嶺、香園圍、恐龍坑及
皇后山的新界北新市鎮
NTN New Town at
Ping Che, Ta Kwu Ling, Heung Yuen Wai,
Hung Lung Hang and Queen's Hill
羅湖站
Lo Wu Station
文錦渡
Man Kam To
恐龍坑
Hung Lung
Hang
坪輋
Ping Che
落馬洲河套區
Lok Ma Chau Loop
擬議的古洞站
Proposed Kwu Tung Station
可能的交通伸延（有待研究）
Possible Transport Extension
(To be studied)
粉嶺/上水/古洞新市鎮
Fanling / Sheung Shui /
Kwu Tung New Town
落馬洲
Lok Ma Chau
上水站
Sheung Shui Station
新田
San Tin
皇后山
Queen's Hill
視乎發展規模，可能的交通伸延至
其他新市鎮及/或市區（有待研究）
Possible Transport Extension to other new towns
and/or urban area depending on the
scale of the development (To be studied)
粉嶺站
Fanling Station
粉嶺高爾夫球場
Fanling Golf Course
新田/落馬洲發展樞紐
San Tin / Lok Ma Chau
Development Node
東部知識及科技走廊
Eastern Knowledge and
Technology Corridor
N北
0
500m米

6. Broad Land Use Concepts

	Scenario I	Scenario II
Development Characteristics	Balanced Population High Employment to Population Ratio Minimum Infrastructure Requirement **Development Area** about 720ha **Population** 255,000 **Employment** 215,000	High Population Low Employment to Population Ratio Higher Infrastructure Requirement **Development Area** about 720ha **Population** 350,000 **Employment** 215,000
Intention	The intention is to achieve the best performance in terms of self sustainability of population and employment with diversity of land use at appropriate development intensity	The intention is to increase the population. The employment to population ratio will be lower. Features a mix of population and employment level with higher development intensity which is beyond the balanced one under Scenario I
Traffic Impact	The balanced population and employment mix helps relieve the directional traffic demand, thereby minimising the transport infrastructure required and reduce the average distance of travel by commuters to achieve transport sustainability and work-life balance	More biased towards population increase and thus may give rise to more commuting trips to the urban area
Infrastructure Requirement	Mainly make use of the NOL proposed under RDS 2014 to serve the developments in the west. Possible transport extensions to the other new towns and/or urban area depending on the scale of the development (to be studied) to support the developments in the east. The required additional infrastructure is lower than that of Scenario II	More transport infrastructure requirements including making use of the NOL proposed under RDS 2014 to serve the developments in the west, possible transport extensions to other new towns and/or urban area depending on the scale of the development (to be studied) to support the developments in the east and improvement on the north-south road network
Population/ Job Balance	Achieve the planning principle of maximising opportunities for jobs and businesses by generating employment clusters to help alleviate the territorial spatial imbalance of jobs and capitalise on the development potential of the boundary location	With higher population, the improvement in the overall employment to population ratio of the NTN is not significant
Population Density	With a balanced population and employment mix, the proposed population density is comparable to that of Sha Tin New Town	With the increased population level and residential land, the proposed population density would be higher than that of Sha Tin New Town and comparable to that of Tseung Kwan O New Town
Urban-Rural-Nature Integration	The new developments would blend in well with the existing rural environment. Scenario I achieves the best performance of fostering urban-rural-nature integration among the two scenarios	With higher density development, there would be impact on integration with rural settlement and the setting of the northern NT as developments of significantly different scales would be in close proximity in this scenario

6. Broad Land Use Concepts

6.1 For the two development scenarios, broad land use concepts have been formulated under the concept of smart, green and resilient city for a balanced, diverse and sustainable development in the NTN. These concepts cover the three PDAs, namely the ST/LMC Development Node, MKT Logistics Corridor and NTN New Town (**Plan 7**) with a total development area of about 720ha[#].

