

HONG KONG

2030

planning vision and strategy
Executive Summary



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Time for Review

The HK2030 Study is tasked to update the Territorial Development Strategy (TDS) for Hong Kong recommending, on the basis of a series of assumptions, how our spatial environment should respond to various social, economic and environmental needs in the next 20 to 30 years, taking Hong Kong towards a shared vision.

Hong Kong can be proud for many things – being the world's freest economy, a vibrant international financial centre, and a trading hub with total trade value exceeding three times its gross domestic products, excellent port and airport infrastructure, just to name a few. However, increasing community awareness on other important issues, including the worldwide quest for sustainable development, has prompted a shift of emphasis towards the demand for quality living space, as well as a more vigilant attitude towards growth and development.

While the future is dictated by uncertainty, we need to plan ahead and be prepared for whatever the future has in store for us. At the same time, we should not only be passively responding to changes, but make bold attempts at actively shaping our future.



The turn of the century marked momentous changes for Hong Kong. The reunification with our motherland, which is undergoing dramatic change, in particular, has brought us numerous new opportunities, as well as challenges. Changes across the world are also affecting us tremendously. The forces of globalisation are putting in place a new world economic order, but concurrently posing immense challenges on the environment and social development. Moreover, technological advances are also constantly changing our work-modes and lifestyles. This is an opportune moment for us to review the directions for our future development, making sure that we are taking the right steps down a right path.

Doing It Right

The HK2030 Study was conducted in four stages:

Stage 1: Agenda setting and baseline review

Stage 2: Examination of key planning issues and establishment of evaluation framework

Stage 3: Formulation of scenarios and options

Stage 4: Formulation of strategies and response plans

While the study followed the footsteps of its predecessor (the TDS Review) in adopting a systematic, fact-based and analytical approach, it has made a revolutionary breakthrough in a number of aspects, including conducting more studies to support its working assumptions (for example on population growth), being more anticipatory of changes that our vision calls for, adopting a longer planning horizon, targeting at the formulation of a robust strategy that can cater for different future scenarios and undertaking extensive and multi-modal public engagement exercises.

In addition to adopting a more proactive approach in public consultation, a panel of non-governmental expert advisors has been set up, comprising specialists in the fields of economic, transport, environmental and Mainland affairs. The engagement of experts has broadened the perspectives of the study and reinforced partnership between Government and external sectors.

An unprecedented approach could bring about both benefits and challenges. Seeking agreement from the community on a vague and far from personal vision and issues not of their immediate concern is never straightforward. Broadening study perspectives, especially for a study of this scale, would render reduced attention on each of the perspectives and increase the difficulty in managing such a wide range of issues. Implications of any slight socio-economic and technological change would be magnified through a longer planning horizon, which could end up impairing the reliability of the working assumptions. We must therefore recognise that the HK2030 Study is meant to set the context for considering broad concepts and for making recommendations on strategic-level planning directions, rather than serving as a detailed blueprint dictating either the form or timing of future development, especially that of the longer term.



A Vision A Vision for the Future

The vision for Hong Kong to strengthen its position as **Asia's world city** was spelt out by the Commission on Strategic Development. It says in a report published in 2000:

"Hong Kong should not only be a major Chinese city, but could become the most cosmopolitan city in Asia, enjoying a status comparable to that of New York in North America and London in Europe."

Having consulted key stakeholders and community representatives, the Commission further fleshed out this vision into a series of recommendations centred on the themes of strengthening links with the Mainland, enhancing competitiveness, improving quality of life and reinforcing identity and image.

Translating the vision and recommendations into the spatial planning context, the HK2030 Study defines an overarching goal and specific planning objectives for the study, as follows:

Goal –

"The HK2030 Study should adhere to the principles of sustainable development to balance social, economic and environmental needs to achieve better quality of life for present and future generations."

Planning Objectives –

1. Providing a good quality living environment by ensuring our development is undertaken with due regard to the environmental carrying capacity; enhancing the townscape; and regenerating the old urban areas.
2. Conserving the natural landscape which is of ecological, geological, scientific and other significance and preserving our cultural heritage.



for the Future

3. Enhancing Hong Kong's hub functions by setting aside sufficient land reserves to meet the changing needs of commerce and industry; strengthening our role as a global and regional financial and business centre; strengthening our role as the international and regional trading, transportation and logistics centre; and developing further as an innovation and technology centre for Southern China.
4. Meeting housing and community needs by ensuring timely provision of adequate land and infrastructure for the development of housing and community facilities.
5. Providing a framework to develop a safe, efficient, economically viable and environmentally friendly transport system.
6. Promoting arts, culture and tourism to ensure Hong Kong will continue to be a world-class destination with unique cultural experience for visitors.
7. Strengthening links with the Mainland to cope with the rapid growth of cross-boundary interaction.



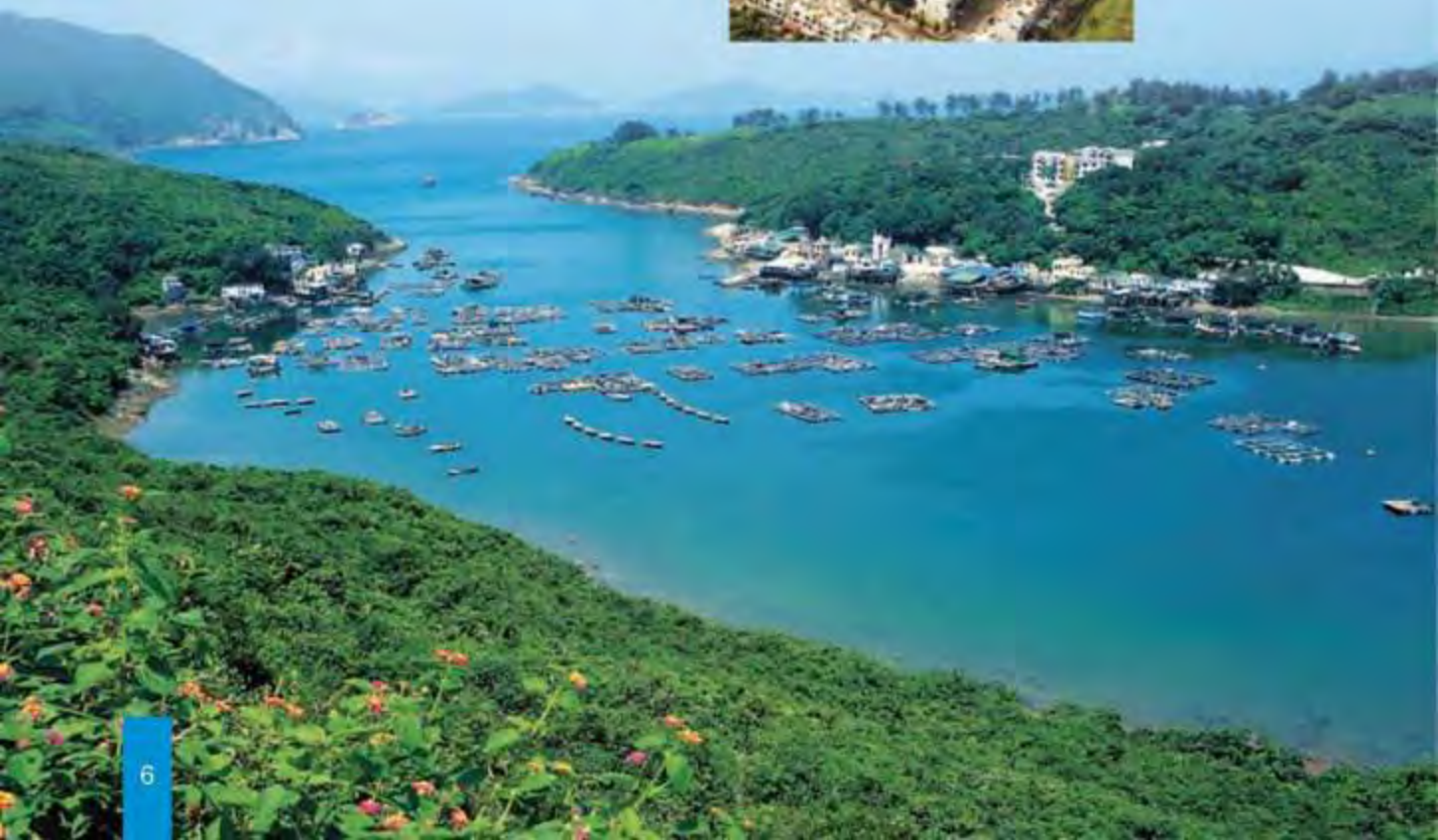
To take forward these goals and objectives, we have researched into the background of and identified key issues relevant to the living environment, the national dimension, the economy and population trends.

The Desired Living Environment

Improving the living environment is a primary aim of planning and planning for people is central to our study. It is therefore important to define conditions for a living environment that people aspire to. Based on our research and public views received, some of the key attributes have been identified.

- *A Green and Clean Environment* – It is widely recognised that a green and clean environment is essential for the health and well-being of our people, and thus this area should be treated with relative priority.

- *Good Aesthetics* – Quality urban design is needed for Hong Kong to be worthy of being called Asia's world city. Other than creating interesting streetscapes and urban profiles, we also need to pay attention to special locations like the harbourfront and the countryside.



Environment

- *Efficient Movements* – As development drives trip generation, an integrated approach for land use and transport planning is necessary. A spatial development pattern with more development around rail stations could facilitate optimisation of infrastructure capacities, enhance efficiency in the use of land and facilitate fast and mass movement of people in an environmentally friendly mode of transport. Also, encouraging mixed use neighbourhoods could reduce trip generation and length, in addition to promoting walking and cycling.
- *A Sense of Space* – Human beings on the whole have an innate yearning for space. While the sense of space may vary among people, providing overall balance and harmony is the key to good spatial design and planning.
- *Diversity to Provide Choice* – In recognition of the multiplicity of preferences, our planning strategy must aim to provide a wide selection of living choices to suit different people.
- *A Sense of Place* – Certain architectural, social, cultural or traditional characteristics can make a place or neighbourhood special or unique, foster a sense of identity and belonging as well as strengthen community bonds.
- *Good Urban Infrastructure* – Good urban infrastructure, including community facilities, open space, efficient and green energy supply, sewage and waste treatment systems, is an essential part of a city's development. We need to plan ahead and ensure timely provision.
- *An Inclusive and Caring Society* – It is also important that what we plan for could be equally enjoyed by all members of the community, irrespective of income, religion, race or abilities. Fair access to urban infrastructure can help enhance social mobility, build up a stronger sense of community and promote social harmony, which are all essential elements of our social capital.



The National

The National Dimension



Hong Kong's socio-economic ties with the Mainland have intensified over the past few decades, prompted by her open-door policies, economic reforms and accession to the World Trade Organisation. Our reunification with the motherland, signing of the Closer Economic Partnership Arrangement (CEPA), and establishment of the Pan-Pearl River Delta (PRD) Regional Cooperation Framework also marked significant moments in history.

This intensification process is reflected in the annual statistics for cross-boundary movements – person-trips rose from about 75 million in 1997 to about 160 million in 2006, while vehicle-trips (mostly by goods vehicles) grew from some 10 million to 15 million over the same period.



Growth in both cross-boundary person- and vehicle-trips is expected to continue at high speed. The commissioning of the Hong Kong-Shenzhen Western Corridor (SWC) and the Lok Ma Chau Spur Line in mid 2007 could help ease off part of the load, but new infrastructure for the medium to long term will be needed. As such, we are, in collaboration with relevant Mainland authorities, working on some important projects, such as the Hong Kong-Zhuhai-Macao Bridge (HZMB), the Guangzhou-Shenzhen-Hong Kong Express Rail Link (ERL) and the Liantang/Heung Yuen Wai Control Point with a view to accelerating their implementation.

Dimension

Apart from planning for transport infrastructure, a joint spatial planning study, the Study on the Coordinated Development of the Greater PRD Townships (the Greater PRD Study), is being conducted to identify issues of regional concern and serves as a platform for the exchange of planning information. In the light of rising global competition, close co-ordination with our neighbours in the PRD to capitalise on the advantages of the whole **city-region** would be of strategic importance.

As reflected in her Eleventh Five-Year Plans at the national, provincial and city levels, China will continue to instigate further changes towards modernisation. The role played by Hong Kong is thus experiencing further transformation. On the economic front, with our established institutions and framework of "one country, two systems", we should look beyond our existing roles as "gateway" and "springboard" to actively participate in Mainland's development. Socially and environmentally, we should not just be "good neighbours" who maintain a cordial relationship, but members of one family who share in the responsibility of making this whole city-region a liveable home. Hong Kong could aim higher to become an example of a true world city with a good living and working environment. To this end, we must strive to stay ahead, especially in achieving sustainable development.



The Changing The Changing Economy

The robustness of Hong Kong's economy has been proven in its many rounds of transformation as well as resilience upon downturns, especially during the Asian financial turmoil and the Severe Acute Respiratory Syndrome (SARS) incident. The current good economic performance certainly points to a promising prospect, with continuation of the restructuring process towards high-skill, high-technology and high-value-added services.

Looking further ahead, our economic link with the Mainland is still undoubtedly our greatest advantage in sustaining growth in the long run. As one of the most open economies of the world, Hong Kong also needs to look constantly at global trends. The forces of globalisation and technological advances are expected to continue to reshape the world economy and raise the level of competition. These trends require us to think deeper on new ways to compete in the world market successfully.

Our future economic vitality will be supported by a number of key sectors. We need to ensure that adequate and suitable land and infrastructure will be available in a timely manner to sustain their growth.



- *Finance and business services* – With our fine institutions and pool of financial talent from all corners of the world, Hong Kong's financial sector is poised to remain as one of our key economic pillars, not only in its capital-raising capacity, but in conducting renminbi business and other new areas. Our business services also play an important role and the signing of CEPA has brought in many new opportunities for this sector. The two sectors are expected to continue to expand and at the same time attract more overseas and multi-national corporations to set up office in Hong Kong, thus driving demand for prime grade offices, notably in the central business district.



Economy

- *Trade* – Being the world's eleventh largest trading economy, Hong Kong's vibrant growth in this sector is underpinned by Mainland's strong demand for industrial inputs for export production and sustained consumer demand from the United States and the European Union. Trading firms are mostly accommodated in secondary office/business nodes, such as those transformed from old industrial areas, and the progressive increase in flexibility of planning and land control in the past few years has facilitated this transformation process. A robust trading sector requires the support of, and in turn enhances growth in, the convention and exhibition business. On top of current expansion plans, further provision will need to be considered to address longer-term requirements.



- *Logistics* – In the face of regional competition, Hong Kong's logistics industry, leveraging on our first-rate port and airport, is making every effort to improve efficiency and provide speedy, reliable and full-scale value-added logistics services so that quality can compensate for cost differentials. However, due to the scale of the infrastructure required to support this sector, we need to ensure that the consideration and planning of new facilities to meet future needs should be made well in advance.
- *Special industries* – Innovation and technology are important drivers of the long-term growth of an economy for both production and services. The Government has strong commitment in driving forward innovation and technology through establishing a multi-faceted strategic framework and facilitating the provision of suitable and adequate technology infrastructure, such as industrial estates and the Science Park.

- *Cultural and creative industries* – Cultural and creative industries, broadly referring to industries with value added through creativity, could provide an enabling environment to nurture creative talents (especially among young people), arouse awareness of the importance of this sector, generate employment, and support intra-regional and international cultural networks. As this is a rather diverse sector, we need to identify different user needs and plan for their accommodation and infrastructure requirements accordingly.



- *Tourism* – The tourism industry contributes significantly to both Hong Kong's economic growth and the overall employment, especially jobs requiring a lower skills level. New Mainland policies implemented since 2003 have boosted visitor arrivals and tourism receipts. Taking advantage of our geographical location, Hong Kong can continue to act as a tourism gateway of China, capturing both outbound travellers from the Mainland and en-route inbound visitors to the Mainland through the planning of more multi-destination tours. Within Hong Kong, there is scope to widen our tourism offer, through the development of alternative tourism, such as ecotourism and cultural tourism.
- *Human resources* – Other than "hardware" planning, the quality of our human capital also has a direct bearing on Hong Kong's economic competitiveness. We need to ensure an adequate workforce to sustain our economic growth, not only in size, but also of the right calibre.



Population Dynamics

Hong Kong's population has more than doubled in the past 40 years, reaching almost 7 million as of mid-2006. The population growth has largely been attributed to migration from the Mainland under the One-way Permit Scheme, which contributed nearly one million of our population growth since the 1980s. Fertility rates are extremely low and the falling trend continues, although total births are "replenished" by an increasing number of children born to Mainland mothers in recent years. This latter phenomenon could create uncertainty in the planning for education, housing and social facilities as it is not clear whether (and, if so, when) those babies brought back to the Mainland would return to Hong Kong. This needs to be closely monitored.



Hong Kong's labour force represents about half of our total population, with a participation rate of about 60%. However, the education and skills level, though rising in recent years, still needs to be improved to that required of a knowledge-based economy.



With the rise in social and economic interactions with the Mainland, our population does not only grow in number but in dynamism. While the number of "mobile residents", as officially defined, is not significant, the mobility patterns of residents usually living in Hong Kong (i.e. "usual residents") but travelling frequently out of Hong Kong, and those not usually living in Hong Kong but come back here to work or for other purposes also warrant our attention. Both movement records at the immigration control points and results of various surveys indicate that mobility of Hong Kong people in and out of the territory is extremely high. This has posed great pressure on our cross-boundary infrastructure.

Looking ahead, with persistently low fertility rates, our population growth is expected to slow down significantly. The latest official projections indicate that Hong Kong's population will reach 8.6 million by 2036, representing an increase of about 25% from now, or about 57,000 a year on average.

Low fertility rates also lead to two phenomena – smaller household size and ageing population. Household size is expected to fall from the current average of 3.0 to 2.6 in 2033, and the proportion of persons aged 65 or above will rise from the current 12% to 26% in 2036. These trends may have significant implications for the planning of housing and other social facilities.



While our workforce will continue to expand in the coming years, it will begin to fall by the middle of the next decade as the effect of ageing population comes in. A shrinking workforce will impact significantly on our economic sustainability. Moreover, with deepening socio-economic ties between Hong Kong and the Mainland and increasing globalisation, the mobility of Hong Kong people, especially the working population, is expected to continue to rise at a steep curve. Pressure on cross-boundary facilities and air services will intensify.

Defining Our Needs

The HK2030 Study has depicted a Reference Scenario (RS) which attempts to translate our vision for Hong Kong into a set of working assumptions and define some of our social, environmental and economic needs in more concrete and, where possible, quantitative terms. It highlights those factors which need to be taken on board in the consideration of a most appropriate spatial development pattern for Hong Kong and in conducting various impact assessments on this pattern.

Assumptions in our RS may not follow strictly the official statistics as we need to be more anticipatory of changes and pro-active in defining our future in such a long-term strategic planning exercise. On the other hand, the RS must also be plausible and achievable. Key working assumptions of the RS are shown in **Table 1**.

Table 1 Key Working Assumptions of the RS

	Base Year ¹	2010	2020	2030
Population (million)				
Resident	6.8	7.2	7.8	8.4
Working	3.2	3.6	3.8	3.9
Employment (million)	3.0 ²	3.5	3.7	4.0
Annual GDP Growth (%)	-	4.0	3.5	3.0
Housing (thousand)				
Stock	2,394	2,642	2,948	3,319
Cumulative Requirement	-	248	553	924
Economic Land³ (million m²)				
CBD Grade A offices	4.1	5.1	5.8	6.7
General Business	33.0	35.5	36.2	38.2
Special Industries	4.0	5.5	6.0	6.7

¹ As the data was largely compiled in 2005 when information on 2004 was not fully available, the Base Year has been taken to be 2003 for the sake of consistency. This applies to all references to the Base Year in this report.

² The employment estimates for 2003 (i.e. 3.0 million) is considered to be uncharacteristic because of the impacts of SARS. Therefore, the 2002 employment estimates (i.e. 3.2 million) has been used to represent the Base Year figure and for deriving the employment assumptions for future years.

³ The figures included in the table reflect the floorspace demand for the three types of economic land. Their corresponding net requirements are derived taking into account the existing surplus stock and the need to accommodate a 'natural vacancy' factor.

Deriving Planning Choices

Whilst providing choice is important, it is recognised that making group decisions could be a difficult task as priorities and likings of individuals could be very different. The HK2030 Study emphasises an interactive and collective thinking process both within Government and among stakeholders of the community. Within Government, we have a role of ensuring cohesiveness of different policies as they feature in our planning strategy. At the same time, we need to engender wide ownership of this strategy among Hong Kong people.

After years of rapid urbanisation, overtaxing heavily the environment and disrupting social balance, the world has now awakened to the notion of sustainable development. This implies that a city's growth need to be well managed, with more use of brownfield land and less of greenfield land. The timing of development and level of government intervention are also critical factors.



Due to the long lead time required for the production of development land, the "landbanking" concept has been floated to ensure land will be available in time to capture "windfall" opportunities. This concept may be applicable to land extensive uses of which the demand is less predictable, e.g. special industries. For major infrastructure, Government has a role to monitor demand carefully and instigate implementation reasonably ahead of demand. For other land uses, in step with our "big market, small government" principle, Government should maintain a facilitating role and leave the actual delivery of the supply to the market.

In deriving different development alternatives, we have taken a "component approach" by identifying options for individual land uses. This involved a three-step process including a coarse-screening exercise to screen out "no-go areas" (**Annex I**) and a broad assessment of the available choices (**Annex II**).

Choices



Next, the choices were amalgamated to form two development options

(**Annex III**), namely the Consolidated Option and the Decentralisation Option, to facilitate consultation with the public before deriving the Preferred Development Option based on community choices.

The Consolidation Option involves making more use of available opportunities in existing urban areas, fast-tracking development of Kai Tak, facilitating more urban renewal and putting back implementation of new development areas (NDAs) in the New Territories. This option allows more efficient use of land and infrastructure, conserving more rural land and avoiding making heavy investments on developing NDAs at an early stage when land supply from existing built-up areas is still available. But it leaves less room for relieving congestion in the Metro Area (i.e. the areas covering Hong Kong Island, Kowloon, Tsuen Wan, Kwai Chung and Tsing Yi) and may exert pressure on the capacity of infrastructure at certain urban locations.