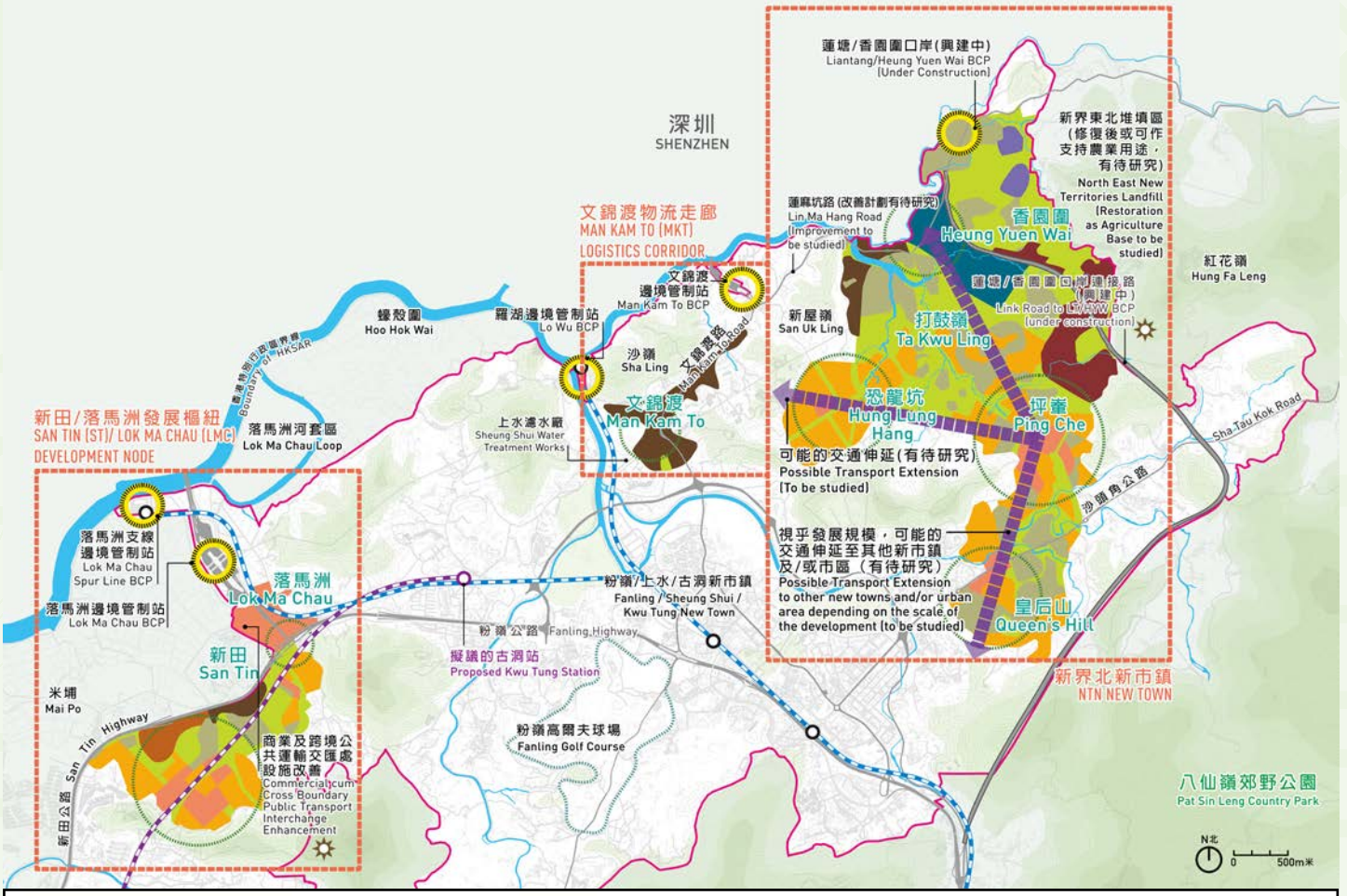
6.2 Among the three PDAs, ST/LMC Development Node and MKT Logistics Corridor share the same broad land use concepts and scale of development under the two development scenarios. For NTN New Town, different development intensities, land use mixes and scales of development are proposed for the two development scenarios. Each of the PDAs is further discussed in the following pages.

ST / LMC

MKT

[#] Excluding areas not for development such as proposed agriculture zone , green belt, villages and existing government, institution and community facilities

6. Broad Land Use Concepts



圖示 LEGEND

- 新界北研究範圍 New Territories North Study Area
- 邊境管制站/口岸 Boundary Control Points
- 主要道路及交通設施(現有及興建中) Major Roads and Transport Facilities (Existing and Under Construction)
- 東鐵線 East Rail Line
- 擬議的北環線 Proposed Northern Link
- 現有鐵路站 Existing Railway Stations
- 擬議的鐵路站 Proposed Railway Station
- 可能的運輸連接(有待研究) Possible Transport Connection (to be studied)
- 可能的岩洞發展作基礎設施用途(有待研究) Possible Cavern Development for Infrastructure (to be studied)
- 交通樞紐 Transport Hubs
- 主要河流 Major Rivers
- 住宅 Residential
- 商業 Commercial
- 可能的科學園 / 工業邨 Possible Science Park / Industrial Estate
- 東部知識及科技走廊的新重點用途(產城融合區) New Anchor Uses of Eastern Knowledge and Technology Corridor (Integrated Community of New Industrial Productions and Urban Living)
- 旅遊/消閒 Tourism / Leisure
- 企業園 Enterprise Park
- 物流 Logistics
- 綠地/康樂用地/農地/原有鄉郊民居 Greenery / Recreation / Agricultural Land / Established Rural Settlements
- 現有 / 已計劃 / 已承諾的發展 Existing / Planned / Committed Development

* The boundaries and broad land uses of PDAs would be subject to change

Plan 7: Broad Land Use Concepts (For Indication Only)