The Decentralisation Option proposes earlier realisation of NDAs, developing more NDAs, reducing the extent of development in the Metro Area and encouraging more urban rehabilitation. This option allows scope for achieving lower development densities in the Metro Area, enhances viability of infrastructure in northern New Territories through earlier and more development of NDAs, provides a wider choice of housing types and locations, helps improve the degraded rural environment, and allows a more balanced distribution of population across the territory. However, NDAs require substantial government investment (although it is retrievable through subsequent sale of sites at the NDAs), demand longer travelling distances and time, and could create social disruption in the process of land resumption and site clearance.

Preferred Preferred Development Option

As neither of the two options stands out, the Preferred Development Option, i.e. spatial development pattern based on which impact assessments are conducted, (**Annex IV**) has been derived by extracting the more desirable elements from each of the options forming a hybrid. Changes in the working assumptions (e.g. reduced population assumptions) during the course of the study have also affected the outcome of the Preferred Option.

Spatial Planning Concepts and Functions

Our preferred spatial development pattern is underpinned by a number of broad planning concepts – prudent use of land resources by planning for more development around rail stations to facilitate fast and mass movement of people in an environmentally friendly mode of transport, coupled with better utilisation of development opportunities in the existing built-up areas where infrastructure capacities permit. However, care should be exercised to take into account urban design considerations (such as building mass and height, provision of breezeways etc.) as well as heritage conservation objectives, in the detailed planning of new developments. While massive construction programmes like the new towns of the 1970s to 1990s are not recommended at this juncture, NDAs in the New Territories of a moderate scale (each with a population of roughly 100,000 to 200,000) are proposed. This approach of optimising opportunities in the urban areas would allow us to preserve much of our rural land.



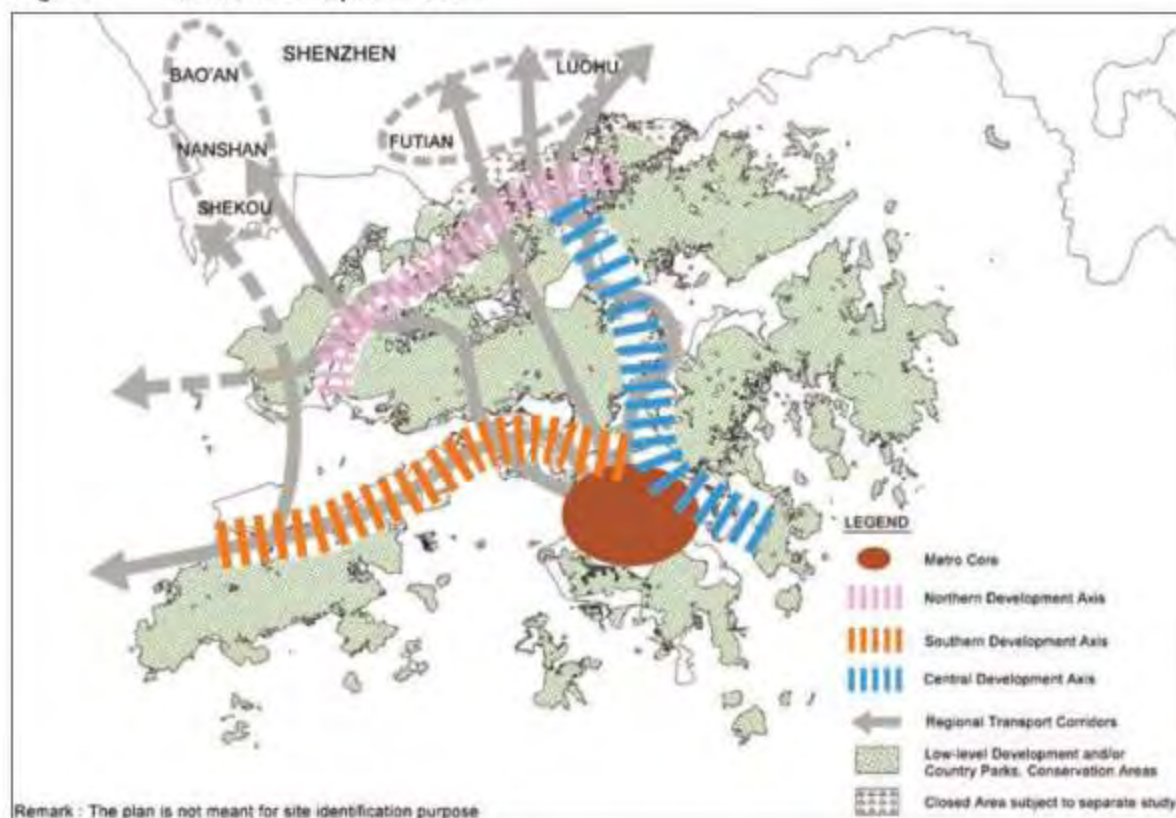
In terms of future development directions, the core urban areas will still remain as the focal point of development and urban activities. Further development opportunities will be found along three axes – (i) the first in a north-south direction roughly aligning with the East Rail; (ii) the second spreading westwards from the core towards Lantau; and (iii) the third alignment in northern New Territories located close to the boundary with Shenzhen (Figure 1). These development area/axes will serve the following functions:

- *Metro Development Core* – Intensive commercial/business zones and housing for urban-style living;

- *Central Development Axis* – Community-type housing and education/knowledge-building facilities;
- *Southern Development Axis* – Logistics and major tourism facilities; and
- *Northern Development Axis* – Non-intensive technology and business zones and other uses that capitalise on the strategic advantage of the boundary location.

For the rest of Hong Kong in areas falling outside existing developed areas, we would recommend a lower level of development with conservation being a priority consideration.

Figure 1 Schematic Spatial Plan





Housing

With these spatial concepts and functions in mind, the future supply of new housing land will be provided mostly in the existing urbanised areas, including the Metro Area (accommodating some 40% of the additional population) and remaining parts of existing new towns (another 30%). The residual 20% and 10% will respectively be accommodated at NDAs and scattered across the rural areas in the New Territories.

Prime Offices

For Grade A Offices needed to support the continued growth of our financial and business service sectors and sustain our role as a choice location for corporate headquarter functions, the focus will be given to providing more office land of prime quality at the existing central business district (CBD) which has been extended to Admiralty and Wan Chai, and perhaps also Tsim Sha Tsui. We can make use of remaining undeveloped plots and freeing up spaces by decentralising some of the government offices and other government uses that do not require a central location.

A similar filtering process within the private sector is also expected.

Concurrently, West Kowloon will become a major rail hub upon completion of the Kowloon Southern Link and the ERL, in addition to the existing Airport Rail. This location also has a point-to-point connection with the heart of Central via the Tung Chung Line. Together with the new commercial building (under construction) at the Kowloon Station Development, this locality will offer good potential for the development of a new cluster of prime offices. The Kai Tak Development, too, could provide space for another cluster of offices to meet longer-term demand. Meanwhile, we would assume that the private market will continue to generate new office supply to meet some of the demand, including redevelopment at the CBD as well as further expansion of the office node at Quarry Bay.





General Business Uses

The demand for general business uses (i.e. non-CBD Grade A offices and traditional industrial/warehouse uses) is expected to be largely met by utilising the unrealised development potential arising from the redevelopment of existing industrial areas and secondary office nodes, such as Kwun Tong and Kowloon Bay.



Employment Uses in the New Territories

As office activities have a tendency to agglomerate in the urban core areas, we do not propose decentralisation of such uses out of the Metro Area. However, to meet aspirations for more employment opportunities closer to places of residence, we recommend that employment uses of special categories could be provided in the New Territories. These include new zones to accommodate industries of improved technology and facilities related to higher education, both to be developed at part of the proposed NDA schemes.

Separately, subject to the resolution of various development constraints, parts of the Frontier Closed Area (Closed Area) could also be deployed for employment uses, especially those capitalising on our connection with the Mainland. Possibilities will be examined in the "Land Use Planning for the Closed Area – Feasibility Study".



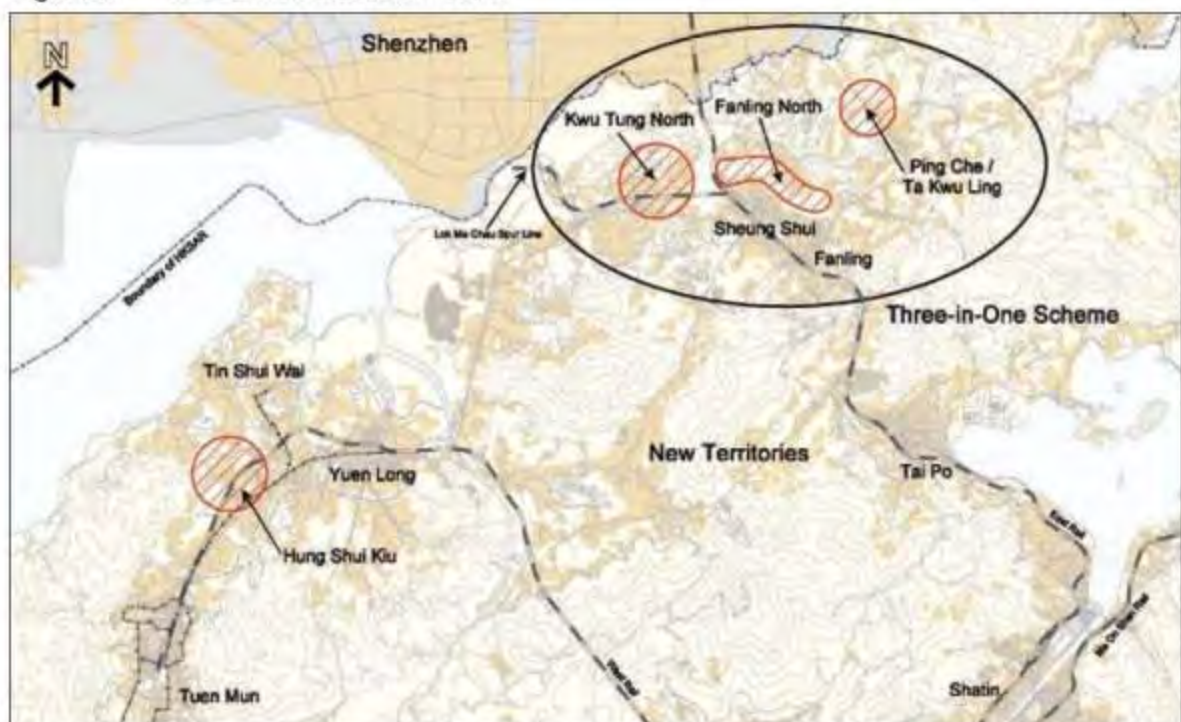
New Development Areas

While massive construction in the form of the conventional new towns is not recommended, we propose implementing some of the previously conceived NDAs, which would, individually, be no more than a quarter of the size of most of the current new towns. Other than providing housing land, NDAs could serve to meet other land use requirements, such as special industries and educational uses, which will also provide employment. NDAs also offer an alternative choice of living through the development of lower-density buildings (with plot ratios comparable to earlier-generation new towns like Sha Tin) in a quality living environment, with convenient access

to mass transportation and community facilities. Besides, by shifting some of the population from the dense urban areas to the New Territories, we could achieve a more balanced territorial development pattern, and help reduce the level of intensification in the urban areas.

Given the slower population growth, there is no need to implement all of the NDAs identified in previous studies within our planning horizon and the priority for implementation has therefore been considered. The development of NDAs at Kwu Tung North, Fanling North and Ping Che / Ta Kwu Ling (Three-in-One Scheme) and Hung Shui Kiu (Figure 2) have been prioritised mainly for the following reasons:

Figure 2 Broad Locations of NDAs



1. These NDAs were examined in the past and the public were consulted on the preliminary proposals;
2. They (except Ping Che/Ta Kwu Ling not recommended for residential use) would be accessible by rail with the construction of new stations; and
3. They are contiguous to existing new towns such that it would be more cost effective in the provision of infrastructure. While proximity to developed areas allows the sharing of community facilities, a more flexible approach in their provisions may be considered.



Development Densities

In recent years, as our development matures and with our community becoming more aware of our cityscape, the effect of high-rise and high-density development is more keenly felt, in particular in the existing urban areas. Both our research and public comments indicate that the development layout and design could help ameliorate the associated urban problems (such as stagnant air, heat island effect) and therefore need to be examined together with the assignment of plot ratios to derive a better “formula” for our urban living environment.

In fact, high-density developments have both merits and demerits, and maintaining diversity in intensity of development will be important. To provide a more spacious live-work environment, we recommend that NDAs should be planned for lower densities, similar to what has been done to the remaining areas of some of the existing new towns. For urban areas, the prevailing densities could be maintained, but development densities of sites in congested localities and the distinctive harbourfront need to be rigorously reviewed giving due regard to urban design and environmental implications (e.g. improving air circulation, providing view corridors). To support this work, further studies on air ventilation and shadow areas will be conducted.



Protection of Rural Areas

One advantage of a high-density development form, which few of us may realise, is that it has enabled more people to live close to nature. With past endeavour to avoid development onto countryside areas, Hong Kong has also been able to engender a rich biodiversity. Through designation of Country Parks, Special Areas and various conservation zonings on statutory town plans, over 40% of Hong Kong's land area is now under statutory protection, with only slightly more than a fifth being urbanised. Under our Preferred Option, even with the implementation of the proposed NDA developments and major infrastructure, the proportion of urbanised land by 2030 would still be maintained at around a quarter. Hence, the rest of Hong Kong, comprising largely woodland, shrubland, grassland, agricultural land and rural settlements will primarily remain untouched by strategic development proposals, thereby facilitating the continued protection of our valuable natural resources.


Predetermined

Predetermined refer to those strategic planning components that are being taken care of outside the HK2030 Study. The generation of options and decision on these components are related but independent to this Study. While impact assessments have been (or will be) carried out for the individual components or projects in their respective sectoral studies, inclusion of these components in the Preferred Option could ensure that the overall cumulative impacts would be considered.

Major predetermined included in the Preferred Option include the two proposed sites for Container Terminal No. 10 at Northwest Lantau (NWL) and Southwest Tsing Yi (SWTY), and major transport infrastructure proposals. Some of the forecast data of the Hong Kong International Airport (HKIA) 2025 published in December 2006 has also been taken on board in the HK2030 assessments, and Government will keep in view the proposal to examine the feasibility of developing a third runway, having regard to the development of airports in the PRD.



A Basis for Evaluation

ther than an initial coarse screening and broad evaluation of the two development options, more detailed impact assessments have been conducted on the Preferred Option on the basis of a five-stream evaluation framework (**Annex V**). This framework has been developed on the basis of sustainable development concepts in line with the overarching goal for the Study, and covers the environmental, economic/financial, land use planning, social and transport aspects.

Although strenuous efforts have been put to ensure that results of the detailed evaluation could be as accurate as possible, for a long-term study such as this, many of the input assumptions could be subject to a high degree of uncertainty, giving rise to a reduced level of accuracy in the results, especially for the longer-term assessments. We should regard the assessments as a means to identify issues early in the planning process in order to allow us to set out along a more desirable path of development, and to provide us a better chance to successfully tackle these issues further down the line.



Impact Assessments

Environment

A Strategic Environment Assessment (SEA) has been conducted as an integral part of the HK2030 Study. It has contributed to each stage of the Study by providing strategic environmental information and suggestions to facilitate formulation of development options which could meet the environmental objectives conducive to the realisation of our vision.

Apart from conducting baseline environmental reviews, the SEA has also been tasked to identify constraints, opportunities and key issues pertaining to the local environment, as well as those arising from development of the wider PRD region. Broad-brush evaluations of the development options and the Preferred Option have been conducted on the nine aspects of air quality, water quality, solid waste, noise, ecology, cultural heritage, landscape, hazard and energy. Details of the SEA are contained in a separate technical report prepared by consultants.

While the assessment results are contingent upon a number of assumptions which are subject to uncertainty, the SEA could be regarded as an effective tool to flag up environmental issues of the proposed developments/projects at an early stage for further study in future. We need to positively confront all the on-site and off-site environmental issues including water, air, aircraft and traffic noise, sewerage infrastructure, ecology, visual impact, hazard, landscape and cultural heritage effect associated with the implementation of various projects such as the proposed NDAs, cross-boundary infrastructure, possible uses of the Closed Area and airport and port developments. Some of these environmental issues could have territory-wide implications cumulatively and may affect the long-term sustainability of Hong Kong. At present, feasibility studies and environmental assessments for some of the proposed development projects are being undertaken but are yet to be completed. For those proposals which are still at a preliminary planning stage, further feasibility studies and environmental assessments are required to look into their suitability, feasibility, environmental impact and mitigation measures in detail at a later stage.

Economic/Financial

The economic and financial assessments conducted in Stage 4 of the HK2030 Study reaffirmed that the financial cost of the proposed infrastructure development to the Government can be, in broad terms, recovered by the revenue return, subject to further detailed assessment. Implementation of NDAs in the New Territories might incur some economic cost for using rural land resources. With respect to the future container terminal development, the analysis concluded that both possible locations, i.e. NWL and SWTY, have their benefits given their close proximity to the proposed HZMB and the existing container terminals in the Kwai Tsing District, respectively.

Overall speaking, the Preferred Option would enhance Hong Kong's economic competitiveness through the provision of adequate land for prime offices, general business uses, special industries, development of NDAs and new strategic transport infrastructure and an additional container terminal.

Although there is no quantitative data on the number of jobs to be created during the construction and operation stages of the proposed developments, it will likely help create considerable employment opportunities in the medium to long term when they are implemented. Moreover, the HK2030 Study has assumed a higher intake of talent and skilled workers after 2021 to fill the shortfall of workers against the projected employment.

It is expected that adequate housing supply in the market with the NDA development, further development of new towns and urban renewal projects to meet long-term housing needs will help contribute to the stabilisation of private rent and prices (particularly for the mass housing market).



Land Use Planning

The Preferred Option can adequately address the land requirements for housing and various other uses. As the sources of land supply are diverse, it could minimise the uncertainty in land provision both in terms of timing and quantity. The Preferred Option can help decentralise some of the future employment to Kowloon and the New Territories to achieve a more balanced distribution and alleviate the burden on the cross-harbour transport routes.

The initial screening of “no-go” areas (including the vulnerable conservation areas) from our potential development options has helped to ensure proper segregation of incompatible land uses. Optimisation of development opportunities in the existing built-up areas combined with development of moderate-scale NDAs could enable us to minimise the negative impacts on the important ecological attributes of Hong Kong and continue to conserve much of our countryside and ecologically sensitive areas.

Social

The Preferred Option will provide adequate housing land and infrastructure to meet population growth needs, contributing to the overall effort of maintaining a fair and stable operating environment to enable sustained and healthy development of the private property market, which in turn has an effect on housing affordability.

Under the Preferred Option, we foresee the population to be housed in the New Territories will increase from 40% to 45% by 2030. The employment opportunity in the New Territories will rise from 23% to 28% across the same period. As a result, there will be a general improvement in the distribution of resident workers and employment opportunities. The number of persons affected by urban renewal and clearance, and therefore the potential social disruption, should have been kept to the minimum as only a small proportion of the potential housing supply will come from redevelopment of private housing under our Preferred Option.

Transport

With the completion of various railway projects⁴ included in the Preferred Option, coupled with an integrated land use-transport-planning framework, more people will be encouraged to use the rail system, and domestic rail patronage is therefore expected to rise considerably in the share of total trips by 2030. On the other hand, for cross-boundary travel, there has been a steady decrease of the rail share since 2000 albeit rising in absolute numbers. This general trend is expected to continue in spite of the completion of the Lok Ma Chau Spur Line, the ERL and the Northern Link.

In terms of average travel distance and journey time, the increase will be gradual and mild. For cross-boundary travel, the planned HZMB will shorten the distance from Hong Kong to Macao and Zhuhai by 95 km to about 30 km, and reduce the journey time between landing points to within half an hour. Similarly with the completion of the ERL, the journey to Guangzhou can be made within an hour from West Kowloon, reduced by some 45 minutes.

The transport assessment reveals that the assumed strategic domestic road networks for 2020 would generally be able to cope with growth needs. Thereafter, it may be necessary to consider options to address the capacity problems along the cross-harbour routes, and between Lantau and the Metro Area. Options may include the provision of an additional harbour crossing and a Tsing Yi-Lantau Link before 2030.

Overall Assessment

On the whole, performance of the Preferred Option in all five aspects under the evaluation framework has been broadly evaluated, with issues flagged up for attention at later planning stages. Moreover, impact assessment at the project level will still be required in future to ascertain the feasibility of individual components of the Preferred Option.



⁴ Including the Sheung Shui to Lok Ma Chau Spur Line, Northern Link, Tseung Kwan O South Station, Kowloon Southern Link, Shatin to Central Link, Kwun Tong Line Extension, West Island Line, South Island Line (East) and (West) and North Hong Kong Island Line.

The Future

The Future Roadmap

Based on the Preferred Development Option and results of the impact assessments, a Recommended Development Pattern (**Annex VI**) is derived, embracing the overarching study goal for sustainable development and the spatial planning concepts and functions mentioned above.

Sustainable development demands striking a fine balance between social, environmental and economic considerations as well as taking on good resource management. We need to carefully re-assess the capacities of our developed land and existing infrastructure to avoid wastage, manage our needs with an innovative approach that allows us to do more with less – strive at higher quality and efficiency while being prudent in resource utilisation and encroachment onto greenfield land in the planning for development. This focus on quality rather than quantity is driven by community aspirations, and facilitated by a slower population growth.

The recommended strategy is structured in such a way as to provide a roadmap with clear **signage** to indicate where it is taking us, **milestones** (or checkpoints) to monitor progress or changes, and **escape routes** (response mechanism) to allow us to alter our strategy as necessary to respond to future changes.

Taking forward recommendations of the Commission on Strategic Development which were re-affirmed at the HK2030 Study's public consultations, we propose that the planning strategy should focus on three broad and interlocking directions:

- providing a quality living environment;
- enhancing economic competitiveness; and
- strengthening links with the Mainland.



Direction I – Providing a Quality Living Environment

To provide a quality living environment, we need to, through a communication and understanding process, create a sense of place which recognises local character to foster a sense of identity and belonging. Consideration should be given to the needs of people of different backgrounds and abilities to ensure diversity and inclusivity in the planning for facilities, and that social resources, such as public housing, are used effectively and efficiently for long-term sustainability. A sense of place is also reinforced by a harmonised and balanced built environment advanced by good urban design, as well as respect for heritage, cultural characteristics and natural endowments. Where appropriate, consideration of features of conservation value should be made in an area-wide and comprehensive manner, rather than in isolation.