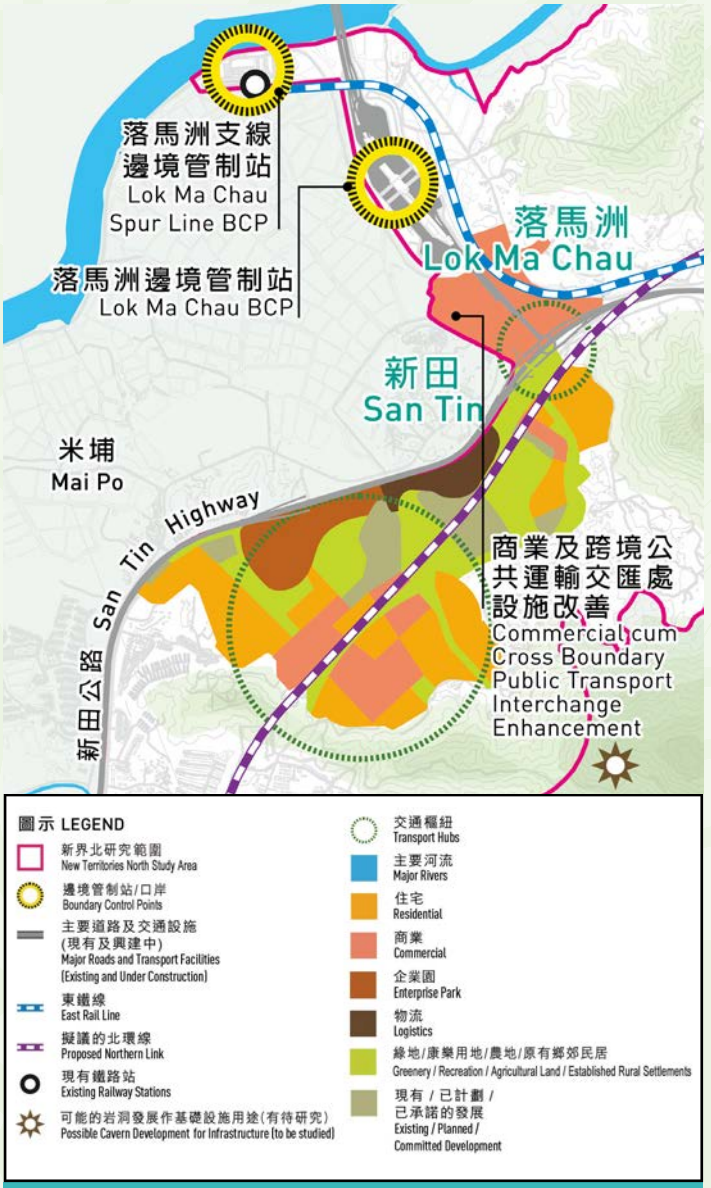
Three Potential Development Areas

A	San Tin/Lok Ma Chau Development Node	175 ha	
		55,000 People	80,000 Jobs

6.3 Situated at the western part of the NTN, the area has a concentration of various brownfield operations. ST/LMC is an important gateway with the presence of LMC and LMC Spur Line BCPs. Given the prime location and the high flow of cross-boundary passengers and freight activities, ideas about providing commercial/retail facilities near LMC BCP have been floated. However, as ST/LMC is close to the environmentally sensitive Mai Po, this should be taken into due account when formulating development proposals. The proposed NOL under the RDS 2014 will route through ST to connect the east and west railways.

6.4 The ST/LMC Development Node with a development area of about 175ha# (**Plan 8**) will capture the potential given by the strategic location and create a slightly job-biased community of 55,000 people and 80,000 jobs with strong economic linkage with the PRD. Key features include:

LMC BCP © CEDD



* The boundary and broad land uses of PDA would be subject to change

Plan 8: ST/LMC Development Node (For Indication Only)

Excluding cavern development area for utility facilities

Key Features

- Cross-boundary commercial/retail facilities close to LMC BCP to support activities related to boundaries.
- Enhancement to the connectivity of the LMC BCP.
- Multi-level compounds for the consolidation of existing brownfield operations and distribution activities near the LMC BCP.
- Possible intermediate railway station on the proposed NOL to be considered to capitalise on TOD potential near ST.
- A possible cavern development at the south of the area identified for accommodating supporting utility facilities.
- The development node is common to the two development scenarios and could be developed in the early phase.

B Man Kam To Logistics Corridor

35 ha

4,000 Jobs

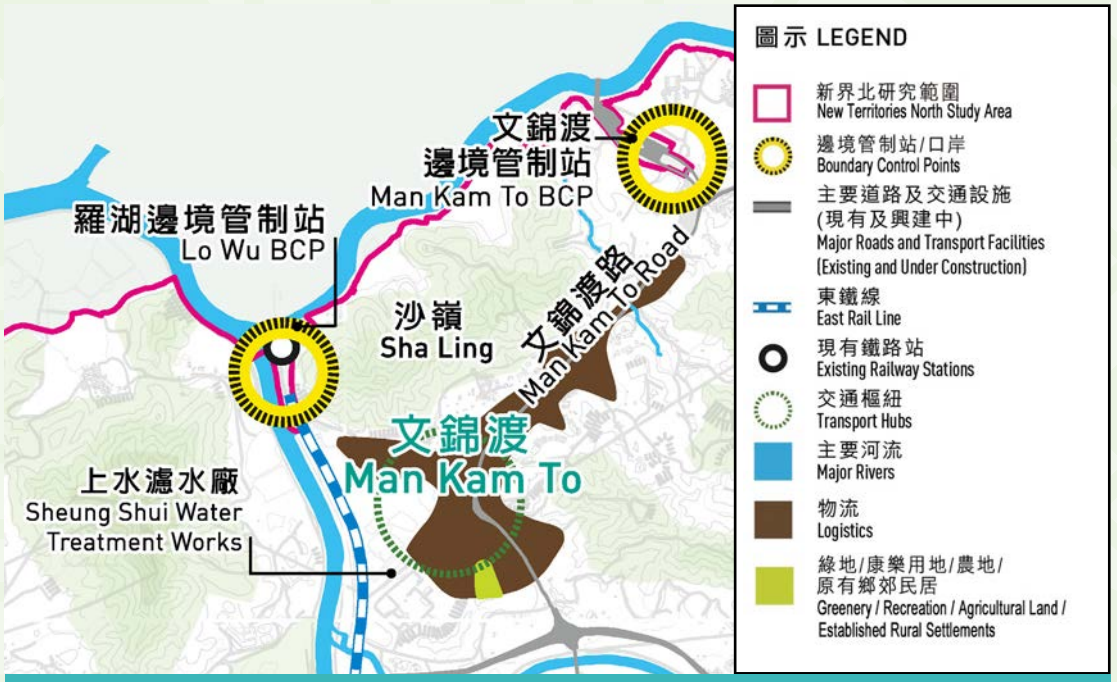
6.5 With the presence of Lo Wu and MKT BCPs, MKT serves as another important gateway in the NTN. MKT is mainly accessed via MKT Road. There are mixed land uses comprising active agricultural land, village settlements, open storage yards and a cluster of government facilities including food control and livestock monitoring facilities near the MKT BCP, Sandy Ridge Cemetery (Sha Ling), San Uk Ling Holding Centre, SS Water Treatment Works and the proposed Phase 2 Organic Waste Treatment Facilities at Sha Ling. Ng Tung River (River Indus) flows through this area and the existing Dongjiang water mains are laid along MKT Road.

6.6 Capitalising on its proximity to the MKT cross-boundary facilities and cross-boundary freight especially related to fresh food produce and livestock, development in the area will adopt the role of a Logistics Centre with a convenient link to the future LT/ HYW BCP (**Plan 9**). Key features include:

Key Features

- Providing about 35ha of agri-logistics consolidation and certification area for storage, testing and certification of food before distribution as well as other modern logistics.
- The Logistics Corridor creating about 4,000 jobs will be linked to the future LT/HYW BCP and HYW of the NTN New Town via MKT Road and Lin Ma Hang Road.

MKT BCP © CEDD



* The boundary and broad land uses of PDA would be subject to change

Plan 9: MKT Logistics Corridor (For Indication Only)

C	NTN New Town	510 ha	
		200,000 or 300,000 People	130,000 Jobs

6.7 Situated at the east of the NTN, the NTN New Town will comprise five major areas, namely HYW, PC, TKL, HLH and Queen's Hill (**Plan 10**). The area is currently intermixed with extensive areas of village type development, open storage, rural industrial uses, active and abandoned agricultural land. A public housing site is planned at Ex-Burma Lines Military Site at Queen's Hill. At the north, the LT/HYW BCP under construction is scheduled to complete in 2018. This BCP will connect to the Shenzhen Eastern Corridor and provide an efficient access to the eastern part of Guangdong and beyond.

6.8 Sha Tau Kok Road and PC Road are the major road connection within the area. The accessibility of the area will be further enhanced by the future possible railway and the Link Road of the LT/HYW BCP which is under construction.

6.9 In view of an anticipated increase in the demand for sites for scientific research and new industrial use, the Government will identify sites near the LT/ HYW BCP for the development of science park and industrial estate as announced in the 2016 Policy Address.