Smart use of space and the built fabric could help us make better use of our limited land resources. This can be achieved through encouraging mixed-use developments to create different forms of “work-live” environments suiting different lifestyles, and promoting re-cycling of land and buildings through conversion. By doing so, we hope to contain unnecessary urban sprawl and limit the extent of encroachment onto the countryside as well as environmentally sensitive areas.

Good environmental quality is fundamental to a healthy living environment. Protecting the local environment is also our responsibility as part of the global effort to save the earth. Moreover, we need to strike a proper balance to ensure that our development needs are met without doing unacceptable damage to the natural environment. Adequate co-ordination with environmental and other policies is thus necessary. Due to the intricate relation between land use, transport and the environment, a good land use plan can help reduce trip generation and rationalise traffic flows and help minimise the level of traffic-induced pollution. The rail-based development approach recommended under the TDS Review and the Third Comprehensive Transport Study should be rigorously pursued. In parallel, good urban/building design practices which enable better air circulation and more efficient energy use, and foster a greener and healthier lifestyle (such as engaging in more walking and cycling) should be encouraged.



While quality is important, ensuring adequate quantity and timely provision of housing land and supporting infrastructure is still a principal objective. We also need to pay attention to widening housing choices in terms of both type and location. Available opportunities at existing urban areas, including West Kowloon, Kai Tak, Tseung Kwan O and Tung Chung, will be given priority for development. The process of urban redevelopment will continue to renew the old urban fabric that has come of age, but at the same time, we would encourage more rehabilitation and revitalisation which would not only prolong building life and create vivacious neighbourhoods, but help to preserve elements of heritage value. New development areas will also be developed along rail routes to provide a mixture of land uses in a quality living and working environment.

Direction II – Enhancing Economic Competitiveness

To enhance economic competitiveness, we will continue to reinforce our hub functions by ensuring adequate land and infrastructure will be available in time. This includes the supply of prime offices at the CBD and at planned nodes outside the CBD. Other forms of employment space will also be provided at business nodes at the urban fringe and special industrial zones in the New Territories. We also need to co-ordinate

closely with the Port Development Strategy and Airport Master Plan. As for the tourism sector, we should continue to enhance our tourism infrastructure and make better use of our many resources (including cultural/heritage and natural resources) to diversify our offer, facilitate development of niche markets and alternative tourism such as ecotourism and cultural tourism.

Other than supporting the growth of pillar and growth industries, we also need to take care of small and budding businesses. The revitalisation of degenerated urban and rural areas will revive both the economic and physical conditions of the areas, and could help foster development of small businesses and encourage growth of innovative and creative enterprises, including alternative tourism.

Human capital is a key factor in sustaining our economic competitiveness. As the world advances towards a knowledge-based economy, cities compete intensely for talent and skills. Hong Kong's ability to attract Mainland and overseas talent and retain local talent is dependent on the variety of development opportunities as well as the anticipated quality of life and the environment. Therefore, our efforts in improving environmental quality are not only meant for the well being of our own people, but could help enhance the business environment and sustain economic growth. In addition, nurturing home-grown

talent is equally important. While the key to better education and training may well lie on the “software” side, there is room to strengthen the education infrastructure to support development of local human capital and attract overseas and Mainland students, thereby reinforcing Hong Kong’s role as an education hub of Southeast Asia. Opportunities for providing new education facilities at Kwu Tung North will be explored in a coming study.

Needless to say, leveraging on our links with the Mainland is still our “sure bet” in sustaining competitiveness of our economy. How this is achieved is further elaborated under the third direction.

Direction III – Strengthening Links with the Mainland

It is evident that the future of Hong Kong relies heavily on how well we can position ourselves to capitalise on the Mainland’s rapid development. With our country’s accession to the WTO, adoption of new policies to support economic growth, as well as our signing of CEPA, there is an unparalleled opportunity for Hong Kong to benefit from the spin-off of the Mainland’s economic growth, through engagement in business activities or active participation in Mainland projects.

While a lot can be done to strengthen ties with the Mainland, our planning strategy focuses on those aspects related to land use and infrastructure planning.

Maintaining smooth and unimpeded flows of people, vehicles and goods is important to sustain Hong Kong’s growth. As a gateway to China, we should make effective connections to Mainland’s transport network and transportation systems (including land-, water- and air-based), in particular those within the PRD and Pan-PRD regions. In the light of plans to extend the highway and railway networks within these regions and to other parts of China, opportunities should be explored to hook up with their highway system, high-speed passenger rail lines, the PRD Rapid Transit System as well as domestic mass transit railway systems and major transportation nodes to provide direct, convenient and high quality services to enhance both passenger and cargo flows and expand our catchments further into inland China. We should also formulate an overall strategy for the development of transport infrastructure to look after regional development needs and support our economic growth.



Developing an efficient land-based rail system could complement our air services, which have a much wider catchment and can better serve the demand of customers who tend to be more time-conscious. It could also help to enhance connection between the Hong Kong International Airport and other airports in the PRD. Concurrently, as China's springboard to the world, Hong Kong needs to continue to upgrade its international air services network, both within Southeast Asia and with other parts of the world.

To capitalise on the strategic locational advantages of boundary areas, studies are being conducted on the Lok Ma Chau Loop and the Liantang/Heung Yuen Wai Control Point. Another major planning study on the use of land released by the reduction of the Closed Area has also commenced. In addition, opportunities for leisure/recreation venues or tourism spots at Sai Kung/Mirs Bay and islands near our southern boundary could be explored jointly with the relevant Mainland authorities.

The effective exchange of information is conducive to studies on the regional development, which could serve as a basis for our own planning work. The Greater PRD Study, carried out jointly with the Guangdong authorities under the Expert Group on Hong Kong/Guangdong Town Planning and Development, could provide a platform for information exchange. Such efforts should continue to be strengthened. Besides, with Hong Kong's experience and knowledge in various sectors, especially our international perspective, we are well positioned to share such information with our Mainland counterparts in an effort to support our country's further advancement. This can be accomplished through various formal or informal channels.





In the context of the evolution of the PRD Region as a multi-centred city-region, Hong Kong needs to recognise the synergy of co-operation and coordination. The Greater PRD Study could address some of the common issues between Hong Kong and the PRD Region with a view to formulating a regional strategy to the overall benefit of the Greater PRD Region, not only in relation to our economic strength, but also the environment and social harmony. We must recognise that as our neighbouring cities

make further progress in their development, our differences will become increasingly obscure. From the socio-economic angle, it is not unrealistic to assume that all could become one within the next decade or so. In our planning work, we need to be more anticipatory of the emergence of **“one region”** and its likely impacts on matters such as migration patterns and re-organisation of economic functions across the region, and in turn the repercussions on our planning strategy.

What If...

What If...

In order to cater for circumstances other than those assumed under the RS, and to ensure robustness of the proposed planning strategy, alternative scenarios (or “What If” Scenarios) have been considered.

To facilitate more focused consideration, we have narrowed the wide range of possibilities to the two scenarios of “low population growth – moderate economic growth” (LPGS) and “high population growth – high economic growth” (HPGS).

The LPGS describes a situation under which Hong Kong maintains the level of economic growth assumed under the RS. The lack of low-skill employment in Hong Kong, coupled with improved living conditions and lower cost of living across the boundary, may result in the relocation of some of our workers and retirees to the Mainland, giving a slower population growth in Hong Kong. However, we would expect that some of the “emigrants” will commute back to Hong Kong to work, thus widening the difference between the daytime and night-time populations and resulting in a high level of cross-boundary flows. **Table 2** summarises the major assumptions adopted under this scenario.

Table 2 Key Assumptions Adopted Under the LPGS

	Population		Daytime Population		Working Population		Employment	
	RS	LPGS	RS	LPGS	RS	LPGS	RS	LPGS
Base Year	6.8	6.8	6.8	6.8	3.2	3.2	3.0	3.0
2010	7.2	7.1	7.2	7.1	3.6	3.5	3.5	3.5
2020	7.8	7.6	7.8	7.7	3.8	3.7	3.7	3.7
2030	8.4	8.0	8.4	8.3	3.9	3.7	4.0	4.0

Under this scenario, the total requirement for housing up to 2030 will reduce by about 170,000 units or (18%) and a slightly lower requirement of land for economic uses due to a lower level of domestic consumption.

The demand for cross-boundary traffic is expected to increase as a result of the 300,000 cross-boundary workers, which will result in 600,000 daily commuting trips, vis-à-vis the assumption of only about 70,000 trips under the RS. Much of this traffic demand is assumed to be met by rail, while the rest would be shared by cross-boundary bus or coach, and to a lesser extent, private cars.

Under the HPGS, we have assumed a GDP growth rate of 0.5% higher than that assumed under the RS for the medium and long terms. More jobs will be created

in view of a higher economic growth, resulting in a higher job creation ratio for these periods as compared with the RS. A greater number of imported talent and skilled workers have been assumed to cope with employment demand while the number of cross-boundary workers will be similar to the RS, resulting in a higher resident population.

Table 3 summarises the major assumptions adopted under this scenario.

On housing, a total of about 205,000 additional units (or 22%) will be required. The requirement for employment land will also increase by 5.7 million square metres in GFA (or 52%).

Cross-boundary traffic flows will increase because of the intensified level of economic activities between Hong Kong and the Mainland.

Table 3 Key Assumptions Adopted Under the HPGS

	Population		Daytime Population		Working Population		Employment	
	RS	HPGS	RS	HPGS	RS	HPGS	RS	HPGS
Base Year	6.8	6.8	6.8	6.8	3.2	3.2	3.0	3.0
2010	7.2	7.2	7.2	7.2	3.6	3.6	3.5	3.5
2020	7.8	8.0	7.8	8.0	3.8	3.9	3.7	3.9
2030	8.4	8.8	8.4	8.9	3.9	4.3	4.0	4.4

Response Mechanism

The response mechanism provides guidance on how to adjust the development framework and amend the implementation programme in response to unexpected circumstances as we move ahead, i.e. emergence of the “What If” Scenarios. It defines key parameters and milestones that would trigger the need to consider the alternative plans, i.e. the Response Plans.

We recommend that key working assumptions, e.g. population growth, housing requirement and economic conditions, should be monitored perhaps every two to three years. If the actual trend should incline towards the LPGS or HP GS, consideration would be given to triggering the appropriate Response Plans.



For the LPGS, with a slower population growth, we will need to, depending on the timing of the trigger point, slow down the implementation process or abort the proposed NDA schemes, where circumstances allow.

It is expected that, under the LPGS, implications on various aspects would be less significant compared with the RS. However, we have to be mindful of the financial implications of the LPGS arising from the over-provision of housing and economic land. On the increase in cross-boundary flows, findings of the sensitivity test indicate that the existing and planned cross-boundary infrastructure will be sufficient to handle the additional trips generated from the increase in cross-boundary workers, which have been assumed to be made mostly by rail. While our cross-boundary rail network has the capacity to cope with a large number of daily cross-boundary commuters, under this scenario, we would probably need to continue to manage cross-boundary private-car usage.

For the HPGS, we would expect that with a higher population growth, additional NDAs in the New Territories, including Kam Tin/ Au Tau and San Tin/ Ngau Tam Mei, with no prejudice on their priority, would need to be considered for implementation. In case that the land proposed for these NDAs has already been taken up by the private sector for low-density developments some time in the future, we would have to conduct another search exercise to identify further NDA opportunities. As for employment uses, further office and business nodes will have to be identified. For special industries, expansion of the Ping Che/ Ta Kwu Ling NDA may need to be considered.

Broad-brush assessments were also conducted to examine the environmental and traffic performances of the HPGS vis-à-vis the RS. In terms of environmental quality, since the difference between the population assumptions of the RS and the HPGS is not significant, the impacts on water quality, noise and waste presented above for the RS will be generally applicable to the HPGS. However, the assessment shows a slightly worsened situation in air quality under the HPGS compared with the RS as a result of higher economic growth, expansion of road networks and more marine traffic over both the medium and long terms.

As for traffic impact, under the HPGS, the average travelling speed at the morning peak hour will be lower compared to the RS and the average travelling time will be longer.

Cross-boundary vehicle and passenger trips under the HPGS will also experience a considerable increase. Although the travel demand pattern would be similar to the RS, the extra passenger trips are expected to exert high pressure on the existing and planned cross-boundary infrastructure. As vehicular congestion at Lok Ma Chau and the SWC will be expected in the longer term under a high growth situation, the need for additional cross-boundary infrastructure will become more imminent.

The establishment of "What If" Scenarios and results of the assessments illustrate that an effective response mechanism may allow us to slide smoothly into alternative strategies corresponding to growth trends which we do not anticipate at this stage. The alternative strategy under the LPGS should not cause major impact on the infrastructure and the environment, although we would have to reassess the need for additional transport infrastructure under the HPGS and to devise further measures in addressing air quality issues. However, we should also be aware of the complexity of circumstances and the fact that the future will unlikely unfold precisely as we anticipate at this moment. The importance of regular reviews and monitoring cannot be further emphasised.

Outstanding Issues

Outstanding Issues and Conclusion

The completion of the HK2030 Study only marks the first milestone of an extended planning process. The recommended planning strategy provides broad directions and concepts, which need to be followed up by further topical studies and eventually translated into relevant district plans, planning guidelines and development programmes as appropriate. Further feasibility studies and environmental assessments are required to look into the suitability, feasibility, environmental impact and mitigation measures for the developments in detail at a later stage. While some of the recommended measures under the strategy are already being looked after, we need to ensure that the rest of the recommendations will be progressively taken up through close coordination and tight monitoring.

As an immediate task, we recommend that Government should embark on a planning and engineering review study on the proposed Three-in-One NDA Scheme to formulate development proposals to cater for the latest planning circumstances, community aspirations and development needs and to carry out relevant engineering investigations. A similar study for the Hung Shui Kiu NDA will also need to be carried out at a later stage.

Other major planning studies, such as the ones on the Greater PRD Study and the Liantang/Heung Yuen Wai Control Point, are already in full steam. The study on the use of land which formerly falls within the Closed Area, together with a strategic environmental assessment, has commenced. We are also monitoring progress of relevant studies on the port and airport developments.

As regards topical studies, we would recommend that more local-area schemes, both in the urban and rural areas, be identified. Improvements to the physical environment could help revive the local economy, bring in businesses and jobs, and nurture growth of innovative and creative industries. Besides, we have also advocated the importance of a "cellular" or "bottom-up" approach in fostering a sense of place and sense of identity among the community.

A Planning Framework as the Connector

The HK2030 Study, transcended from past territorial planning studies, adopted an approach different from the previous studies. It forms an important part of Government's collaborative effort to achieve our vision as Asia's world city. Towards this vision, the HK2030 Study aims to provide a spatial planning framework to guide development and the provision of major infrastructure in

and Conclusion

the next 20 to 30 years. Realisation of our vision, however, relies also on strategies formulated under other policy areas. They must be consistent with each other and the HK2030 Study provides a spatial framework integrating all relevant elements.

A New Approach in Planning

The HK2030 Study is a process of public engagement providing the context (especially a long and wide perspective) to facilitate informed, and therefore meaningful, public debates on many of the important issues that would affect future development of Hong Kong. The output is not merely the plan, but a renewed way of thinking and attitude towards development – a paradigm shift in planning – which calls for a more far-sighted approach.

Our strategy highlights the preference for optimising available development opportunities and being prudent on opening up greenfield land for development. The theme is to leverage on the existing urban infrastructure, concentrate on the re-use and re-cycling of the old urban fabric and ***to do more with less.***



We hope to re-shape the conventional wisdom of having a “grandiose plan” to an emphasis on “sustainable growth”. This is in line with the world trend towards sustainable development, a concept we heartily embrace. Above all, Hong Kong has a role to help our country in her quest to match up with the world development and in setting an example to other cities in the Mainland. Therefore, we must demonstrate that we have the determination, and the plan, to become an example of a highly sustainable city.

Continuous Monitoring

We do recognise that circumstances will change over time, and so will community needs and aspirations. The HK2030 Study, as noted earlier, is not meant to set out a detailed blueprint for Hong Kong's future development, but to provide a robust strategy that can cater for changes. Other than monitoring macro trends, we must also maintain regular dialogues with the public on major planning issues to ensure that this will be a living strategy, constantly being enriched by the intellect and enthusiasm of our people.



HONG KONG 2030

planning vision and strategy

Executive Summary

Annexes

Annexes

HONG KONG 2030

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Annex I – List of “No-Go” Areas⁵

(A) Ecological and Other Natural Resources	
<i>(i) Ramsar Site</i>	
<ul style="list-style-type: none"> • Include 1,500 hectares of mudflats, fish ponds, marshes and dwarf mangroves at the Mai Po Marshes and Inner Deep Bay area • Listed as “Wetland of International Importance” under the Ramsar Convention • Allow no development unless it is required to support the conservation of the wetland ecosystem in the area 	
<i>(ii) Wetland Conservation Area (WCA) and Wetland Buffer Area (WBA)</i>	
<ul style="list-style-type: none"> • Associated with the Mai Po Marshes and Inner Deep Bay • Require planning permission for development within the WCA and WBA areas to avoid irreversible damage to the habitats 	
<i>(iii) Restricted Areas</i>	
<ul style="list-style-type: none"> • Include the important wildlife habitats at Mai Po Marshes and Inner Deep Bay, Yim Tso Ha Egretty, and the sandy beach at Sham Wan, Lamma Island • Designated under the Wild Animals Protection Ordinance • Access to these areas is restricted 	
<i>(iv) Sites of Special Scientific Interest (SSSIs)</i>	
<ul style="list-style-type: none"> • Include land-based or marine sites for the protection of biological, geographical, geological or physiographic interests • Allow no development except some amendable uses such as agricultural use, amenity area and field study centre etc. which require planning permission 	
<i>(v) Sites Zoned “Coastal Protection Area” and “Conservation Area” on Outline Zoning Plans</i>	
<ul style="list-style-type: none"> • The “Coastal Protection Area” zone is intended to conserve, protect and retain the natural coastlines and the sensitive coastal natural environment, including attractive geological features, physical landform or area of high landscape, scenic or ecological value, with a minimum of built development. May also cover areas which serve as natural protection areas sheltering nearby developments against the effects of coastal erosion • The “Conservation Area” zone is intended to protect and retain the existing natural landscape, ecological or topographical features of the area for conservation, educational and research purposes and to separate sensitive natural environment such as Site of Special Scientific Interest or Country Park from the adverse effects of development • General presumption against development in these zones – in general, only developments needed to support the conservation of the existing natural landscape or scenic quality of the area or are essential infrastructure projects with overriding public interest may be permitted 	
<i>(vi) Country Parks and Special Areas</i>	
<ul style="list-style-type: none"> • Cover a total area of around 41,600 hectares comprising 23 Country Parks and 17 Special Areas • Amount to 38% of the total area of Hong Kong • Designated under the Country Parks Ordinance for the purposes of nature conservation and protection of important biological or archaeological features • Allow no development without the consent of the Country and Marine Parks Authority 	
<i>(vii) Marine Parks and Marine Reserves</i>	
<ul style="list-style-type: none"> • Cover a total area of around 2,430 hectares comprising four Marine Parks and one Marine Reserve • Designated under the Marine Parks Ordinance for the purposes of nature conservation and marine recreation • Control the activities and development in the designated areas • Allow no development without the consent of the Country and Marine Parks Authority 	

⁵ A “no-go” area is defined as an area which will not be considered as a source of supply in meeting the land requirement of various strategic uses under the HFC2030 Study.

Annex I – List of “No-Go” Areas (Cont’d)

<i>(viii) Victoria Harbour</i>
<ul style="list-style-type: none"> Concern on the loss of water area as a valuable natural assets and impacts on the hydraulic and water quality Preserved as a special public asset and a natural heritage under the Protection of Harbour Ordinance and the Vision Statement promulgated by the Town Planning Board According to the judgement handed down by the Court of Final Appeal on 9 January 2004 on the Town Planning Board's appeal against the High Court's ruling in respect of the Wan Chai North Outline Zoning Plan, the presumption against reclamation can only be rebutted by establishing an overriding public need for reclamation
<i>(ix) Other Unprotected or Unidentified Resources</i>
<ul style="list-style-type: none"> The Environmental Impact Assessment Ordinance provides the protection to areas with ecological value yet to be identified if they are affected by development projects or land use plans
(B) Heritage
<i>(i) Declared Monuments</i>
<ul style="list-style-type: none"> Disallow demolition, defacement and disturbance to the declared monuments designated under the Antiquities and Monuments Ordinance without the permission from the Antiquities Authority Allow adaptive use which will not cause detriment to their conditions and protected values
<i>(ii) Other Archaeological Sites</i>
<ul style="list-style-type: none"> Include ancient architecture, kilns, hearths, rock carvings, farm lands, refuse mounds and footprints of ancient human beings Some receive statutory protection under the Antiquities and Monuments Ordinance Protect remaining archaeological sites by means of administrative action through prior consultation with the Antiquities and Monuments Office (AMO)
<i>(iii) Other Historical and Cultural Sites</i>
<ul style="list-style-type: none"> Assign grading of I, II or III to the sites according to their relative historical interests Protect the sites by means of administrative actions through prior consultation with the AMO
<i>(iv) Recognised Indigenous Villages, Fung Shui Areas and Traditional Burial Grounds</i>
<ul style="list-style-type: none"> Preserved against large-scale or high-density development in respect of the customary rights and interests of the indigenous inhabitants
(C) Water Supplies
<ul style="list-style-type: none"> Protect Gathering Grounds (including direct and indirect) and reservoirs to ensure availability of local source of fresh water Only accept environmentally sustainable developments within the Gathering Grounds that will not cause pollution to the water resources
(D) Safety
<i>(i) Geotechnical</i>
<ul style="list-style-type: none"> Include geotechnical constraints such as geological faults, terrain/slope stability and seabed conditions Need to control landslide risk to the community
<i>(ii) Potentially Hazardous Installations (PHI)^a</i>
<ul style="list-style-type: none"> Include installation which stores hazardous materials in quantities exceeding a specified threshold Siting of the installations and land uses in the vicinity are controlled
(E) Military Sites
<ul style="list-style-type: none"> All sites listed in Schedule 1 of the Military Installations Closed Area Order (Cap. 245B)

^a For each PHI, a Consultation Zone is delineated and development controls are implemented as stipulated in Chapter 12 of the Hong Kong Planning Standards and Guidelines.

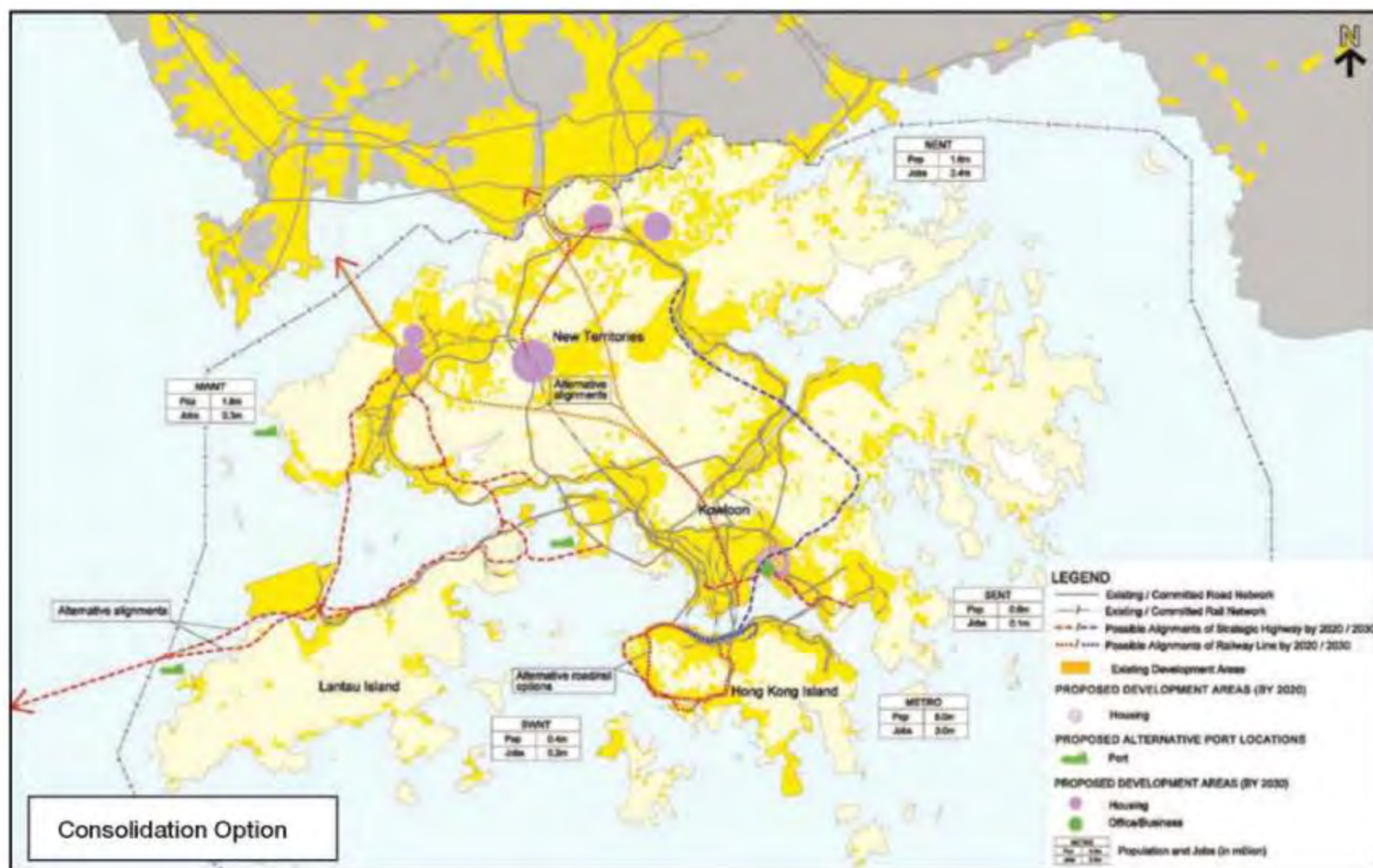
Annex II – Broad Assessments of Available Choices for Different Land Uses

Housing
(A) Optimisation of Existing Development Areas
<i>(i) Redevelopment</i>
<ul style="list-style-type: none"> • Market-led, low cost to government and involve the least intervention • Opportunities reduced as tenement blocks deplete • Marginal gain in floor area affects viability, and therefore incentive for redevelopment • Usually small-scale – less opportunity for comprehensive replanning
<i>(ii) Relaxation of Plot Ratio</i>
<ul style="list-style-type: none"> • Enhance viability of projects • Reduce need to deploy new land for development • Depend on infrastructure capacity and adequacy of community facilities
<i>(iii) Rezoning and Infilling</i>
<ul style="list-style-type: none"> • Reduce need to deploy new land for development • Primarily involve Industrial zones as a result of economic restructuring, as well as sites of obsolete Government, Institution or Community facilities • Depend on infrastructure capacity and, where applicable, resolution of residential/Industrial interface problem • Market-driven process preferred over Government-initiated resumption
(B) Identifying New Supply
<i>(i) Kai Tak</i>
<ul style="list-style-type: none"> • Kai Tak Review recently completed • Assume a medium density for residential developments given its harbour-front location • Also include a mixture of other land uses, including cruise terminal and multipurpose sports stadium • Further detailed environmental and engineering feasibility studies needed
<i>(ii) Northern New Territories</i>
<ul style="list-style-type: none"> • A number of New Development Areas have been identified in previous studies • Allow comprehensive/cohesive planning • Involve extensive land resumption and engineering works – long development lead time • Further detailed environmental assessments and studies needed
<i>(iii) Other Parts of Rural New Territories</i>
<ul style="list-style-type: none"> • Difficult to identify large pieces of flat land for development without extensive engineering works • May conflict with areas of significant ecological and landscape values
<i>(iv) Reclamation</i>
<ul style="list-style-type: none"> • Government committed that there would be no new reclamation planned in Victoria Harbour • Reclamation outside central harbour should also be avoided as far as possible but could be considered given sufficient justifications

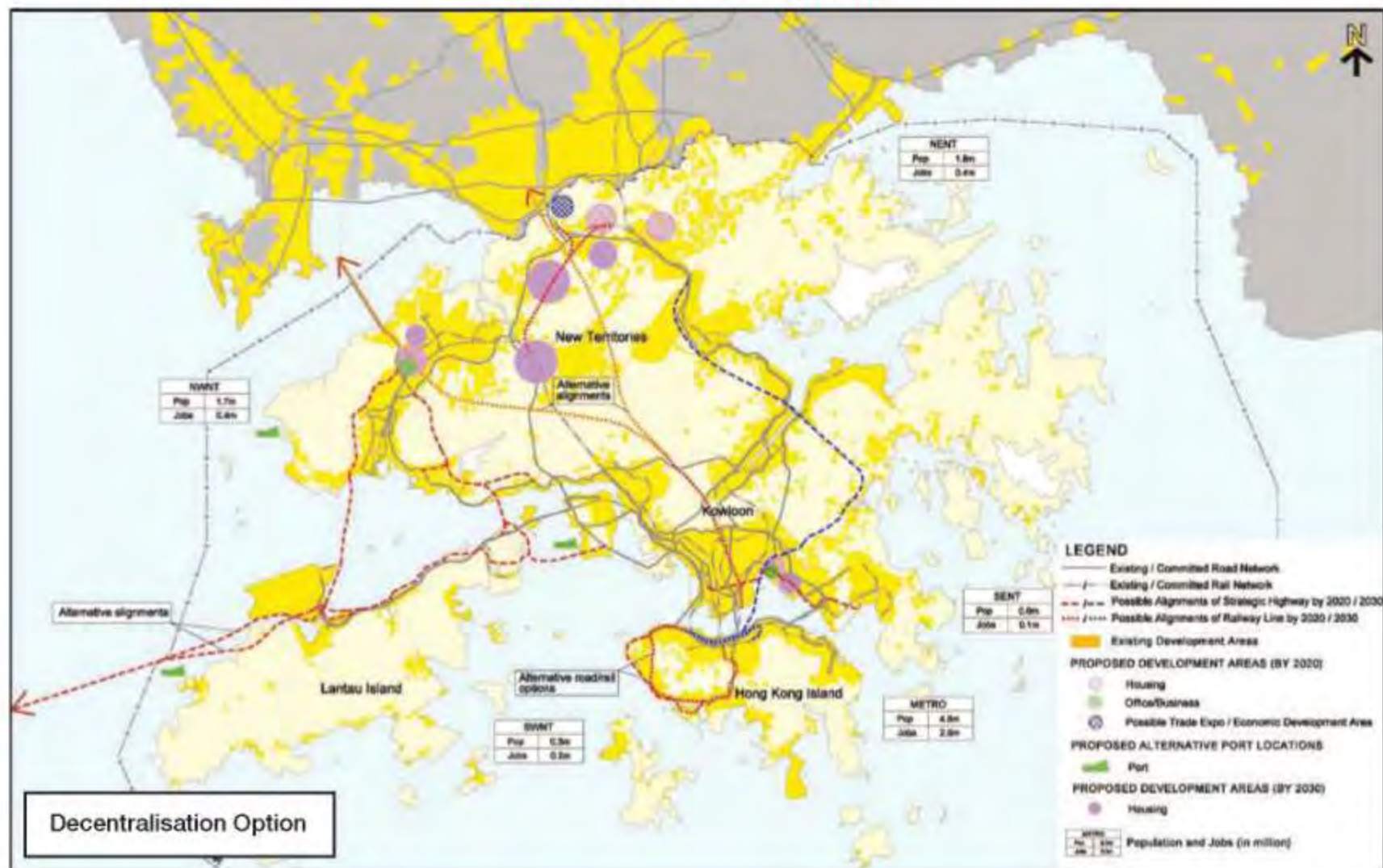
Annex II – Broad Assessments of Available Choices for Different Land Uses (Cont'd)

Central Business District (CBD) Grade A Offices
(A) Consolidation of existing Central Business District
<ul style="list-style-type: none"> • Achieve agglomeration economies which are essential for office uses located in the CBD • Take the form of in-fill developments, including the remaining portions of existing reclamation (e.g. West Kowloon) and vacated Government uses • Need to resolve issues such as urban design, traffic impacts and re-provisioning of existing uses
(B) Promoting Decentralisation
<ul style="list-style-type: none"> • May not be able to totally replace the functions of the existing CBD • Need to achieve a critical mass and provide territorial transport network in order to create a new office node • Opportunity includes the former Kai Tak Airport where a new office node is planned
General Business
(A) Redevelopment
<ul style="list-style-type: none"> • Primarily supply through the unrealised development potential arising from the redevelopment of existing industrial areas • A lesser scale of decentralisation of employment opportunities, but jobs are still not brought close enough to places of residence in the New Territories
(B) New Business Zones in NDAs
<ul style="list-style-type: none"> • Difficult to encourage businesses to decentralise to the New Territories • Difficult to assemble a critical mass
(C) The Closed Area
<ul style="list-style-type: none"> • Need to resolve a number of development constraints, e.g. hilly terrain, lack of infrastructure, sites of ecological and conservation values, traditional villages and burial grounds, contaminated mud • Strategic environmental study needed to examine environmental constraints and identify areas where development should be avoided • Three locations, i.e. Lok Ma Chau Loop, Kong Nga Po and Heung Yuen Wai, have been initially identified as having potential for special uses that warrant a boundary location

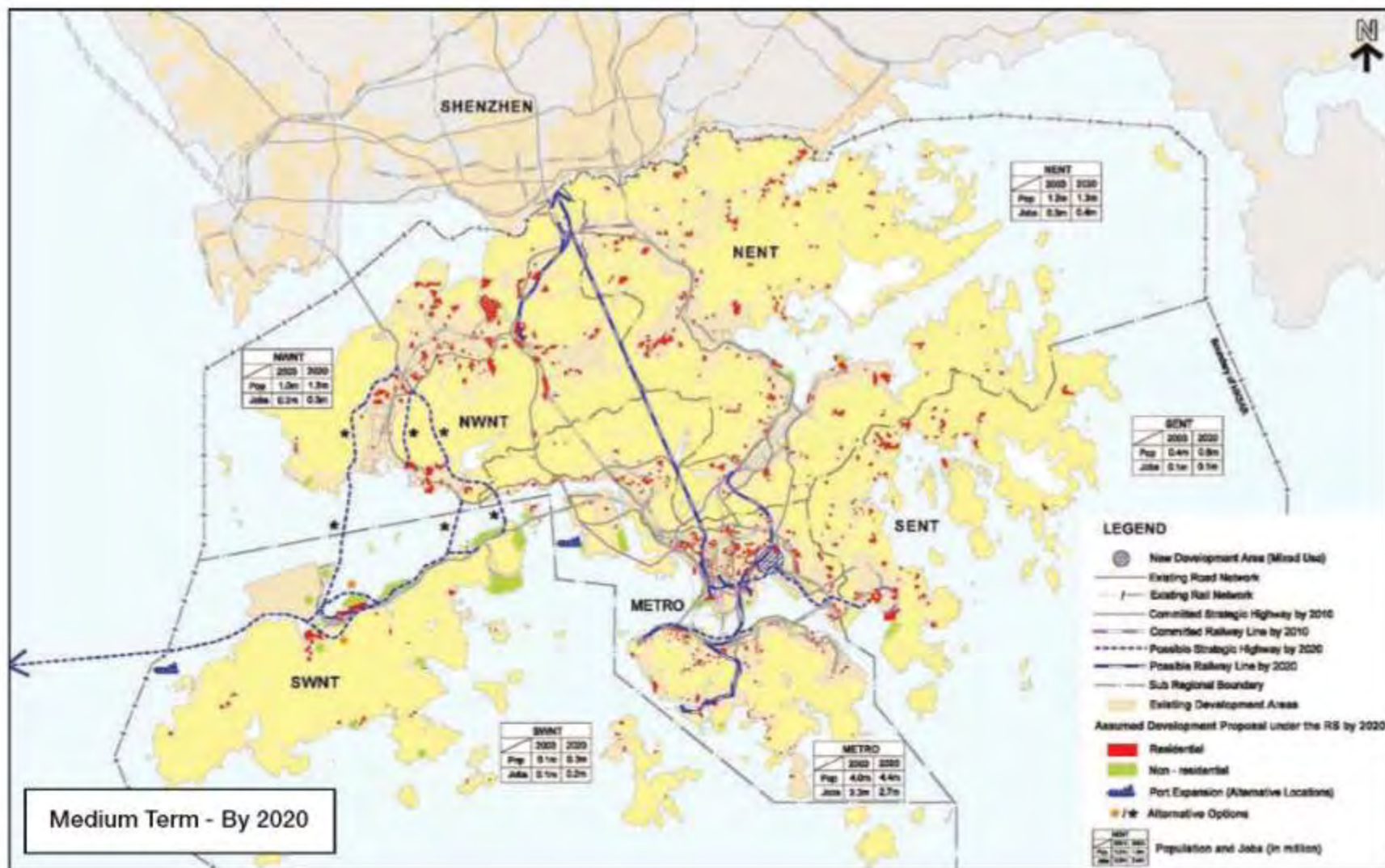
Annex III — Development Options for Stage 3 Public Consultation (Consolidation Option)



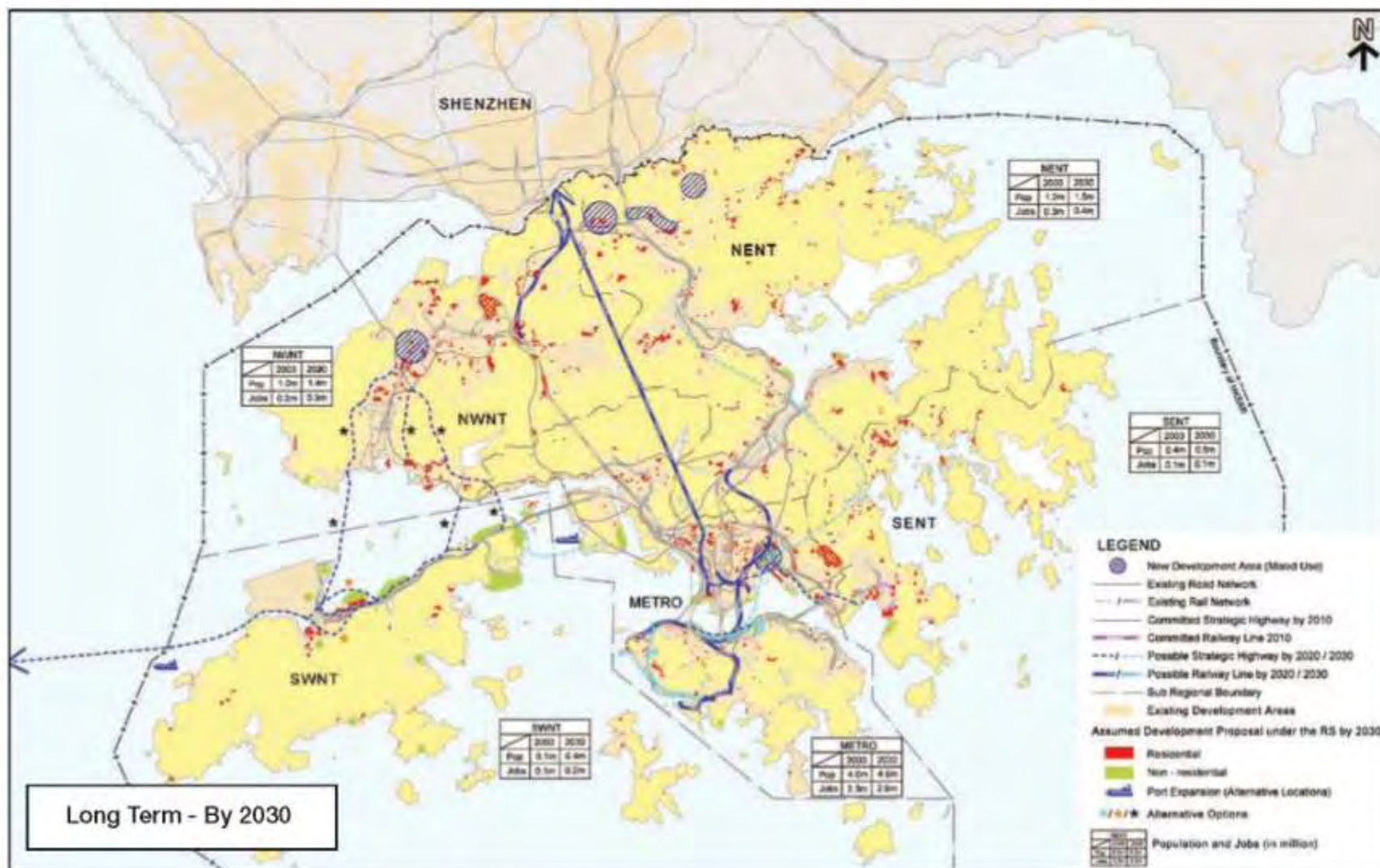
Annex III (Cont'd) — Development Options for Stage 3 Public Consultation (Decentralisation Option)



Annex IV — Preferred Development Option (Medium Term - By 2020)



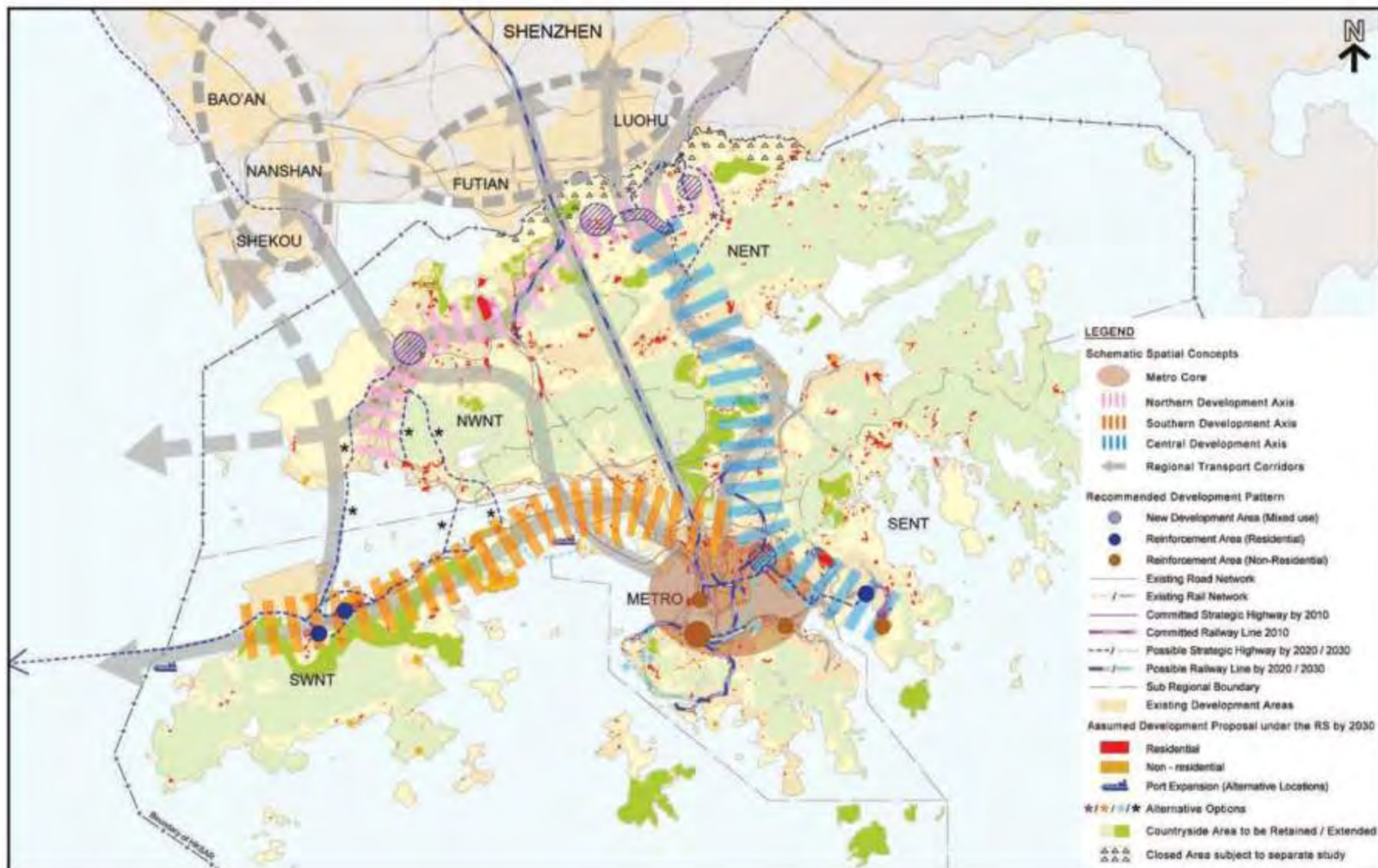
Annex IV (Cont'd) — Preferred Development Option (Long Term - By 2030)



Annex V – Evaluation Framework

Evaluation Criteria	Preferred State
Environmental	
<i>(a) To enhance environmental quality and conserve natural and heritage resources</i>	
• Air pollutant emissions	Lower
• Exposure to roadside air pollution	Lower
• Noise exposure	Lower
• Exposure to potentially hazardous installations (PHIs)	Lower
• Impacts on the quality of fresh and marine waters	Lower
• Impacts on areas with ecological values	Lower
• Impacts on areas with heritage values	Lower
• Impacts on areas with landscape values	Lower
• Use of greenfield sites and reclaimed land	Lower
• Production of construction and demolition materials	Lower
Economic/Financial	
<i>(b) To enhance Hong Kong's potential for economic growth and ensure efficient use of resources</i>	
• Gross domestic product	Higher
• Diversity in economic activities	Higher
• Benefit-to-cost	Higher
• Provision of land for economic activities	Higher
Land Use Planning	
<i>(c) To ensure an optimised land use pattern which can meet various land requirements</i>	
• Provision of land to meet housing and various development needs	Balanced
• Provision of infrastructure facilities to meet various development needs	Balanced
• Distribution of employment and housing land	Balanced
• Segregation of incompatible land uses	Higher
• Socio-economic linkage with the Mainland	Higher
Social	
<i>(d) To ensure access to major facilities and to foster community bonds</i>	
• Population density	Optimised
• Employment opportunities	Higher
• Mix of land uses at the community level	Higher
• Provision of employment opportunities close to home	Higher
• Number of persons affected by urban renewal and clearance	Lower
Transport	
<i>(e) To ensure a safe, reliable, efficient, economically viable and environmentally friendly transport system to enhance mobility within Hong Kong and across the boundary</i>	
• Travel distance and time	Lower
• Requirement for new transport infrastructure	Lower
• Usage of public transport services	Higher
• Reliance on walking and cycling for short distance travel	Higher

Annex VI – Recommended Development Pattern



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Section I The Planning Process

Chapter 1: Time for Review



Time for Review

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*“They say that time changes things,
but you actually have to change them yourself.”*

— *Andy Warhol*

1.1 Introduction

- 1.1.1 The Hong Kong 2030: Planning Vision and Strategy, or “HK2030 Study” in short, is tasked to update the Territorial Development Strategy for Hong Kong, which is defined as:

“a long-term planning strategy to guide future development and provision of strategic infrastructure, and to help implement government policy targets in a spatial form”.