6. Broad Land Use Concepts

6.10 The NTN New Town with a development area of about 510ha[#] could accommodate about 130,000 jobs and a population level of 200,000 or 300,000 (including the planned Queen's Hill Development) under two scenarios with the support of different strategic transport infrustructure. Key features of the NTN New Town include:

Key Features

- A vibrant and balanced new town to capitalise on the TOD potential, while respecting the local rural context.
- Possible Science Park and Industrial Estate cluster with new anchor uses of the Eastern Knowledge and Technology Corridor near the LT/HYW BCP.
- An integrated community of new industrial productions and urban living with residential and community facilities in support of new anchor uses of the Eastern Knowledge and Technology Corridor near PC/TKL.
- PC and HLH to serve as new development cores for mixed residential and commercial uses.
- Queen's Hill as another major residential hub with a mix of commercial uses, together with the planned Queen's Hill development, including public housing, private housing and an international school.
- Possible transport extensions to other new towns and/or urban area depending on the scale of the development (to be studied).
- A possible cavern development at the east of the area identified for accommodating supporting utility facilities including refuse transfer station, fresh water service reservoirs, sewage treatment works, etc.
- An agro-tourism area to the east of HYW to preserve the agricultural landscape and maintain the continuity of the rural landscape.
- Multi-level compounds for the consolidation of existing brownfield operations.
- Modern logistics to support the logistics activities near the BCPs and growth in demand for logistics space in Hong Kong.
- Outside the development area, active agricultural land, established settlements, green knolls, stream valleys and other natural features will be preserved and integrated into the planning of the new town so as to achieve the urban-rural-nature integration.

[#] Excluding cavern development area for utility facilities

* The boundary and broad land uses of PDA would be subject to change

** More land would be assigned for residential use and higher development intensity for residential and commercial use would be adopted in Scenario II

Plan 10: NTN New Town (For Indication Only)

7. Next Step

7.1 Broad technical assessments in terms of engineering, traffic and other infrastructure capacities, environment and ecology, etc. have been conducted and confirmed preliminary development feasibility of the PDAs in the NTN. The findings of the Study related to the development scenarios and the PDAs serve as the basis for evaluation in the territorial context under Hong Kong 2030+.

7.2 Further studies on planning and engineering feasibility including environmental concern, Government investment and implementation approach would be conducted prior to taking forward the development proposals, if deemed appropriate. The public will be continuously informed and engaged in the study processes.