It recommends, on the basis of a series of assumptions, how our spatial environment should respond to various social, economic and environmental needs in the next 20 to 30 years, taking Hong Kong towards a shared vision.

Another Paradigm Shift

- 1.1.2 A small territory though it is, Hong Kong experienced rapid development evolving from a small fishing village to a metropolitan city. It has sustained through several rounds of economic transformation and developed into one of the most vibrant and dynamic cities in the world.

- 1.1.3 Hong Kong's success is a result of many factors, and perhaps with a dash of luck as well. It occupies a strategic location at the heart of East/Southeast Asia, assuming the role as a regional transportation hub and the southern gateway to



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China. Most parts of East Asia can be reached within five hours of flight time from Hong Kong and about 40 Mainland cities are linked to Hong Kong by air services. It has world-class transportation and telecommunications infrastructure, including a deep-water port which is one of the busiest and most efficient in the world. It has the most open economy, a stable monetary system, a low and simple tax regime, advance legal and accounting systems and an efficient public service. Its people are industrious and stable. All these have contributed to the success of Hong Kong as an international business and financial centre, a major trade hub as well as an important transportation node in Asia.

- 1.1.4 However, one might question whether these strengths can help us maintain our position in the next decades in the light of mounting global and regional competition. Rising community aspirations for a better quality of life, too, make it necessary to adjust our goals and priorities. More importantly, gone are the days when the success of a city is measured by its economic performance. Today, the quest for sustainable development commands a more vigilant attitude towards growth and development. Are we indeed on track towards sustainable development? Do we have the capacity, and the will, to advance in this direction?

Preparing for the Future, Shaping the Future

- 1.1.5 The biggest challenge for long-term planning is projecting a future which is full of uncertainties. Thirty years ago when Hong Kong was frequently branded as one of “Asia’s four little dragons” with double-digit growth rates for its manufactured exports, few might have predicted that one day it would be so much de-industrialised and transformed almost fully into a services economy. Even fewer could have guessed that China would be the China of today, with Hong Kong ardently returning to her embrace. However, we are at least certain that further changes are forthcoming. To prepare for the changes, we have to plan ahead,



but uncertainty, particularly in relation to many external factors we cannot control, dictates that the key to a good long-term strategy is to maintain flexibility.

- 1.1.6 Nevertheless, a good strategy is not only about passively responding to changing circumstances. Sure enough, we are in a position to actively shape our future. The HK2030 Study will aim to contrive a strategy that is driven by a vision – a vision that makes Hong Kong a better place in which to live and work, under the over-arching goal for sustainable development – a city that could rightfully assume the title of “Asia’s world city”.

1.2 The Territorial Development Strategy

- 1.2.1 Strategic planning in Hong Kong has come a long way since the preparation of the Abercrombie Report in post-war 1948, responding to the needs of rebuilding Hong Kong and to the massive influxes of migrants from the Mainland at that time. Apart from this, past reports include:
- Colony Outline Plan 1970
 - Hong Kong Outline Plan 1979
 - Territorial Development Strategy (TDS) 1984
 - Revisions of Territorial Development Strategy 1986/1988
 - Territorial Development Strategy Review 1996
- 1.2.2 The earlier plans tended to provide only broad-brush planning directions and did not contain quantifiable substantiation for the recommendations. Major recommendations include the introduction of the zonal concept, target population densities, the provision of a comprehensive transport network (including a cross-harbour tunnel), and the development of satellite towns in the New Territories.
- 1.2.3 The formulation of TDS thus presented a significant breakthrough. It followed a systematic approach of setting out the objectives and issues; identifying constraints; generating options; evaluating the options to derive a preferred option; and translating the preferred option into definitive plans and programmes. Sophistication was especially introduced into the option evaluation and impact

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Time for Review

assessment processes, i.e. a computer-based “land use-transport optimisation model” (LUTO) was developed to facilitate the formulation of the development options, in recognition of the strong relationship between land use and transport infrastructure construction/utilisation, and the need to reconcile the two components. The options were subsequently evaluated against a set of criteria to generate the preferred option. However, environmental factors, while taken in consideration in the TDS study, formed only a small part of the evaluation criteria and were only involved in the final phase of the strategy formulation process.

- 1.2.4 Two rounds of minor revisions to the TDS were made respectively in 1986 and 1988, mainly to take on board recommendations of another two important strategic plans, viz. the Port and Airport Development Strategy and the Metroplan.
- 1.2.5 The last comprehensive review of the TDS was completed in 1996 and released to the public in February 1998. Under this review, there was a much stronger emphasis on the environmental attributes, so much so that the “land use-transport” duo became the “land use-transport-environment” trio. While its predecessors took into account a number of environmental factors, the TDS Review was the first strategic land use planning study in Hong Kong in which the environmental baseline conditions were fully assessed and a separate Planning and Environmental Assessment was carried out.
- 1.2.6 Another major achievement of the TDS Review was the introduction of the sustainable development concept, which has subsequently led to a major study under the title “Sustainable Development for the 21st Century” (SUSDEV21) conducted at the turn of the century. The study aimed to redefine the concept to suit Hong Kong’s circumstances and develop proposals for a user-friendly system that could provide a basis by which policies, resource allocation, planning, programming and works implementation could be developed, applied and monitored in a co-ordinated and sustainable manner.
- 1.2.7 Despite the big step forward, there is still room for improvement. From the last review of the TDS, lessons can be learnt especially in revising the approach for the HK2030 Study:

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- (a) One of the main complexities encountered in the last review was the disagreement on the population assumptions. We therefore need to study more on the fundamental factors of growth as well as causes to changes in characteristics in order to ensure that our population assumptions would be as plausible and persuasive as possible.
- (b) The working assumptions adopted in the last review were essentially derived on the basis of past trends. Hence, the recommended strategies and development programmes were basically driven by demand. Such an approach was considered shortsighted and insensitive to the external environment, global/regional development trends and community aspirations. A visionary approach is called for.
- (c) The time-frame of 20 years in the last review was considered too short with regard to the long lead time required to plan and implement major planning proposals, especially when the study process itself already took up several years. A longer time-frame is therefore required. However, as the level of certainty diminishes with time, we need to ensure that the lengthening of time-frame does not give the impression that we are in any better position to “foretell” the future.
- (d) In the past strategic planning studies, we had been quite confident about the assumption that Hong Kong would maintain its rapid pace of population expansion and economic growth, which would necessitate a continuous quest for developable land. However, more recent trends do not present such a clear-cut pattern. In view of the uncertainties over the long-term and to provide the necessary flexibility, there is a need to formulate a robust strategy that responds well to a wider range of possibilities, and to devise an escape mechanism that allows making deviations to the strategy in case of unexpected changes.
- (e) Although three rounds of extensive consultation were undertaken for the last review, it appears that the public was still not too satisfied with the approach. We need to review and refine the

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study method to allow a higher level of engagement with the community in the study process.

1.3 New Circumstances Leading to a New Vision

- 1.3.1 Hong Kong's reunification with our motherland in 1997 did not only signify a historic moment for a new era, but also brought about momentous changes to the economic and social structure of Hong Kong. These factors have strategic implications for the long-term development of the Special Administrative Region.
- 1.3.2 The turn of the century denotes a turnaround in the population growth trends. For decades, Hong Kong's population has been growing at a tremendous speed, averaging an addition of about a million every ten years. Latest forecasts indicate that we may achieve only about half that rate in the coming 30 years. The slowing down in population growth has relieved pressure for housing, and the need to identify new strategic growth areas. It allows room for us to focus more on the quality of our living environment. Nevertheless, the ageing of the population could pose new challenges in the years ahead.
- 
- 1.3.3 Economically, Asia experienced the financial crisis of the late 1990s which revealed Hong Kong's economic strength and robust resilience. Amidst the financial crisis, the Hong Kong economy experienced a thorough adjustment with the Gross Domestic Product falling by 4.9% and unemployment rate surged from a low of 2.2% to 4.7%. Fortunately, Hong Kong has quickly recovered from the crisis, thanks to a rising economic power behind us.
- 1.3.4 With China's accession to the World Trade Organisation, her economy is gradually transforming into a more liberalised and accountable regime. Alongside, Hong Kong will be able to benefit from reduced transaction cost and expanded trade potentials. It is expected that greater business opportunities will be available for particularly the distributive trades, banking, finance, telecommunications and tourism

sectors. On the other hand, more intense competition in the Mainland market is also envisaged. The continuing structural changes in our economy are not occurring only in the manufacturing sector, but low-order services activities are beginning to relocate across the boundary as well. To turn challenges into opportunities, Hong Kong needs to re-position itself to sustain and expand its gateway and hub function for China.

- 1.3.5 The relaxation of the tourist policy in the Mainland has significantly increased the number of Mainland tourists visiting Hong Kong in the last few years. It has resulted in speeding up the economic recovery of Hong Kong. Furthermore, the implementation of Closer Economic Partnership Agreement will further enhance our economic relationship with the Mainland.
- 1.3.6 The socio-economic linkages between Hong Kong and the Mainland have contributed to the dramatic growth of cross-boundary movements of goods and people. These interactions have raised a surge in both passenger and vehicle trips. The rapid growth in cross-boundary movements has placed tremendous pressure on our infrastructure and warrants a re-visit of the various scenarios developed in the previous TDS.
- 1.3.7 Our national policies, including China's 11th Five-Year Plan ratified by the National People's Congress in March 2006, also brought in new dimension to our outlook about Hong Kong's future role and how we should re-position ourselves in light of the many changes occurring in the Mainland.
- 1.3.8 On another front, recommendations of the SUSDEV21 Study led to the formation of the Council for Sustainable Development in 2003 which is tasked to promote sustainability in Hong Kong, in particular through extensive public engagement processes and debates about the shape of our future as well as priorities. The Council's first engagement process culminated in the promulgation of the First Sustainable Development Strategy for Hong Kong by the Government in May 2005, which encompasses, among other things, the important issue of "Urban Living Space".

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Time for Review

- 1.3.9 Another major event in 2003 was our battle against Severe Acute Respiratory Syndrome (SARS) which has raised wide community



awareness of the importance of personal hygiene and demanded for better living environment. The outbreak of SARS at Amoy Garden in particular prompted a rethink on building design (especially regarding drainage and air ventilation) and urban design. In August 2003, the Team Clean proposed a set of measures together with an education programme to make Hong Kong a cleaner and more hygienic city, including for example, application of urban design guidelines to improve the urban environment. Many of these measures will have important implications for the urban landscape of Hong Kong.

- 1.3.10 In consideration of these new circumstances, Hong Kong needs to chart a new course towards a common vision for a better and sustainable future. The planning strategy formulated under the HK2030 Study thus aims to articulate our shared vision and set out a roadmap for that part which relates to physical planning towards achieving this vision.

1.4 A Guide to the Final Report

- 1.4.1 This Final Report of the HK2030 Study is set out in sixteen chapters in four sections. It concentrates on what matters most, i.e. the broad concepts and strategies, with details included in supporting technical reports and working papers (**Annex I**). The first section explains the planning process, the second elaborates on the planning vision and objectives, the third outlines the planning choices and the fourth sets forth the planning strategy and next steps.

Section I : The Planning Process

Chapter 1 – Time for Review

- Setting out the background and reasons for the review.

Chapter 2 – Doing it Right

- Explaining the process and approach of the study.

Section II : Planning Vision and Future Challenges

Chapter 3 – A Vision for the Future

- Describing our vision as Asia's world city – a city that is proud of its outstanding achievements for sustainable development.

Chapter 4 – The Desired Living Environment

- Featuring an overview of the attributes for a living environment which Hong Kong people aspire to.

Chapter 5 – The National Dimension

- Looking at development at the national level and the relationship between Hong Kong and the Mainland.

Chapter 6 – The Changing Economy

- Examining how Hong Kong's economic landscape has changed over time and the future challenges we face.

Chapter 7 – Population Dynamics

- Addressing the implications of the projected population growth and structural changes.

Chapter 8 – Defining Our Needs

- Setting out the working assumptions and assessing requirements for various land uses under a Reference Scenario.

Section III : Planning Choices

Chapter 9 – Deriving Planning Choices

- Describing the planning choices evolved in different stages of the Study and options for the spatial development pattern.

Chapter 10 : Evaluation Framework

- Highlighting the framework, principles and approach of assessment for the development options in terms of transport,

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Time for Review

environmental, financial and economic assessments, and presenting results of option evaluation.

Section IV : Planning Strategy and Next Steps

Chapter 11 – Preferred Development Option

- Depicting the preferred spatial development pattern, including new development areas, development densities, transport network and other major infrastructure.

Chapter 12 – Impact Assessments

- Summarising results of various impact assessments on the preferred development option and recommending suitable mitigatory measures where appropriate.

Chapter 13 – A Future Roadmap

- Setting out the strategic planning principles and measures pertaining to the three broad directions.

Chapter 14 – What If....?

- Postulating alternative scenarios with broad assessments to explore the implications of future situations which deviate from what we now expect.

Chapter 15 – Response Mechanism

- Recommending a mechanism to respond to unexpected circumstances as we move ahead.

Chapter 16 – Outstanding Issues and Conclusion

- Outlining the next steps to address outstanding issues.

Section I The Planning Process

Chapter 2: Doing It Right



Doing It Right 2

*“I know not what is to be done about those who do not say,
‘what is to be done? what is to be done?’”¹*

- Confucious

2.1 Strategic Planning is a Continuous Process

- 2.1.1 Strategic planning can be understood as preparing the best way to respond to the future, which is enormously dynamic. It usually involves setting goals and objectives, and determining a strategic framework on how to accomplish these goals. Devising a long-term planning framework to guide the future physical development for Hong Kong has long been an important task in the planning field.
- 2.1.2 Dynamism and uncertainty necessitate a high degree of flexibility in the planning process to allow constant adjustment and review so that it can respond effectively to changes. Strategic planning, by nature, is a continuous process to provide a flexible framework to achieve the established goals.

2.2 A Four-Stage Study Process

- 2.2.1 The HK2030 Study is structured as a four-stage study process. The four stages are detailed as follows:

Stage 1 Agenda Setting and Baseline Review

Tasks include:

- (a) Informal consultations with experts in various fields;
- (b) Review of the strategic plans of leading cities of the world;
- (c) Review of major strategic planning, environmental and transport studies that have been carried out, establishing and updating the baseline conditions and future land requirements for different land uses;

¹ Source of translation - <http://www.confucius.org/lunyu>.

2

Doing It Right

- (d) Review of development plans of the Mainland;
- (e) Review of government policies and identification of their strategic planning implications;
- (f) Establishment of principal working assumptions; and
- (g) Review of planning objectives and key issues.

Stage 2 Examination of Key Planning Issues and Establishment of Evaluation Framework

Key tasks include:

- (a) Identification of key strategic planning issues;
- (b) Review of the constraints, opportunities, and problems associated with these strategic planning issues;
- (c) Analysis of the implications of the strategic planning issues on the future development of Hong Kong;
- (d) Examination of sustainable use of land resources;
- (e) Study of the issues relating to the socio-economic integration with the Mainland;
- (f) Establishment of a framework for the evaluation of options.

Stage 3 Formulation of Scenarios and Options

Key tasks include:

- (a) Depiction of a vision towards sustainable development for Hong Kong;
- (b) Identification of strategic development directions;
- (c) Analysis of the key components of the development directions;
- (d) Preparation of population and other working assumptions and identification of new development opportunities;
- (e) Identification of planning choices; and
- (f) Generation of development options.

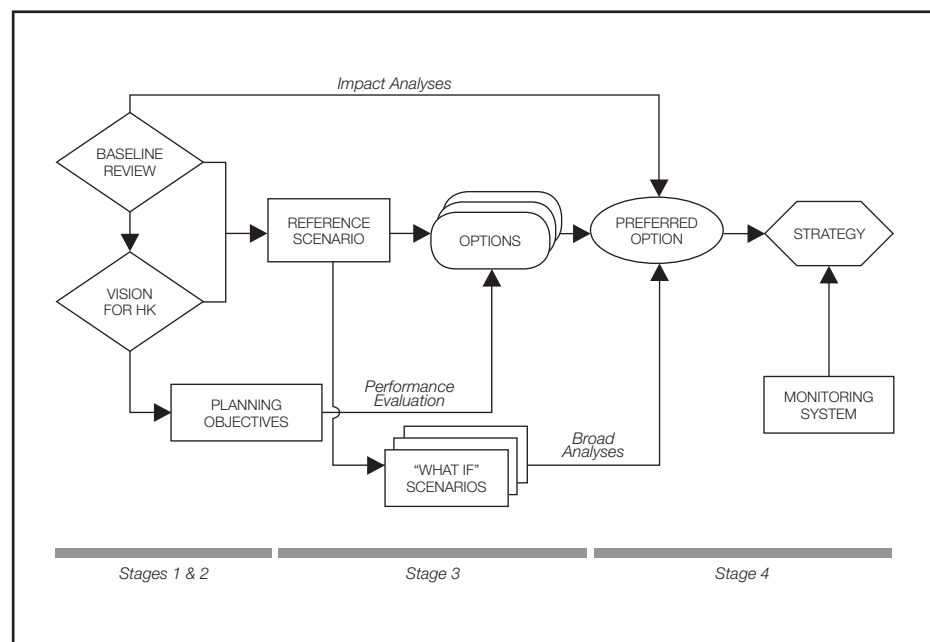
Doing It Right 2

Stage 4 Formulation of Development Strategies and Response Plans

Key tasks include:

- Selection of desirable elements to form a preferred development option;
- Assessment of the preferred option against the evaluation criteria;
- Postulation of “what-if” scenarios;
- Formulation of response plans; and
- Formulation of an overall planning strategy.

Figure 2.1 Study Flowchart



2.3 Special Features of the Study

- 2.3.1 Any robust strategic plan will need to be responsive to the circumstances. In view of the rapid changes in the recent years, the HK2030 Study has adopted a study approach which is different from the previous strategic planning studies, encompassing broader parameters and more in-depth research. Special features of the HK2030 Study include:

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Doing It Right

(a) Vision-driven Plan

The HK2030 Study has transcended over the trend-based approach in planning. Instead of passively responding to the projected needs postulated from the past trends, the HK2030 Study is an important part of the collaborative effort towards achieving the long-term vision for Hong Kong.

(b) A Wider Perspective

The HK2030 Study covers global development trends as well as those in the Mainland. In view of the rapid growth of cross-boundary interactions in recent years, the HK2030 Study acknowledges that Hong Kong is an integral part of the wider Pearl River Delta (PRD) Region. This regional perspective has put the planning for development in Hong Kong in a proper context.

(c) A Longer Planning Horizon

Having considered the time required to plan and implement strategic development and related infrastructure proposals, a longer planning horizon of 30 years have been adopted for the study.

(d) Extensive and Proactive Public Involvement

Under the HK2030 Study, public consultation exercises have been conducted throughout the entire study process at a broad scale. This ensures that the findings or recommendations at each of the stages are responsive to public expectations before proceeding to a further stage. Allowing revisions and adjustments during the process based on the public comments will help build consensus on the broad planning directions, as well as promoting ownership amongst the community.

To fully engage the community, various forms of consultation have been employed. For example, we have held consultation forums with stakeholder groups, including the 18 District Councils, and other interested individuals. We have also arranged focus

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meetings to enable more in-depth discussions on specific topics. Briefings and presentations have been made to various statutory and advisory bodies, professional institutions, secondary schools and other organisations, and roving exhibitions have been staged. An innovation was the setting up of an electronic discussion forum attached to the HK2030 Study website. To arouse interest in strategic planning among young people, we have organised planning design competitions and training courses for them to express their aspirations and proposals for the future of Hong Kong.

(e) More Responsive Strategy

In recognition of the changing circumstances and the changing societal needs, the HK2030 Study has adopted a more flexible approach. With the study process being structured in four stages, we have been able to respond more effectively to public views.

Also, various assessments in accordance with the sustainability criteria were conducted not only at the tail-end of the study, but also at the option selection stage. This had ensured that sustainable development concerns would come in at the early stage of proposal formulation so that there would be more room to improve the proposals.

Moreover, response plans were also prepared corresponding to the “what-if” scenarios setting out broad guidelines on how to adjust the development proposals in response to changes in circumstances. Broad analyses were conducted to assess the impacts of the alternative scenarios on the preferred development option. In addition, we have also proposed a mechanism to monitor the performance of the strategy proposals and to instigate changes or further reviews if necessary.

2.4 Engagement of Expert Advisors

- 2.4.1 In addition to adopting a more proactive approach in public consultation, a panel of advisors (**Annex II**) has been set up to provide

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Doing It Right

specialist advice on various issues raised in the study. This panel comprises specialists in various fields including economic, transport, environmental and Mainland affairs. Engagement of outside experts has broadened the perspectives of the study and reinforced the partnership between Government and non-governmental sectors in charting the future development of Hong Kong.

2.5 Study Challenges

- 2.5.1 An unprecedented study approach could bring about many benefits, but at the same time pose new challenges. Postulating and soliciting agreement from Hong Kong people to a vague and far from personal planning vision is never straightforward and easy. Broadening study perspectives, especially for a study of this scale, could render insufficient attention to each of these perspectives and increase the difficulty in managing such a wide range of issues at the same time. Implications of any slight socio-economic changes and technological advancement would be magnified through a longer planning horizon, which could end up impairing the reliability of the working assumptions. Despite wider public involvement, members of the local community are not quite accustomed to giving views on issues that are long-term and not of immediate concern.
- 2.5.2 While these challenges are not insurmountable, it may sometimes necessitate, in the course of study, adjustment to the purpose and priority of individual study tasks as well as provision of extra guidance in public consultation in order to obtain more responses.
- 2.5.3 The study has taken much longer time to complete than it was initially anticipated. The reasons are manifold. First, we have conducted extensive public consultations at the end of the initial three stages of the study. While a lot of useful comments have been obtained, we found that there were diverse views on several important topics, e.g. proposals for development patterns and development densities. The work on analysing and collating such diverse views has been unexpectedly time-consuming.

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- 2.5.4 Second, Government has conducted a number of major studies in parallel with the HK2030 Study, including studies on port development, new cross-boundary links and the population policy. New population forecasts have also been made during the study period. As the findings of these studies all have an important bearing on the overall development of Hong Kong, we need to adjust the progress of the HK2030 Study in order to take on board such findings in our strategy formulation.
- 2.5.5 Third, we have been committed to conduct a series of detailed impact assessments on the preferred option, including a strategic environmental assessment. However, growing community aspirations for a better environment require that more substantiation be given to demonstrate that our environment will not be ruined by our future growth. We need to, rightfully, conduct deeper investigations on the potential environmental impacts of the preferred option in a quantitative manner, for instance, by means of computer modelling. These tasks however required considerable time to accomplish.

Section II Planning Vision and Future Challenges

Chapter 3: A Vision for the Future



A Vision for the Future 3

*"Vision without action is a daydream.
Action without vision is a nightmare."*

— Japanese proverb

3.1 Charting a Vision

3.1.1 Vision is a desired state of affairs which one hopes to come about some time in the future, and planning is the act of anticipating and preparing a roadmap leading to that vision. In modern societies, anticipation is important because of perhaps two factors. First, the fast pace of technical, economic and social changes necessitates having a long-term perspective in the sense that “the faster you drive, the further your headlights must shine”. Second, we must sow the seeds of change today if we wish to harvest them tomorrow. Therefore, charting a clear vision is a necessary step that could ensure a sustainable future for Hong Kong.

3.1.2 The long-term vision for Hong Kong to strengthen its position as **Asia's world city** was 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. It says:



“Hong Kong should not only be a major Chinese city, but could become the most cosmopolitan city in Asia, enjoying a status comparable to that of New York in North America and London in Europe.”

Both New York and London are cosmopolitan cities with great depth of talent in culture, technology and education. They are vibrant economies and possess the financial strength to serve the region and

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the world at large in areas such as finance, trade, tourism, information industry and transport, while being home to numerous multi-national enterprises. Their solid economic foundation has made it possible for their people to enjoy a relatively high average income.

- 3.1.3 The Commission further articulated this vision by providing an outline of the goals and objectives that are integrated into Hong Kong's vision, the issues that influence their achievement and the steps that should be taken to drive that process. It emphasises the importance of supporting initiatives that promote sustainable development to ensure that future generations will have the resources they require to maintain both a prosperous society and also a community with a high quality of life.

- 3.1.4 While many of the steps to be taken proposed by the Commission relate to the “software” side, it is noted that the report has recommended that:

“Hong Kong cannot afford to be complacent about its strength in physical infrastructure. In particular, continuous efforts should be spent on broadening its physical links with the rest of Southern China and create closer co-ordination with Mainland authorities in a number of key areas concerning future infrastructure planning and development.”

Also, Hong Kong should “maximise the use of its limited land, through, for example, the application of innovative urban design concepts, examining the potential contribution that urban renewal can make to competitiveness and to the quality of life, and reassessing the allocation of land for industrial and commercial uses.”

These recommendations serve as important foundations for the formulation of the strategy under the HK2030 Study.

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3.2 Community Expectations

3.2.1 The Commission's vision was drawn up on the basis of the views of many stakeholders and community representatives. Moreover, under Stage 1 of HK2030 Study, we have carried out public consultation on the overall planning objectives for the study, the results of which also shed light on the wider public attitude towards this vision.



3.2.2 On the whole, there was wide support on the concepts behind the vision. Many considered that it would be essential for Hong Kong to continue to strengthen its economic position in the face of an intensifying globalisation process. On the other hand, some felt that this vision of being “Asia’s world city” has been exceedingly inclined towards economic growth, efficiency and competitiveness, and lacked consideration of social, cultural and environmental aspects. Moreover, some people considered that the vision was only a superficial and fancy label which Hong Kong did not need. They would rather see real plans, targets and programmes which could bring perceivable results.

3.2.3 Indeed, “world city” may be a term which is more often referred to in the business world, but as pointed out above, the Commission on Strategic Development has explained that behind this vision, there is a strong emphasis on sustainable development. We have also under the HK2030 Study responded to public suggestions, after the Stage 1 public consultation on Agenda Setting, by defining an overarching goal for the study:

“The HK2030 Study should adhere to the principle of sustainable development to balance social, economic and environmental needs to achieve better quality of life for present and future generations.”

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Thus, “Asia’s world city” is not only about economic growth and competitiveness, but ensuring we have a city that is proud for being Asia’s exemplary city in achieving true sustainable development.

3.3 Planning Objectives

3.3.1 Under the overarching goal of the study, we have also defined more specific planning objectives (which were refined to take on board comments received during Stage 1 public consultation). As each of these objectives is considered as important as the other, a careful balance amongst the objectives needs to be struck in making important planning decisions. The objectives are as follows:

- a. Providing a good quality living environment by:
 - ensuring our development is undertaken with due regard to the environmental carrying capacity;
 - enhancing the townscape; and
 - regenerating the old urban areas.
- b. Conserving the natural landscape which is of ecological, geological, scientific and other significance and preserving our cultural heritage.
- c. Enhancing Hong Kong’s hub functions by:
 - setting aside sufficient land reserves to meet the changing needs of commerce and industry;
 - strengthening our role as a global and regional financial and business centre;
 - strengthening our role as the international and regional trading, transportation and logistics centre; and
 - developing further as an innovation and technology centre for Southern China.



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- d. Meeting housing and community needs by ensuring timely provision of adequate land and infrastructure for the development of housing and community facilities.
- e. Providing a framework to develop a safe, efficient, economically viable and environmentally friendly transport system.
- f. Promoting arts, culture and tourism to ensure Hong Kong will continue to be a world-class destination with unique cultural experience for visitors.
- g. Strengthening links with the Mainland to cope with the rapid growth of cross-boundary interaction.

3.3.2 As these objectives are broad and encompassing, we have organised them under four major areas for further analysis on the issues, namely:

- The desired living environment
- The national dimension
- The changing economy
- Population dynamics

The ensuing chapters provide more details on the trends and issues related to these important areas.

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Chapter 4: The Desired Living Environment



The Desired Living Environment

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“The chief function of the city is to convert power into form, energy into culture, dead matter into the living symbols of art, biological reproduction into social creativity”

— *Lewis Mumford*

4.1 That Place We Call Home

- 4.1.1 Hong Kong's economic success and prosperity in the past have resulted not only in higher standards of living but a growing community desire for a better living environment, requiring that this aspect be given foremost attention in the HK2030 Study. We need to, first of all, understand what constitutes a desirable living environment – what makes Hong Kong a better place to live, and the desired living environment – what our people really want.
- 4.1.2 Gauging community aspirations is a delicate task. What one wishes for may not be what he can afford, nor may it be something that is best for the community as a whole, or the best for the Earth. Sometimes, certain voices are more prominent because they are loudest. But it is important that we as individuals of society have a choice, and that the choice is made after we have been fully informed. The HK2030 Study does not aim to prescribe an outcome, but to provide the information necessary to serve as the basis for people to make their choice.
- 4.1.3 Whilst the HK2030 Study is focused on the physical environment, our efforts are likely to have an impact on the “software” aspects related to the social, psychological and behavioral dimensions. If our vision connotes achieving “total quality of life” for Hong Kong people, a “quality living environment” could bring us closer to that vision.



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- 4.1.4 Due to the intricacy of different dimensions, a comprehensive and integrated approach is needed. The HK2030 Study must play the role of integrating social, economic and environmental considerations to facilitate meaningful deliberations and debates on a desirable and appropriate future roadmap for Hong Kong leading to a better quality environment.

4.2 SARS – A Call for Change

- 4.2.1 The Severe Acute Respiratory Syndrome incident raised a public concern on whether our development densities, especially in old urban districts, are too high and therefore create negative effects on community health. Although some may instantly attribute the spread of SARS to development densities, there can be many other factors at play, including environmental hygiene as well as human behaviour. However, physical congestion of buildings which causes stagnant air and poor natural lighting certainly does not yield a healthy living environment.
- 4.2.2 In the past, Government has spent considerable effort to promote urban and building designs. Much of this had been met with apathy or even resistance. Since the SARS epidemic in 2003, there has been increasing community pressure for a more health-conscious living environment, including concerns on the effects of development layout and building design on air circulation and pollutant dissipation.
- 4.2.3 At the same time, property owners are more willing to ensure (and therefore pay for) better building management and maintenance. Increased public awareness of the relationship between environmental quality (air, water, noise) and health has fostered acceptance to a “user responsibility” concept as well as readiness to pay for more costly infrastructure to achieve higher standards.

4.3 Attributes of a Quality Living Environment

- 4.3.1 Based on our research and public views received, we have defined some of the conditions for a quality living environment.

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A Green and Clean Environment

- 4.3.2 It is widely acknowledged that a clean and sustainable environment is essential for the health and well-being of the people, and as said, this belief has been re-affirmed by the SARS incident. However, our environment has been under great pressure due to rapid population growth and urban development in the past. Rising economic affluence has also contributed to the tremendous growth in waste generation and energy consumption.
- 4.3.3 In Hong Kong, a key area of concern is air pollution, as its effects could be highly visible and felt (i.e. through respiratory diseases). Also important are the water quality of the Victoria Harbour and other water bodies, solid waste handling/treatment and biodiversity.
- 4.3.4 On-going efforts, including the Action Blue Sky campaign and the Harbour Area Treatment Scheme for instance, have already given some positive results, but clearly more needs to be done, especially in the light of rising community aspirations, and rapid urban development in the PRD region. Our planning strategy must ensure that not only environmental standards are met in future development, but that we should respect the environment and use resources wisely in proceeding with any development, tying in with Government's overall environmental initiatives.

Good Aesthetics

- 4.3.5 The importance for a city to be beautiful may call for a debate. While a city is not meant to be a work



of artistic display for planners, architects and urban designers, neither should it be an eyesore to its residents or visitors. More importantly, urban design, the tool to enhance disposition and the visual effect of building masses on the one hand, is also meant on the other hand for

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providing connections with people and places, creation of spaces for movements and urban amenities.

4.3.6 Better design for buildings allows visual permeability, facilitates air movement and creates points of interest. Individualistic architectural design or distinctive frontage in the lower part of buildings is also important to enhance interest at the street level and rationalise immense built structures to a human scale. In addition, street beautification and landscaping initiatives such as greening, provision of street furniture, street paving etc. help improve the quality of street environment. Well-designed streetscape with incidental landmarks and street arts not only can enhance street vitality, it can also create a distinctive local character for the district and provide space for human interactions.

4.3.7 In terms of geography, two areas merit special attention: the harbourfront and the countryside. The Victoria Harbour is an important asset for Hong Kong. Continuous effort is needed to make it attractive, vibrant, accessible and symbolic for local people and tourists. Equally, the rural landscape, with its rich natural habitats,



functions as an urban lung to offer clean air, as well as visual and psychological relief to people in the compact urban areas. Irresponsible acts in the past, such as illegal dumping or improper clearance of woodlands, have tarnished much of our rural environment and positive actions are needed to restore the damage and prevent further devastation.

Efficient Movements

4.3.8 The spread of development drives growth in trip generation. People commute daily from where they live to their work places, schools and other locations of activities. There is therefore a close and intricate relationship between the use of land and the required transport network.

4.3.9 This necessitates an integrated approach for land use and transport planning for future development. To plan for more development in the

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vicinity of transport nodes can optimise the capacity of public transport, ensure efficient use of land and facilitate mobility.

- 4.3.10 In our consultations with the public, we have raised the proposition on whether we should, or could, plan for more jobs closer to where people live. The community generally welcome this idea, but tend to believe that it is not feasible if left only to the private market because most firms usually prefer to agglomerate at easily accessible locations to correspond with their mode of operation. Moreover, even if a job is provided at one's doorstep, it does not imply that he has the capacity to take up the position. The fact that people might change jobs over time and that there are many families with dual breadwinners would also make it difficult to guarantee success of implementing such a concept. Nevertheless, planning for more employment outside the core areas could help to optimise transport infrastructure (by enhancing backflows) and relieve bottlenecks (e.g. along the cross-harbour routes), and is therefore conducive to improving efficiency in traffic movements.
- 4.3.11 Currently about 90% of daily trips in Hong Kong are taken by public transport, with about 36% of the total public transport passengers handled by rail. In view of considerable environmental benefits of using rail, continuous adoption of this mode as the backbone of our passenger transport system would cut down the amount of emissions by motor vehicles and help slow down the pace of global warming and climate change. This would be advantageous to our overall strife towards sustainable development.
- 4.3.12 At the local level, encouraging mixed use developments can minimise travelling and shorten commuting trips. In this arena, Hong Kong may already be considered a champion. So far as the mixing of land uses does not lead to nuisances (e.g. in the case of industrial/residential interface which will be an apparent non-starter), it should continue to be supported. In parallel, walking, being a healthy and environmentally friendly mode, can be further promoted through



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better planning of pedestrian environments within mixed use neighbourhoods. Good pedestrian environments could also help to enlarge the catchments of rail stations and thus reduce the need for road-based transfer. The compactness of our development pattern is already conducive to the promotion of walking, but it is through the provision of comfortable, safe and interesting pedestrian environments that Hong Kong can become a truly walkable city.

- 4.3.13 Apart from enhancing our domestic transport network, improving external linkages is also important. In line with the increasing socio-economic integration of Hong Kong with the Mainland, more efficient cross-boundary transport infrastructure is needed to facilitate smooth



cross-boundary movements, creation of a “one-hour living circle” that covers most of the PRD area, and furthermore, to enhance our competitive edge in the fast growing Pan-PRD region. Connectivity with the Asia Pacific Region and the rest of the world, too, is also a vital concern.

A Sense of Space

- 4.3.14 High development density does not automatically equate to a poor living environment or overcrowdedness. This notion has been shared by quite a number of public comments and academic research¹. Our sense of space is not purely measured in terms of the largeness of a residential unit. It is a dynamic mix of psychological (e.g. need for and perception of comfort and privacy) and physical attributes (e.g. internal layout, penetration of natural light and air ventilation, the neighbourhood and the local environment).
- 4.3.15 However, one’s yearning for living space may sometimes be in conflict with his other priorities, for example travelling distances, time and costs. One may trade his living space for a shorter journey to work, while another may choose a larger living space but have to endure longer travelling distances.

¹ For example, Nuana Rooney, *At Home With Density*, HKU Press 2003.

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- 4.3.16 Many would agree to the merits of high-density developments and mixed use – reducing travelling distances, increasing viability of public transport, increasing urban vibrancy and reducing urban sprawl (although some argue that high-rise buildings are a kind of urban sprawl, upwards rather than outwards). However, planning for a high-density living environment should be undertaken in the context of a wider perspective. The conventional form of high-rise developments may no longer be always welcomed unless it is coupled with good urban design, better local environment and higher visual amenity. Planning needs to be three-dimensional to foster a good sense of space, which is about how the urban fabric is *balanced* and *harmonised*, rather than simply *tidied* and *organised*.

Diversity to Provide Choice

- 4.3.17 Planning is about choices. People may choose between living in a high-rise urban setting or low-rise rural environment, spending their evenings at Lan Kwai Fong or the Cultural Centre, taking their own cars or the Mass Transit Railway, taking a leisurely walk at the country park or the local shopping mall.

- 4.3.18 Our lifestyles have increasingly diversified in tandem with the economic success of Hong Kong, from places of accommodation, to daily routines, to transportation modes, to forms of recreation. Personal liking could also be very different. In terms of urban form, some people may consider mixed uses disorderly. On the other hand, segregation could imply monotony. No one single development mode can satisfy the needs and preference of all people. Our planning strategy should therefore aim at providing a wide selection of living choices to suit different people. A true world city should be multifarious and well appointed to offer something for everybody.



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A Sense of Place

- 4.3.19 A city is meant for its residents and must therefore be planned to be “livable”, designed to a human scale and reflect the unique character of a locality. Most of Hong Kong has grown in a semi-organic way – with its urban morphology having undergone many rounds of transformation over the original form – some of the streets originally built for cars have been turned into open markets; areas originally built for pure residential use have been converted into bustling shopping districts; rows of terrace houses have been transformed into lofty buildings etc. In a way, Hong Kong’s compactness and diversity in land use have been a result of spontaneity rather than premeditation.
- 4.3.20 Planners must therefore take on board local characteristics in recommending a suitable development form for any development area. Imposing a rigid/orthodox form or amalgamating small lots into “superblocks” upon redevelopment may not always be the best formula for Hong Kong, although they have their merits in certain respects and can meet the aspirations of some people.
- 4.3.21 Culture and heritage, too, are a part of our life. Hong Kong’s historic features demonstrate our unique historical and cultural characteristics which are more than “East meets West”. Development of arts and culture and conservation of heritage, architectural, and culturally



significant features can enhance diversity in form, enrich historical continuity, increase our cultural awareness and strengthen community bonds through recollection of shared memories of the past, and in turn nurture a sense of place and local identity. Besides, the development of cultural facilities (such as the West Kowloon

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Cultural District) and the promotion of cultural activities (including street performances) could also enhance a sense of belonging and common identity of the community, in addition to being conducive to long-term arts development in a community and enhancement of quality of life of an international metropolis.



Good Urban Infrastructure

4.3.22 Good urban infrastructure, including community facilities, open space, efficient and green energy supply, and sewage and waste treatment systems, is fundamental to a high quality living environment.

4.3.23 Sufficient and accessible cultural and community facilities and open space, which provide the venue for social interaction, help to nurture a sense of community and build up strong cohesion. Open



spaces in old urban areas tend to be small, fragmented and sometimes hidden, making them unpopular and defeating their purposes. On the other hand, the lagging behind in the implementation of planned facilities in newly developed areas is another major issue. Clearly, more needs to be done to redress these issues.

4.3.24 Other than local facilities, developing large-scale infrastructure (such as landfills, gas storage depots etc.) in a compact city is intensely challenging. The “not in my backyard” attitude would sometimes hinder the implementation of these sensitive facilities. Consultation and provision of adequate information would therefore be the key step to enhance understanding and acceptance of the community.



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Of course, there should be continuous research on new technologies that could help reduce the nuisance created by these essential facilities.

- 4.3.25 Apart from injecting new infrastructure, the concepts of energy conservation, and waste reduction and recycling can be promoted through education and publicity to facilitate a green living environment and minimise the need to build more infrastructure. In this regard, Government has already spent considerable effort, including for example, the launch of the Action Blue Sky campaign in July 2006 urging the community to save energy to combat air pollution, as well as the promulgation of a Policy Framework for the Management of Municipal Solid Waste (2005-2014) in December 2005, laying out Government's goals and strategies for reducing waste loads and prolonging the life span of landfill sites.

An Inclusive and Caring Society

- 4.3.26 It is important to ensure what we plan for could be equally enjoyed by all members of the community, irrespective of income, religion, race or abilities.
- 4.3.27 As the gap in wealth, upbringing and viewpoints in our society widens, fair access to the urban infrastructure (including affordable housing, public transport, health services, education etc.) by all members of society could help to enhance social mobility, build up a stronger sense of community and promote social harmony, which are all essential elements of our social capital.

Section II Planning Vision and Future Challenges

Chapter 5: The National Dimension



Section II

Planning Vision and Future Challenges

The National Dimension 5

*“...Strengthen the cooperation between Mainland, Hong Kong and Macao on such aspects as infrastructure provision, industrial development, use of resources, and environmental protection. Support Hong Kong to develop the service industries of finance, logistics, tourism, and information. Maintain Hong Kong’s position as an international finance, trading and transportation centre.”
(translation)*

— China’s 11th Five-Year Plan

5.1 Introduction

- 5.1.1 Our country’s open-door policies and economic reforms in the last two decades or so prompted an era of intensifying socio-economic interactions between Hong Kong and the Mainland, in particular the Pearl River Delta (PRD) Region. Reunification of Hong Kong with the motherland in 1997, China’s accession to the World Trade Organisation (WTO) in 2001 as well as the signing of the Closer Economic Partnership Arrangement (CEPA) in 2003 gave further impetus to the growth of an increasingly close relationship.
- 5.1.2 For a number of years, Hong Kong has been the largest “external” investor in the Mainland. The cumulative value of Hong Kong’s realised direct investment in the Mainland reached US\$273 billion at the end of September 2006, accounting for 40% of the total external direct investment there¹.
- 5.1.3 Given geographic proximity, Hong Kong’s relationship with our immediate neighbour, Guangdong, is the closest. The cumulative value of Hong Kong’s realised direct investment in Guangdong as at the end of 2005 was US\$105.4 billion, accounting for 37% of the total realised direct investment there. As indicated by a survey conducted by the Federation of Hong Kong Industries in 2003, Hong Kong companies have provided employment, either directly or indirectly, for

¹ Hong Kong’s Investment in the Mainland (November 2006), HKSARG Website, <http://www.info.gov.hk/info/hkin/investment.pdf>

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about 10 million workers in Guangdong². This is three times the size of Hong Kong's own manufacturing workforce.