NTN

香港 HONG KONG 2030+

Towards a Planning Vision and Strategy Transcending 2030

OCTOBER 2016

發展局 Development Bureau

規劃署 Planning Department

CEDD 土木工程拓展署 Civil Engineering and Development Department

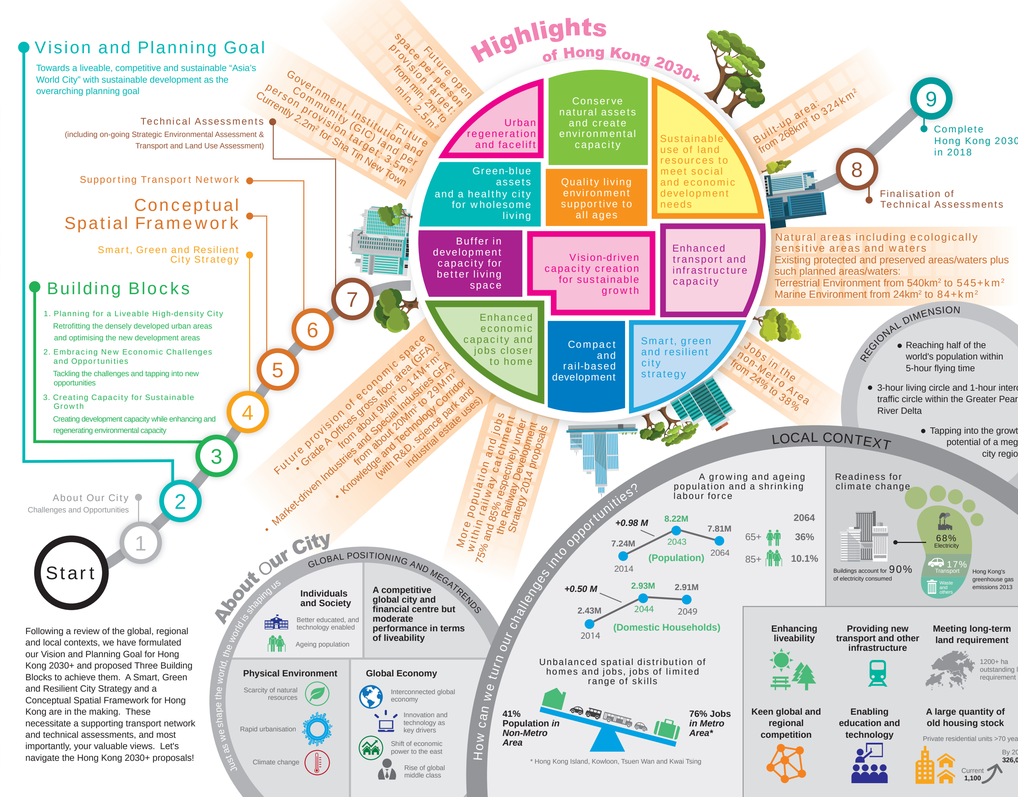
香港 HONG KONG 2030+

TOWARDS A PLANNING VISION AND STRATEGY TRANSCENDING 2030

PUBLIC ENGAGEMENT

"Hong Kong 2030+: Towards a Planning Vision and Strategy Transcending 2030" (Hong Kong 2030+) updates the territorial development strategy (i.e. "Hong Kong 2030: Planning Vision and Strategy") promulgated in 2007. It serves to guide planning, land and infrastructure development and the shaping of the built environment of Hong Kong beyond 2030. It encompasses the vision and planning goal, the three building blocks of the strategy (i.e. "Planning for a liveable high density city", "Embracing new economic challenges and opportunities", and "Creating capacity for sustainable growth"), and a conceptual spatial framework to translate the building blocks. This pamphlet highlights the major proposals of Hong Kong 2030+ for engagement with the community. We welcome your valuable views.

Following a review of the global, regional and local contexts, we have formulated our Vision and Planning Goal for Hong Kong 2030+ and proposed Three Building Blocks to achieve them. A Smart, Green and Resilient City Strategy and a Conceptual Spatial Framework for Hong Kong are in the making. These necessitate a supporting transport network and technical assessments, and most importantly, your valuable views. Let's navigate the Hong Kong 2030+ proposals!



Conceptual Spatial Framework for Hong Kong 2030+

ANNEX D

We are optimising the locational advantages of different sectors/industries and the distribution of the population and jobs; and enhancing the capacity of transport, infrastructure and environment for a sustainable, efficient and cost-effective development pattern. A clear spatial framework with a metropolitan business core, two strategic growth areas and three primary development axes; and preserving our natural assets and enhancing our liveability is proposed.

1 Metropolitan Business Core

Reinforce the traditional Central Business District (CBD1) focusing on high value-added financial services and advanced producer services

Transform Kowloon East into CBD2 as an alternative locational choice for enterprises

Create CBD3 at the proposed East Lantau Metropolis (ELM) near Hong Kong Island West as a new and smart financial and producer services hub

- ✓ Three complementary CBDs together with secondary nodes to strengthen Hong Kong's position as a global financial and business hub
- ✓ Land and space for businesses to move up the value chain, to expand and to start up

2 Strategic Growth Areas

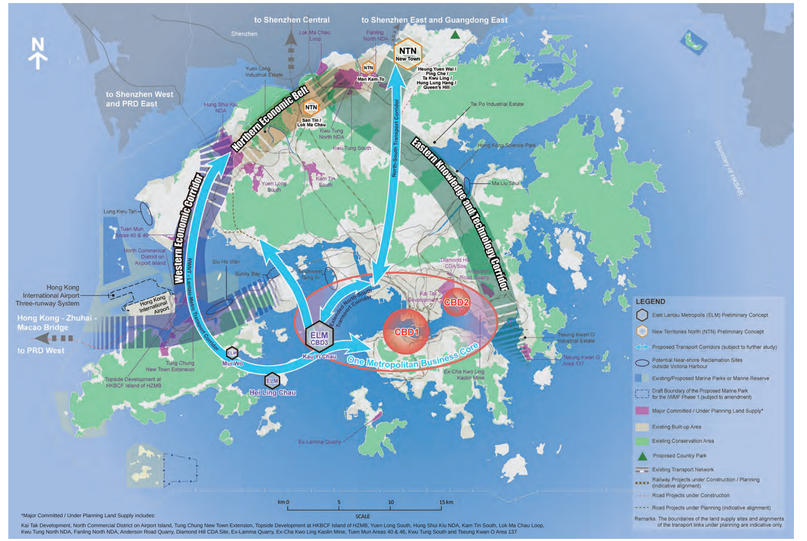
(1) ELM: Bridge Hong Kong Island and Lantau and create a new metro-front by developing a metropolis with a CBD mainly through reclamation in the ecologically less sensitive waters near Kau Yi Chau and the Hei Ling Chau Typhoon Shelter, and making better use of the under-utilised land in Mui Wo

(2) New Territories North (NTN): Develop a new generation new town at Heung Yuen Wai/Ping Che/Ta Kwu Ling/Hung Lung Hang/Queen's Hill, and modern industries and economic uses preferring a boundary location at two potential development areas at San Tin and Man Kam To through comprehensive planning and more efficient use of brownfield sites and abandoned agricultural land

	ELM	NTN
Development Area	~1000 ha	~720 ha
Population	~400k - 700k	~255k or ~350k
Employment	~200k	~215k

*Development phasing and scale to be decided

- ✓ Comprehensive planning with a good mix of uses and facilities
- ✓ Quality living, work places and business environment
- ✓ Economic vitality
- ✓ Better home-job balance
- ✓ Thriving community
- ✓ Balance with nature