5.2 Growing Socio-Economic Interactions

Cross-boundary Movements

5.2.1



A corollary of the intimate socio-economic ties between Hong Kong and the Mainland is the spate in cross-boundary passenger and vehicle movements. The total number of cross-boundary passenger trips rose 113% from about 75 million in 1997 to 160 million³

in 2006. Cross-boundary vehicle trips, too, grew by 58% from 9.5 million to 15.0 million over the same period.

5.2.2

In order to keep track of the trend, surveys and statistical analyses⁴ have been conducted in recent years provide a better picture of some of the behavioural patterns in cross-boundary travel to facilitate planning for cross-boundary infrastructure and provision of services.

Passenger Trips

5.2.3

Findings of the surveys and analyses confirmed a number of common beliefs in relation to cross-boundary passenger trips:

- (a) Of all provinces and regions, Guangdong has been maintaining the closest socio-economic relationship with Hong Kong, as

² FHKI's report can be viewed at http://www.industryhk.org/tc_chi/fp/fp_res/files/prdc.pdf.

³ Excluding those cross-boundary passenger trips made via the Harbour Control, Macao Ferry Terminal and Hong Kong International Airport.

⁴ These include: (a) Statistical Reports on Cross-Boundary Travel (updated annually); (b) Cross-Boundary Travel Survey (undertaken in 1999, 2001, 2003 and 2006) (the 2006 report is not available at the time of compilation of this report); (c) Thematic Household Survey on Hong Kong residents' experience of and aspirations for taking up residence in the Mainland (undertaken in 2001, 2003 and 2005); and (d) Survey on Hong Kong people living and working in the PRD Region (the PRD Survey) (completed in 2004).

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manifested by the origins and destinations of cross-boundary passengers. Within the province, Shenzhen (accounting for 67% of passenger trips made by people living in Hong Kong in the 2006 Cross-boundary Travel Survey), Dongguan and Guangzhou are the most frequently visited cities.

- (b) The major purposes of travel by people living in Hong Kong are “leisure”, “business” and “visiting relatives and friends”, accounting for 46%, 23% and 18% respectively in the 2006 Cross-boundary Travel Survey. Interesting to note is that, while the proportion of the trips for work purpose is relatively low, the growth of this category from 2% in 1999 to 7.4% in 2006 is phenomenal. In parallel, it is observed that more and more Hong Kong people living in the Mainland travelled to work in Hong Kong on a daily basis⁵. From 2001 to 2006, the number of such persons increased by about one-third.
- (c) There is a rising trend for Hong Kong residents to purchase or rent residential properties in the Mainland, particularly at the PRD cities of Shenzhen, Dongguan and Guangzhou. Despite the rise in in-bound work trips mentioned above, these properties are still in the main used for vacation or short-term residence only, and the residents normally maintain a home base in Hong Kong.
- (d) The majority of Hong Kong residents preferred to stay in Hong Kong in the near future and those intending to move to the Mainland (about 1.5% of Hong Kong residents in 2005) are largely driven by such reasons as “lower cost of living”, “for retirement” and “better living environment”.

5.2.4 With continued growth in the socio-economic development of our neighbouring cities, coupled with improved transport infrastructure, the Planning Department estimates that the annual cross-boundary passenger trips will increase by about 100 million in a decade, and may well reach 520 million by 2030, one-third of which will be taken by Mainland residents.

⁵ At least four times a week.

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Vehicle Trips

- 5.2.5 In the 2006 Cross-boundary Travel Survey, goods vehicles (including container trucks) accounted for the dominant share (about 64%) of all cross-boundary vehicle trips. The majority (93.5%) of them were made to and from the major growth centres in the eastern/central parts of the PRD Region, notably Shenzhen (56%) and Dongguan (29%).
- 5.2.6 As for private cars, cross-boundary vehicle flows could have been constrained by the handling capacities at control points. This has made it necessary to impose a tight quota system for private cars. However, with the Mainland's relaxation of the procedure for Hong Kong drivers to obtain Mainland driving licences and provision of new crossings, aspirations for cross-boundary driving and pressure for relaxing the quota system will likely increase. Besides, the closer linkage with other Mainland provinces fostered by Pan-PRD Regional Cooperation may generate new demand for driving from the associated provinces to/from Hong Kong. Assuming a high growth in private car usage and removal of the quota system, by 2030 there would be about 69 million cross-boundary vehicle trips a year, comprising about 51% private cars, 42% goods vehicles and 7% buses/coaches.
- 5.2.7 The handling capacities (two-way) of the three existing road-based control points total about 169,000 passengers and 61,000 vehicles per day, as detailed in the table below:



Control Point	Average Weekday Daily Handling Capacity (2-way)	
	Passenger	Vehicle
Lok Ma Chau (LMC)	122,000	41,000
Man Kam To	32,000	15,000
Sha Tau Kok	15,000	5,000

Source: Planning Department, April 2006-based Estimation

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- 5.2.8 The Hong Kong-Shenzhen Western Corridor (SWC) opened in July 2007 has further improved the cross-boundary passenger and vehicle flows between Hong Kong and Shenzhen. The handling capacities of SWC are shown below:

Control Point	Average Weekday Daily Handling Capacity (2-way)	
	Passenger	Vehicle
SWC	130,000	89,000 (by 2007) 140,000 (full operation)

Source: Planning Department, April 2006-based Estimation

- 5.2.9 Joint efforts with the Mainland authorities at further improvements on cross-boundary facilities (i.e. immigration, customs), together with improved cargo clearing procedures, will substantially enhance the efficiency of the boundary control points in future. The maximum daily vehicle handling capacity of all road-based control points⁶ for goods is expected to increase by about four times, from about 50,000 to 196,000 vehicles by 2020.
- 5.2.10 Apart from the forecast cross-boundary vehicle trips, it may be worthwhile to note that large volumes of cargo are being transported via river to and from the western and eastern parts of the PRD Region. Between 2001 and 2005, the annual growth rate of Hong Kong's container traffic by river transport is about 11%⁷. It is estimated that river transport will continue to grow in the years ahead.

Improvement to Cross-boundary Transport Infrastructure

- 5.2.11 Further economic activities will be triggered by the completion of the Hong Kong-Shenzhen Western Corridor (SWC) and the Lok Ma Chau Spur Line in mid 2007. Travelling time between major cities in Pearl River East Bank and



⁶ Including the Hong Kong-Shenzhen Western Corridor, Lok Ma Chau, Man Kam To, Sha Tau Kok and the Hong Kong-Zhuhai-Macao Bridge.

⁷ Study on Hong Kong Port Cargo Forecasts 2005/2006, Port Sector Profile v2 (6 August 2006)

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the container terminals at Kwai Chung could be reduced by nearly two hours. Together with the rapid expansion of the expressway system both within and outside Guangdong, access to the more remote regions will be improved. Growth in the movement of cargoes is expected to continue and the annual cargo volume between Hong Kong and South China could reach about 20 million TEUs by 2020⁸.

- 5.2.12 There are a number of plans and proposed measures to further improve cross-boundary transport linkages, including both rail and road networks. We are working in collaboration with relevant Mainland authorities to accelerate their implementation. These projects include:

(a) Hong Kong-Zhuhai-Macao Bridge (HZMB)

The HZMB will serve to connect Hong Kong with the West Bank of the Pearl River, opening up new opportunities for trade and business and industrial investment. Spanning some 35 kilometres in length across the mouth of the Pearl River, the proposed bridge will have landing points at San Shek Wan (Lantau) in Hong Kong, Gongbei in Zhuhai and the Pearl in Macao. Upon its completion, the bridge will not only shorten the distance from Hong Kong to Macao and Zhuhai but also reduce the journey time between landing points to within an hour.

(b) Guangzhou-Shenzhen-Hong Kong Express Rail Link (ERL)

The 140-km ERL will be a high-speed railway (with a maximum speed of 250km/hour) connecting Guangzhou, Shenzhen and Hong Kong. Stations have been planned at Shibi (石壁) in Panyu, Guangzhou and Futian/Longhua (福田/龍華) in Shenzhen. Besides, with onward connections with the Beijing-Guangzhou Passenger Line (京廣客運專線) via Wuhan and the proposed Southeast Coastal Railway Link (東南沿海鐵路) starting from Shanghai (interchange at Longhua), Hong Kong could become an

⁸ Study on Hong Kong Port Master Plan 2020 (HKP2020 Study)

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important gateway for international passengers travelling by rail to many major cities in the Mainland.

(c) Eastern Corridor and Liantang/Heung Yuen Wai (蓮塘/香園圍) Control Point

The Shenzhen Eastern Corridor and the Liantang Control Point were officially put forward by Shenzhen in its Comprehensive Plan (深圳市城市總體規劃) 1996-2010 to realise their “east in–east out; west in–west out” (東進東出，西進西出) transport planning principle for cross-boundary goods vehicle traffic. It is intended that through this new control point, the existing cross-boundary goods vehicle traffic from Man Kam To travelling through the city centre of Shenzhen could be diverted to a new expressway, the Shenzhen Eastern Corridor, leading to Huizhou and the eastern part of Guangdong Province. This will ease the related environmental and traffic problems impacting on the city centre of Shenzhen. The proposed control point can also strengthen Hong Kong’s connectivity with the eastern part of Guangdong and adjacent provinces. Hong Kong and Shenzhen have launched a joint study to examine various strategic implications of the proposal and relevant issues regarding the setting up of a new control point at Liantang on the Shenzhen side and Heung Yuen Wai on the Hong Kong side.

5.3 An Emerging Multi-Centred City-Region⁹

5.3.1 With the interplay of the increasing socio-economic interactions and the positive policy initiatives pursued by the Guangdong, Hong Kong and Macao governments, the Greater PRD Region¹⁰ can be viewed as



⁹ Commission on Strategic Development, “Bringing the Vision to Life: Hong Kong’s Long-Term Development Needs and Goals” (February 2000)

¹⁰ The Greater PRD Region refers to the PRD Region together with the Hong Kong and Macao SARs

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progressing towards a multi-centred city-region with distinctive functions for each centre but with strong symbiotic relations among them. A number of factors are relevant:

- (a) Increasingly, global competition is becoming a contest of the integrated economic strengths of cities within individual regions, as a city on its own is finding it difficult to secure all the factors needed for it to run the race. To advance its competitive edge, Hong Kong must pool its strengths with other cities in the PRD Region¹¹.
- (b) This development has been spurred by massive infrastructure development and rapid economic growth, especially in the PRD Region.
- (c) Rapid development and growth, while bringing on economic prosperity, are also taxing heavily on the environmental and natural resources. Environmental issues and natural resource management are best tackled through regional co-operation.
- (d) There are similar city regions in other parts of the world e.g. the Tokyo-Kobe-Osaka Region and the Netherlands Randstad Region comprising Amsterdam, Der Haag, Utrecht and Rotterdam.

5.3.2 Future development of Hong Kong hinges on how we could capitalise on the advantages of the development of this city-region within which Hong Kong, under the framework of “One Country, Two Systems”, could play its distinctive role. An important step forward in this direction was the agreement made under the Sixth Plenary of the Hong Kong/Guangdong Co-operation Joint Conference held in August 2003 which confirmed tighter coordination between Hong Kong and Guangdong in the areas of trade and services, tourism, cross-boundary infrastructure projects and control points with the objective to turn the Greater PRD Region into one of the world’s most vibrant economic hubs in the next 20 years.

¹¹ The Chief Executive’s Policy Address 2003

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The Greater PRD Study

- 5.3.3 At the Seventh Plenary of the Hong Kong/Guangdong Joint Conference held in August 2004, the two sides agreed to set up an Expert Group on Hong Kong/Guangdong Town Planning and Development by re-arranging the existing establishment. The new group will initiate more work on high-level strategic planning and foundation studies on major infrastructure projects by both parties. With a view to strengthening the competitive edge of the Greater PRD, the Expert Group has agreed to carry out the Study on the Coordinated Development of the Greater PRD Townships (the Greater PRD Study).
- 5.3.4 In the past, efforts had been made at the Guangdong provincial government level to co-ordinate spatial development of the PRD cities. In early 2003, a Study on Coordinated Development of the PRD Township (珠江三角洲城鎮群協調發展規劃研究) (the PRD Study) was initiated by the Guangdong Provincial Government in co-operation with the Ministry of Construction (國家建設部). The Plan for the Coordinated Development of the PRD Township (珠江三角洲城鎮群協調發展規劃) (The PRD Urban System Plan) was endorsed by the Guangdong People's Congress (省人大) in January 2005. To implement the PRD Urban System Plan, a new legislation (珠江三角洲城鎮群協調發展規劃實施條例) was subsequently approved by the Guangdong People's Congress in August 2006.
- 5.3.5 The PRD Urban System Plan is a plan for the PRD Region and has not taken into account the future development of Hong Kong and Macao. Nevertheless some planning proposals and concepts have an important bearing on Hong Kong and are highlighted below:
- (a) The future spatial pattern of PRD Region will be in the form of “One spine, Three axes and Five corridors” (一脊、三帶、五軸)¹² (Figure 5.1) and Hong Kong together with Shenzhen and

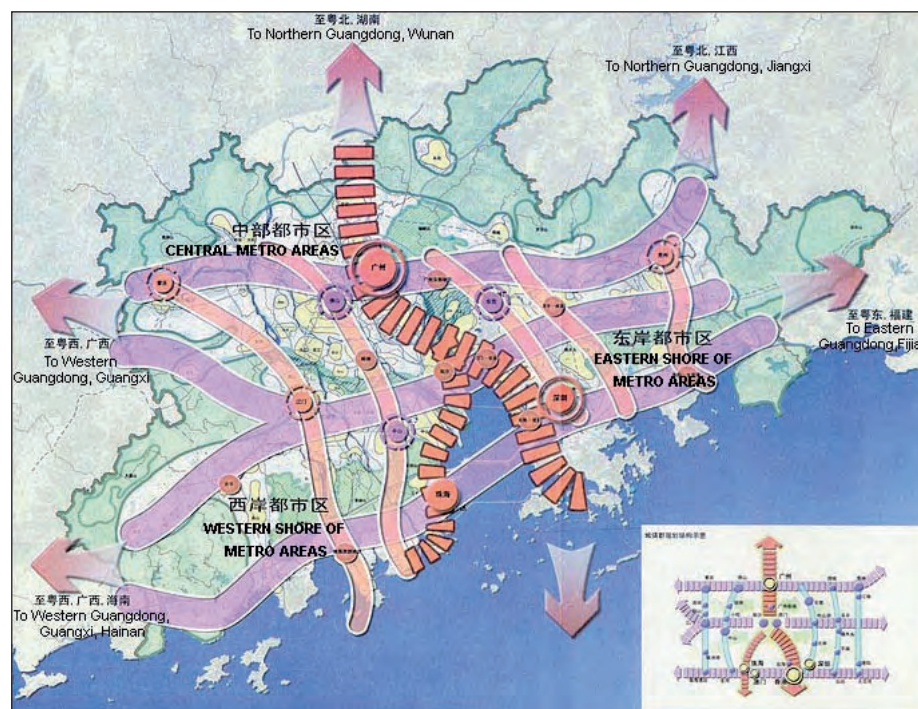
¹² One spine: Guangzhou-Shenzhen/Hong Kong and Guangzhou-Zhuhai/Macao;
Three axes: northern township (北部城市功能拓展帶), central industrial (中部產業功能拓展帶) and southern coastal (南部濱海功能拓展帶) development axes;
Five corridors: along Zhaoqing-Jiangmen-Zhuhai Expressways (江肇-江珠高速公路), National Highway 105 (105 國道), Dongguan-Shenzhen Expressway (莞深高速公路), Guangzhou-Shenzhen Railway (廣深鐵路), Huizhou-Aotou Main Road (惠澳大道).

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Guangzhou will form the regional centres of this spatial pattern. This multi-centred, consolidated development pattern will drive development in the linear form along the spine/axes/corridors, and thereby achieve overall growth across the region.

Figure 5.1 Future spatial pattern of PRD region



Source: Report of the PRD Urban System Plan

- (b) The new Beijing-Guangzhou Passenger Railway (京廣客運專線) would be extended to Hong Kong via Shenzhen (廣深港客運專線).
- (c) A new road/railway link across the Pearl River Estuary will be developed in addition to the HZMB.
- (d) Different sections of the PRD Inter-city Rapid Transit (珠三角城際快速軌道) will be proposed for connecting with Hong Kong.
- (e) Co-operation amongst the five airports within the PRD Region (i.e. Guangzhou, Zhuhai, Shenzhen, Hong Kong and Macao) will be strengthened for better utilisation of the airport infrastructure and amongst the PRD ports to ensure division of work.

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- (f) Liaison with Hong Kong and Macao will be reinforced in order to protect the “Bay Area” (灣區), in particular its ecology.
- (g) Tourism development will be promoted through co-operation with Hong Kong and Macao in particular the coastal areas of the PRD Region to create the brand name of “Sunshine Coast” (陽光海岸).

5.3.6 The Greater PRD Study will build upon the findings of the PRD Study and other strategic studies like the HK2030 Study to work out an overall strategy for the region. It serves to achieve the following:

- (a) derive a development strategy that is beneficial to the Greater PRD Region as a whole and that provides a good link with the Pan-PRD Region (discussed in the Section III);
- (b) present a strategic planning framework by addressing issues affecting both Hong Kong and the PRD Region like cross-boundary infrastructure, environmental management, co-operation and co-ordination mechanism and also recommending possible actions to cope with these issues;
- (c) serve as a platform for both sides to exchange information, share ideas and deliberate issues relating to the future planning and development of major infrastructure projects, e.g. railway, road, port, affecting the overall development of the Greater PRD Region.

The study started in March 2006 and will take about two years to complete.

Pan-PRD Regional Co-operation

5.3.7 Another recent important development is the broadening of the geographical extent of regional collaboration, epitomised by the Pan-PRD Regional Co-operation agreements. The Pan-PRD



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concept is aimed to achieve a synergy effect in the broader region by promoting co-operation amongst neighbours of Guangdong Province. Membership consists of nine provinces (Guangdong, Fujian, Jiangxi, Guangxi, Guizhou, Hainan, Hunan, Sichuan and Yunnan) and the two Special Administrative Regions (SAR) of Hong Kong and Macao. The nine Pan-PRD provinces accounted for 33% of Mainland's GDP, 34% of population, 21% of land area, and 36% of foreign trade in 2005.

- 5.3.8 A Pan-PRD Regional Co-operation Framework Agreement (泛珠三角區域合作框架協議), which was signed at the first Pan-PRD Conference in June 2004, covers ten areas of potential co-operation, including infrastructure development, commerce and trade, tourism, agriculture and environmental protection etc. In addition, amongst the Pan-PRD members, a number of separate agreements on a spectrum of issues covering trade, intellectual property protection and infrastructure have been signed. Subsequently, the Guangdong Development and Reform Commission has prepared a Thematic Planning Study on the Comprehensive Transport System of the Pan-PRD Region (泛珠三角區域綜合交通運輸體系合作專項規劃). After consultation with various Pan-PRD members including HKSAR Government, the summary (綱要) of the study was endorsed in principle at the Chief Executive Joint Conference (行政首長聯席會議) in June 2006. It put forward the main directions for co-operation in regional transport infrastructural development. More specifically, it pointed to a higher emphasis on passenger railway development, a quicker pace for construction and development of transport links within the Region, stronger cross-boundary linkages and routes to seaports, better use of transport infrastructure within the Region, and improved coordination in the management of different transport facilities.
- 5.3.9 Though joining the Pan-PRD Conference offers Hong Kong a number of opportunities, we could be faced with a number of challenges as well, like the lack of a comprehensive marketing network in the region and experiences in co-operation with provinces outside Guangdong. We could also be subject to increased competition in view of the rapid infrastructural development in our neighbouring Mainland cities and our relatively slow progress in cross-boundary infrastructure

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development. As an initial response, Hong Kong needs to focus its efforts in the PRD Region and the core of the Pan-PRD Region by improving its infrastructural connection with other cities within the PRD Region. We also need to strengthen our role as the gateway to China by enhancing our business environment and attracting more regional headquarters and representative offices to use Hong Kong as their base to gain access to the Pan-PRD markets.

5.4 Future Plans

Eleventh Five-Year Plans

5.4.1



The Eleventh Five-Year Plan (11-FYP) for 2006-2010 at the national level was ratified by the National People's Congress in March 2006. It sets out the major directions of the socio-economic development

and important projects to be pursued in the next five years, and includes various topical studies e.g. infrastructure, environmental protection and employment. Apart from the national-level 11-FYP, the provincial and city-level 11-FYPs prepared by Guangdong and our neighbouring cities in the PRD Region also have an important bearing on Hong Kong's future development. A few key issues are highlighted as follows:

- (a) In the 11-FYP, our position in the national economic development has been clearly laid down. It states that "Hong Kong's position as an international finance, trading, logistics centre would be maintained". Though this is not a prescription for us, this mentioning is Central Government's confirmation of the significance of Hong Kong in the future development of the entire nation.