3 Emerging Development Axes

- ✓ Strategic positioning to cater for different economic sectors and to capitalise on locational advantages and the synergy

(1) **Western Economic Corridor** – capitalising on the international and regional gateway and strategic transport infrastructure in West Hong Kong, Hung Shui Kiu, Tuen Mun, Yuen Long South and various developments in North Lantau as new launchpad for growth

(2) **Eastern Knowledge and Technology Corridor** – leveraging the existing high technology industries and tertiary institutions cluster, and strengthening the corridor by additional knowledge and technology developments proposed in Tseung Kwan O, Kwu Tung North, Lok Ma Chau Loop, Ma Liu Shui and near Liantang/Heung Yuen Wai Boundary Control Point

(3) **Northern Economic Belt** – comprising six boundary crossings and an additional one under construction, as well as NTN development, suitable for warehousing, research and development (R&D), modern logistics and other emerging industries to create new employment centres in the northern New Territories

Supporting Transport Network

- A proposed northwest New Territories (NWNT)-Lantau-Metro Transport Corridor in Hong Kong West
- A proposed North-South Transport Corridor from northeast New Territories (NENT) to Kowloon
- Subject to transport need and detailed study, the proposed NWNT-Lantau-Metro Transport Corridor may be extended northwards to Shenzhen West for further connectivity and functional integration, fortifying the Western Economic Corridor

- ✓ Enhance urban mobility and transport networks
- ✓ Enhance connectivity between metro core and Lantau
- ✓ Alternative connection to the airport and NWNT

Three Building Blocks of the Territorial Development Strategy

BUILDING BLOCK 1

PLANNING FOR A LIVEABLE HIGH-DENSITY CITY

The compact high-density development model has made Hong Kong highly convenient, efficient and vibrant with extensive green and blue spaces. Yet, there are various side effects such as small home and work spaces, a congested urban environment and urban heat island effect.

There is no precedent of high-density and high-liveability cities. We propose that in the high-density context of Hong Kong, a quality living environment is one that is compact; integrated; unique, diverse and vibrant; healthy; and inclusive and supportive. It is also a place where green-blue assets are harnessed, where the public space can be enjoyed by all, and where our ageing city fabric is well maintained with timely rejuvenation.

A COMPACT CITY

Underscoring compact development with railway as the backbone, complemented by other modes of public transport and good pedestrian and cycling networks.

Fostering functional and vibrant urban spaces through compatible land use mix and responsive urban design concepts.

AN INTEGRATED CITY

Planning for a physically and functionally integrated city with easy access to workplaces, businesses, public amenities and nature.

Fostering a low-carbon first or last-mile trip to mass transit and a walkable city.

A UNIQUE, DIVERSE AND VIBRANT CITY

Enhancing our unique city character including natural assets, tangible and intangible heritage, city icons and urban-rural-countryside-nature continuum.

Promoting a sense of place and genuine choices of lifestyles, leisure pursuits and accommodation.

A HEALTHY CITY

Incorporating urban climatic and air ventilation considerations into planning.

Embracing the "active design" concept to promote physical activities and healthy lifestyles, and promoting easy access to nature and recreational facilities.

LEVERAGING GREEN AND BLUE ASSETS

Enriching existing green and blue assets through better access and facilities.

Reinventing the "green and blue asset system" networks by integrating green and blue space planning and providing eco-corridors.

Cultivating community green networks (e.g. promoting communal green spaces and urban farming).

Developing and implementing an urban forestry strategy.

Promoting a sustainable built environment (e.g. promoting green and blue infrastructure and exploring the possibility of introducing a "green index").

REINVENTING PUBLIC SPACE AND ENHANCING PUBLIC FACILITIES

Reinventing public space (e.g. public parks and public streets) in terms of functions, quality, design, accessibility, provision, management, etc.

Improving or redeveloping substandard public facilities and enhancing space provision to cater for changing needs.

REJUVENATING THE URBAN FABRIC

Expediting the maintenance and rejuvenation of dilapidated urban areas concentrated in the densely built urban core.

Stepping up efforts and policy on urban regeneration to address a large bulk of old building stock.

AN INCLUSIVE AND SUPPORTIVE CITY

Promoting an age-friendly environment for "active ageing", "ageing in place" and "inter-generational support" (e.g. adequate elderly facilities, public space within easy reach, and universal design in residential flats).

Planning for a supportive environment to nurture the youth (e.g. training and development facilities and premises to nurture young entrepreneurship).

Providing a supportive environment for families (e.g. childcare facilities at convenient locations).

Addressing housing needs of all ages by providing wider and appropriate housing choices.

BUILDING BLOCK 2

EMBRACING NEW ECONOMIC CHALLENGES AND OPPORTUNITIES

To stay competitive, we need to move up the value chain. We need to foster a knowledge and technology-based and high value-added economy with innovation and talents as the key drivers of growth, to cope with new mode of economic production and services, and to create more quality jobs with a range of skills.

ADEQUATE LAND AND SPACE FOR ECONOMIC GROWTH

To provide land at the right locations to meet the current shortfall and continued demand from various economic sectors to sustain economic growth and to create new job opportunities. These include premier offices and premises for modern industries, innovation and technology.

A DIVERSITY OF ECONOMIC SECTORS AND QUALITY JOBS WITH A RANGE OF SKILLS

To enhance economic capacity and resilience, to provide quality jobs with a range of skills, and to adapt to a knowledge and technology-based economy by providing favourable conditions to promote niche sectors and emerging industries while strengthening the pillar industries.

INNOVATION, TECHNOLOGY AND COLLABORATION

To reckon innovation and technology as an important driver of economic growth and to offer platforms and conditions conducive to promoting tech-ecosystems, innovation, technology and collaboration among the economic sectors.

SUFFICIENT AND SUITABLE HUMAN CAPITAL

To provide relevant education and training facilities such as for science, technology, engineering and mathematics (STEM), supporting infrastructure (e.g. science park and co-working spaces) and conditions conducive to nurturing, attracting and retaining valuable human resources and talents.

ADEQUATE AND TIMELY PROVISION OF SUPPORTING INFRASTRUCTURE

Increasing global and regional integration calls for better rail, road and air connectivity, infrastructure support and ICT enhancement.

BUILDING BLOCK 3

CREATING CAPACITY FOR SUSTAINABLE GROWTH

To support population increase and economic growth and improve liveability, we need more land and space, transport capacity, infrastructure capacity and planning in advance. We also need to minimise the demand for and optimise the use of resources for enhancing our capacity for growth in a sustainable way.

Our city is home to many species that are integral to the ecosystem. Championing environmental stewardship and enhancing environmental capacity are critical to sustainable growth.

We propose a vision-driven capacity-creating strategic planning approach, creating development capacity and at the same time enhancing the environmental capacity.

CREATING DEVELOPMENT CAPACITY

Adopting a multi-pronged and flexible approach to create development capacity through optimising the use of land and identifying new land to meet demands, to improve quality of living, and to cope with unforeseeable circumstances:

e.g. exploring the feasibility of accommodating brownfield operations in multi-storey buildings; re-planning of brownfield sites and deserted agricultural land; increasing development intensity taking into account infrastructure capacity and urban design considerations; exploring more rock cavern, underground space development and topside development; and creating land through reclaiming land within waters of low ecological value outside of Victoria Harbour.

Providing and enhancing supporting transport infrastructure and promoting integrated smart, green and resilient infrastructure while managing demands (e.g. bringing jobs closer to home, managing private car growth and use, making sewage effluent, harvesting rainwater, and converting waste to energy) and increasing the land efficiency of infrastructure.

CREATING, ENHANCING AND REGENERATING ENVIRONMENTAL CAPACITY

Benefits provided by the natural environment and biodiversity are crucial to our well-being and health. They include providing food and water supplies, regulating the micro-climate and purifying water. We seek to create, enhance and regenerate environmental capacity by integrating conservation and biodiversity considerations into planning and decision making, and by improving the environment.

Environmental Improvement

Improving air quality through environmentally friendly transport and better wind environment, protecting water-gathering grounds, using waste-to-energy approach to reduce use of resources, and restoring degraded areas, such as landfills and quarries, etc.

Biodiversity Enhancement

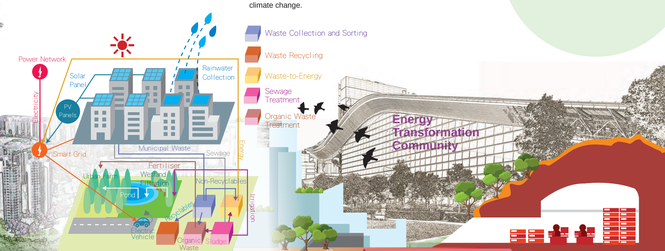
Protecting areas of high ecological value, revitalising water bodies and abandoned farmlands, setting up nature parks, advancing urban ecology and urban biodiversity, and promoting eco-shorelines and other blue-green infrastructure.

A SMART, GREEN AND RESILIENT (SGR) CITY STRATEGY

The SGR city strategy mainly concerns the built environment and involves:

- Promoting sustainable planning and urban design;
- Fostering smart mobility; and
- Devising an integrated smart, green and resilient infrastructure system.

It focuses on minimising demand for and the use of resources, promoting low-carbon smart economy and living, and enhancing city efficiency and business productivity. It is to be supported by a common spatial data infrastructure and ICT infrastructure. It will better prepare Hong Kong for tackling the key urban challenges of the 21st century, notably climate change.



We welcome your views by 30.04.2017

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Thank you

發展局 Development Bureau

規劃署 Planning Department