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- (b) Guangzhou, another main centre in the Greater PRD region, aspires in its 11-FYP to be the regional centre of Southern China. It aims to develop car-manufacturing, steel and oil-refining industries to serve the internal economic development needs of Guangdong Province and its neighbouring areas. Though its current emphasis is on serving the internal market, relying on Hong Kong to connect Guangdong's manufacturing base with the global market, its rise in future as a major economic force in Southern China with influence extending to other ASEAN countries through improved infrastructural connections certainly prompts us to consider carefully how Hong Kong should position itself in the region in the future.
- (c) Shenzhen, in its 11-FYP states that it will position itself as a regional financial centre. It also aims to serve Hong Kong (in trade, logistics, finance) and to strengthen the linkage and co-operation between the two places by establishing a Shenzhen-Hong Kong co-operation circle. Hong Kong and Shenzhen already have very strong socio-economic linkages. In June 2004, the Shenzhen and Hong Kong authorities signed a memorandum on closer Hong Kong/Shenzhen Co-operation to deal with issues of mutual concern. Under the memorandum, a number of priority co-operation items have been identified, such as enhancing the efficiency of control points and launching the proposed Liantang/Heung Yuen Wai control point study.
- (d) With the construction of the HZMB, there will be a direct surface linkage between Hong Kong and Zhuhai as well as other cities on the West Bank of the Pearl River. Zhuhai, as stated in its 11-FYP, would make efforts to improve its road and rail connections with other cities in the PRD Region and cities in the Western Region. It will gradually develop from a fringe position into a regional hub, taking the advantage of its proximity with Hong Kong and Macao. On the eastern side, Zhuhai would support Hong Kong and Macao to serve the international market, while on the western side, through its planned transportation network, would support

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the provinces of the Western Region to serve and expand the internal as well as the ASEAN markets.

- (e) The overall policies embedded in the national 11-FYP also have other implications. Positive actions on the enhancement of the economic structure from a “labour-intensive” mode to a “high-value-added, high-skill-input, high-tech” mode, particularly in the PRD, imply that Hong Kong has a bigger role to play in assisting the Mainland in technology development/transfer, especially through our universities and research institutions. Moreover, this process will require substantial funding. Hong Kong could continue its function to help finance Mainland’s economic activities, and in doing so, strengthen its role as an international financial centre.
- (f) The shift from foreign-investment-driven economic growth to heavier reliance on the domestic market provides further advantage to Hong Kong, especially after the signing of CEPA.
- (g) The policy to promote a more balanced regional development implies that the currently deprived peripheral areas, particularly in the west, could offer both new bases for labour-intensive manufacturing processes as well as new markets.
- (h) Rising concerns on sustainable development, energy conservation and environmental protection in the Mainland could help to remove past hurdles in instigating joint efforts to improve the environment. A shift to cleaner industries too will facilitate quicker and better results in improving regional air and water qualities.

Shenzhen 2030

- 5.4.2 The Shenzhen 2030 Study, which was approved by the Shenzhen People’s Congress in July 2006, has clearly stated that Shenzhen’s future will hinge on joining forces with Hong Kong to develop into an international megalopolis. Shenzhen will look upon Hong Kong as the future main driving force of the PRD and will actively provide means to

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attract more Hong Kong high-value-added industries to establish in Shenzhen and explore ways to co-operate with Hong Kong on high-tech industries, logistics and high-value-added services. On transport linkages with Hong Kong, the proposal for a new control point at Liantang was restated.

Zhuhai 2030

- 5.4.3 Recently the Zhuhai planning authorities have also launched a Zhuhai 2030 Study. The main purpose of the study is to develop Zhuhai into a regional city centre on the West Bank of the Pearl River by 2030, performing such functions as a regional business, trading, servicing and financial centre; a regional sea and land transportation hub; a waterfront industrial base on the Pearl River West Bank; and a sub-tropical scenic seaside resort.

5.5 Hong Kong's Evolving Role

- 5.5.1 As the Mainland undergoes rapid development, the role played by Hong Kong is clearly experiencing further transformation. With our open economy, global perspective, good infrastructure, well-established institutions and strong entrepreneurship, our particular geographical location, and the framework of "One Country, Two Systems", we could still present our worth to the country, both as a gateway to draw in global finance, and technology to support growth in the Mainland economy, as well as a springboard for Mainland enterprises to reach out to the world market. In addition, Hong Kong also serves as a service-provider for the Mainland.
- 5.5.2 However, rising competition from other cities and regions implies the need to look beyond this role. Hong Kong is China's demonstration to the world of a global city on her home turf. We therefore need to ensure that Hong Kong can keep up with the "globalism" it represents. That implies constantly moving forward – being a forerunner in the sustainable development arena, not only by lip service but by genuine action, could be the answer. We need to do more on innovative, cultural and creative industries and in producing brand names. We also need to invest more on information and technological research and development as well as training and

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pooling of talent. Furthermore, strengthening co-operation with Mainland cities and provinces (especially those within the PRD), opening further channels for information exchange and close monitoring of their development plans will be of great importance. We will also need to continue to reinforce our cross-boundary transport infrastructure to ensure unimpeded flows of people, goods and vehicles to and from all directions.



Section II Planning Vision and Future Challenges

Chapter 6: The Changing Economy

Section II

Planning Vision and Future Challenges

The Changing Economy

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“Economists set themselves too easy, too useless a task if in tempestuous seasons they can only tell us that when the storm is past the ocean is flat again.”

— John Maynard Keynes

6.1 Economic Development in Historical Perspective

- 6.1.1 Hong Kong has experienced major economic transformations – from a fishing village to an entrepot in the 1950s and 1960s, then to a light industrial base in the 1970s and 1980s. The past two to three decades saw the opening up of the Mainland with the attraction of low costs of land and labour, as well as policy and tax incentives, resulting in bulk relocation of Hong Kong’s manufacturing activities northwards. At the same time, the service industries have expanded and become the thrust of our economy, enhancing Hong Kong as a major financial, business, trading and transportation centre in the Asia Pacific Region.
- 6.1.2 Hong Kong’s economy has had its ups and downs. Growth has been sustained by our fine institutions, diligent workforce as well as maintaining as one of the most open economies in the world. However, we also have had bad times – more recently the Asian financial crisis of the late 1990s, which was aggravated by the Severe Acute Respiratory Syndrome (SARS) incident in 2003, pushing our economy to its lowest (–3.4% in Gross Domestic Product (GDP) growth). Fortunately, we have been on a steady path of revival since then. In 2006, the GDP grew by 6.5% over 2005 to some \$1,472 billion. Export of goods and services recorded a growth of 10.2% and 13.4% respectively; fixed asset investment rose (5.1%) further and consumer spending continued to rise (4.8%). With the unemployment rate fallen to 4.8% in 2006, total persons engaged reached 3.48 million.

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6.2 Economic Restructuring Continues

6.2.1



The process of economic restructuring continues through a constant climb up the value chain, demanding high-skill and high-technology input and high-value-added services. In recent years, Hong Kong's workforce has grown at

an average annual rate of 1%, while the corresponding rate for the more highly-skilled, professional and managerial workforce has been close to 4%. In 2006, about one in three of our working population belonged to this category.

6.2.2

High-skill employment is found in the key industries of financial services, producer/professional services, and to some extent, the trading, logistics and transportation sector. These are also significant contributors to our GDP growth. Together with another important sector, tourism, the value added of these industries amounted to \$740 billion in 2005, accounting for over 55% of the GDP. About 1.55 million persons were engaged in these four key sectors, accounting for about 46% of the total employment. They have been the driving force of our economic growth and are expected to continue to be so.

6.3 Economic Prospects

6.3.1

Looking ahead, our economic link with the Mainland is still undoubtedly our greatest advantage in sustaining growth in the long run. As noted in the previous chapter, the Mainland's vigorous economic growth and intensification of reforms offer us unrelenting opportunities. Our future strategy must focus on how we can leverage on this advantage for mutual benefits.

6.3.2

As one of the most open economies of the world, Hong Kong also needs to look constantly at global trends. The world's economy is becoming more globalised as a result of free trade and advances in information

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technology. The conclusion of the General Agreement on Tariffs and Trade (GATT) and the subsequent establishment of the WTO reflect progressive removal of trade barriers relating to goods and services, although this process has been to some extent stalled by another wave of protectionism in the making. At the same time, technological advances in communications and transportation have drastically reduced the distance between markets. Transaction procedures have been streamlined. Suppliers from all corners of the world now engage in keener and more direct competition. Hong Kong needs to think of new ways to compete in the world market successfully.

- 6.3.3 One of the planning objectives for the HK2030 Study is to enhance Hong Kong's hub functions by providing sufficient land reserves to meet the changing needs of different economic sectors. We have therefore analysed development trends of the important growth sectors of Hong Kong to set the scene for the formulation of strategies to meet this objective.

6.4 Financial and Business Services

Financial Services

- 6.4.1 Hong Kong is one of the most vibrant international financial centres in the world. Our financial sector is characterised by an integrated network of financial institutions and markets. We are now the world's thirteenth largest banking centre in terms of external assets and the 6th largest centre for foreign exchange trading. We have overtaken Tokyo since 2004 as the leading equity fundraising market in Asia. Of the world's top 100 banks, 71 have operations in Hong Kong. Hong Kong also operates one of the most active physical gold markets and one of the most open insurance centres in the world.
- 6.4.2 In 2005, the financial services sector employed about 180,000 (5%) of Hong Kong's working population, and its activities accounted for around 14% of GDP.



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- 6.4.3 We enjoy a number of advantages, including a sound regulatory regime, an efficient and transparent market and many financial professionals from around the world experienced in providing services to Mainland enterprises. In the long run, this sector is likely to remain a key pillar in sustaining economic growth for Hong Kong. Government has been actively exploring ways to improve the “software” with regard to, for example, expanding the scope of renminbi (RMB) business, facilitating market development, upgrading the quality of our financial markets and promoting our brand name etc.

Business Services

- 6.4.4 The business service sector plays an important role in supporting the continuous and rapid expansion of our services over the past two decades. The contribution of the business services to our GDP rose from 2% in 1980 to almost 5% in 2005.



- 6.4.5 The liberalisation measures in trade in services agreed under the Mainland and Hong Kong Closer Economic Partnership Arrangement (CEPA) will permit earlier and wider access of our service suppliers to the Mainland market, ahead of China's World Trade Organisation timetable.
- 6.4.6 Taking all phases of CEPA together, the Mainland has agreed to provide preferential treatment to Hong Kong service suppliers in 27 service areas. All the liberalisation measures took effect from 1 January 2007. Implementation of the CEPA has therefore offered new business opportunities in the Mainland for Hong Kong professionals and service providers and promote further growth in this sector.

The Central Business District

- 6.4.7 Other than improving the “software”, parallel efforts are needed to strengthen the “hardware” required, for example, through continued provision of an attractive office environment, especially at the central business/financial district, which not only can enhance business

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efficiency, but provide the status and prestige demanded by top-end firms and multi-national corporations. For many of these firms, being located at the central business core and accommodated within high-quality, iconic office buildings would be considered most essential.

- 6.4.8 A successful central business district requires a number of attributes, including good accessibility, sufficient land for a continued supply of high-grade office buildings, as well as adequate supporting facilities. We need to take these factors into consideration in enhancing our existing central business district and, if necessary, plan for its expansion.

6.5 Trade

- 6.5.1 With more than 100,000 trading companies and one of the world's busiest container ports and international air cargo operation, Hong Kong ranks eleventh largest in the world both as a trading economy and exporter of commercial services. Total exports recorded a 9.4% gain in 2006.
- 6.5.2 The vibrant export growth has been underpinned by the Mainland's strong demand for industrial inputs for export production, notably electronics parts and components due to stronger-than-expected global demand for electronic products, and sustained consumer demand from the United States and the European Union, especially for garments amid quota removal. At the same time, unit value of Hong Kong exports also rose by 1% in 2006, contributing to good export performance.

Secondary Office Nodes

- 6.5.3 In terms of scale of operation, Hong Kong's trade sector is dominated by small and medium-sized enterprises (SME)¹.



¹ Defined as manufacturing enterprises with less than 100 employees or non-manufacturing enterprises with less than 50 employees.

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As at December 2005, there were about 97,000 SMEs conducting import/export trades in Hong Kong, engaging over 410,000 persons. This accounted for the bulk of all trading firms, and over one-third of total SME establishments (268,000).

- 6.5.4 Most of the SMEs choose to establish their offices at secondary office nodes which offer good accessibility and relatively affordable rental levels. According to a Commercial and Industrial Floorspace Utilisation Survey², around 46% and 70% of the floorspace of the non-Grade-A office and the industrial/office buildings, respectively, in the Metro Area outside the central business district were occupied by import/export and wholesale trading firms.
- 6.5.5 In fact since the mid-1980s, we have been progressively relaxing the planning controls on the use of industrial buildings in response to continued trends for a changing economy. Old industrial areas like Kwun Tong, Cheung Sha Wan, Kowloon Bay and Tsuen Wan, transformed into secondary office/business nodes, are now accommodating many of the firms related to the trading sector.
- 6.5.6 In view of the importance of trading firms to Hong Kong's economy, we should continue to explore further opportunities to optimise the use of any surplus industrial land or obsolete industrial buildings. Moreover, the existing secondary office/business nodes could also be enhanced through various area improvement schemes.

Convention and Exhibition Facilities

6.5.7



Under a robust environment for trade, Hong Kong is undeniably a natural locational choice for a variety of conventions and exhibitions, including the world's largest leather fair, events for watches and clocks, electronics, gifts and houseware, jewellery, toys and games, optical goods and cosmetics etc.

² Source : Planning Department (2005)

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- 6.5.8 To support these events, we have provided a number of world-class convention and exhibition facilities. The Hong Kong Convention and Exhibition Centre (HKCEC) in Wan Chai North provides around 64,000 square metres of exhibition space. A wide range of other exhibition sites, including the nearby Hong Kong Exhibition Centre and the Hong Kong International Trade and Exhibition Centre in Kowloon Bay is also available for various types of events. The opening of the AsiaWorld-Expo (AWE) in Chek Lap Kok in 2006, with its 70,000 square metres of rentable space, further strengthens our attractiveness in hosting major events.
- 6.5.9 Convention and exhibition activities do not only facilitate trade, they are also an important booster to the tourism industry. In 2006, business travellers visiting Hong Kong accounted for 24% of the total visitor arrivals. The business visitors have all along been a high-yield segment spending considerably more than the average visitor³.
- 6.5.10 With ample supply of exhibition space and the advantage of being situated close to the production bases, our neighbouring cities in the PRD are presenting great challenge to the future development of our convention and exhibition businesses. Continued effort is therefore needed to reinforce Hong Kong's position as a major convention and exhibition venue of the Asia Pacific Region. Part of this effort includes the Atrium Link Extension project of the HKCEC, which when completed in early 2009, will provide an additional 19,400 square metres of exhibition space. Moreover, the AWE has the capacity of further expansion to a total 100,000 square metres of exhibition space. Consideration could also be given to the setting up, in the longer term, of more convention and exhibition facilities to consolidate Hong Kong's role as a trade fair capital.



³ According to a survey conducted by the Hong Kong Tourism Board, the intended per capita spending for exhibition and convention visitors was \$10,349 in 2004, whereas the average spending of all overnight visitors was \$4,478. Source: A Statistical Review of Hong Kong Tourism 2004.

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6.6 Logistics

- 6.6.1 South China is a major global manufacturing centre and Hong Kong is an international logistics hub. Our airport has the world's largest international cargo throughput, and our container port is among the busiest in the world. Nevertheless, in the face of competition from nearby regions, Hong Kong's logistics industry is making every effort to improve efficiency and provide speedy, reliable and full-scale value-added logistics services so that quality can compensate for cost differentials.

Port Services

- 6.6.2 In 2005, the Hong Kong Port together with mid-stream operations and the River Trade Terminal in Tuen Mun handled some 22.6 million Twenty Foot Equivalent Units (TEUs) of cargo. It is now served by some 80 international shipping lines, providing over 400 container liner services per week connecting to over 500 destinations worldwide.
- 6.6.3 The port has contributed significantly to our GDP growth and employment. Taking into account interactions between core port industries and the rest of the economy, the port core sector constituted around 4% of Hong Kong's GDP in 2002. About 110,000 jobs, or 3.4% of total employment, are directly or loosely linked to the port.

Looking Ahead

- 6.6.4 According to the Study on Hong Kong Port – Master Plan 2020 (HKP2020 Study) completed in November 2004, the future market for port services is marked by the favourable growth prospects of the cargo base but increased competition for Hong Kong.



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- 6.6.5 Results of the preferred forecast scenario of the HKP2020 Study suggest that:
- Total Hong Kong ocean container throughput could increase from 13.9 million TEUs in 2002 to 31.8 million TEUs in 2020. However, as the base expands, the annual growth rate is expected to slow down from 5.7% during 2010-2015 to 3.4% during 2015-2020, with the share of South China direct ocean cargo base routing via the Hong Kong Port continuing to fall due to rising competition from Shenzhen ports.
 - Hong Kong's river trade volume is expected to increase from 5.2 million TEUs in 2002 to 8.5 million TEUs in 2020.
- 6.6.6 The HKP2020 Study estimated that the maximum capacity of the existing container port (CT1 to CT9) is around 18.6 million TEUs, with a potential to increase by another 1.7 million TEUs. In the short term, significant additional handling capacity can be added to the existing container terminals so that new container berths will not be needed at least until the first half of the next decade.
- 6.6.7 While it is important for the Government to continue optimising the efficiency of the current terminals and monitoring the market conditions, we need to plan ahead in response to the growth needs of this sector. Indeed, there has been some request from the community for strengthening our port and logistics infrastructure to better serve the needs of the region. However, port operation places a very heavy strain on land resources, infrastructure and the environment. Public concerns over the adverse impacts caused by port development and operations, as well as the proliferation of back-up uses in the New Territories have intensified over years. A careful balance between port development and its impacts on our resources and the environment is therefore needed in the formulation of our future strategy.

Air Services

- 6.7.1 Hong Kong is a global aviation centre. The Hong Kong International Airport (HKIA) at Chek Lap Kok handles more than 700 flights a day

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operated by over 80 airlines. About 50% of the world's population is linked to Hong Kong within five hours' flying time.

- 6.7.2 In 1998, the HKIA opened for business with one (south) runway and a projected annual capacity of 35 million passengers and 3 million tonnes of cargo. Construction of the second (north) runway and completion of the Northwest Concourse of the Passenger Terminal Building in May 1999 and January 2000 respectively, increased the HKIA's passenger handling capacity to 45 million a year. The two runways can handle an ultimate capacity of over 60 aircraft movements an hour.
- 6.7.3 The significant boost in runway and terminal capacities coupled with the airport's 24-hour operation has facilitated rapid development of our airport services. The passenger flow increased from 33 million in 2000 to 44.5 million in 2006. During the same period, cargo throughput also rose from 2.2 million tonnes to 3.58 million tonnes and aircraft movements from 182,000 to 263,000.
- 6.7.4 With the opening of a new Airport-Mainland Coach Station as well as the SkyPier airport ferry terminal, the HKIA has been transformed into an inter-modal transportation hub combining air, sea and land transport. The coach station operates some 200 bus-trips per day, which carry passengers between HKIA and some 40 destinations in the PRD. The SkyPier provides cross-boundary ferry services to the ports at Shekou, Shenzhen, Macao, Dongguan and Zhongshan. The provision of cross-boundary coach and ferry services is a significant step forward in broadening the service catchment of our airport.

Airport Master Plan

- 6.7.5 In 2001, the Airport Authority Hong Kong (AA) formulated a long-term development, Master Plan 2020, for the HKIA. Since then, AA has been pursuing various initiatives to enhance the HKIA's capacity to cope with the continuing growth in air traffic. These include the construction of a second passenger terminal building, provision of additional cargo parking stands and cargo handling facilities, construction of a permanent cross-boundary ferry terminal, enhancement of the flow and capacity of the existing passenger

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terminal building, construction of a satellite concourse for use by small aircraft, etc.

- 6.7.6 On 21 December 2006, AA released their update on the Airport Master Plan (known as the HKIA 2025). Taking into account latest economic trends in Hong Kong and the region as well as potential competition from neighbouring airports,



it is forecasted that by 2025, HKIA will serve 80 million passengers, handle 8 million tonnes of cargo and 490,000 aircraft movements each year. Other than the facility expansion already planned, the report also indicated that in the longer term, it is critical to enhance HKIA's runway capacity. The AA has initiated engineering and environmental feasibility studies on the construction of a third runway at HKIA. The decision to build the new runway will depend on the results of the feasibility studies.

- 6.7.7 Separately, the planned Hong Kong-Zhuhai-Macao Bridge (HZMB) will enhance the connection between PRD West Bank and our airport. Given our unique geographical location and excellent infrastructure, especially after the completion of the HZMB, Hong Kong's air services, air cargo in particular, are likely to be a key area in sustaining our long-term economic growth. Priority needs to be given in strengthening this sector to ensure that we could remain strong in the face of rising competition.

6.8 Special Industries

- 6.8.1 Innovation and technology are important drivers of the long-term growth of an economy for both production and services. Improved technology in the manufacturing sector could result in more efficient production, packaging, marketing or distribution, which in turn could lead to cost reduction and greater buyer differentiation. The Government has a strong commitment in driving forward innovation and technology through establishing a strategic framework which

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emphasises focus, market relevance, industry participation, leverage on the Mainland and better coordination among different elements of the innovation and technology programme. Also important is the provision of suitable technology infrastructure to facilitate technological upgrading and development of the industry, as further described below.

Industrial Estates

6.8.2



The industrial estates in Hong Kong offer a well-planned landscaped environment, with convenient amenities and efficient communications network for manufacturing and service industries which cannot operate in multi-storey

factories or commercial buildings. They have helped broaden the industry base and upgrade the technology level of Hong Kong.

6.8.3

First established in 1977, the industrial estates were originally targeted at manufacturing operations only. Following the changing character of the manufacturing sector and the increasing contribution of service industry, the scope of activities permissible in industrial estates were extended twice in 1990 and 1998 respectively. The first change was to include the supporting services for manufacturing industries (e.g. research and development, technical centres and prototype design), while the second transformation was to further enlarge the scope to include service industries (e.g. broadcasting industry).

6.8.4

At present, the industrial estates in Tai Po and Yuen Long are fully occupied while the one in Tseung Kwan O is about 60% full as at October 2006. We will need to monitor closely the demand for accommodation within the industrial estates and reserve adequate land for the purpose when necessary.

6.8.5

Special industries are in general land extensive and location sensitive, but the production of large pieces of development land often takes

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a long time. The land bank concept is therefore particularly relevant to special industrial uses. In order to readily accommodate the unanticipated land needs arising from investment or policy changes, we need to plan ahead and examine the need for any further infrastructure, such as a fourth industrial estate. The land bank concept will be further discussed in Chapter 9 of this report.

Other Technology Infrastructure

- 6.8.6 The Government has been promoting the use of technology and design and drivers for further economic growth. Thus facilities like the Cyberport at Telegraph Bay, the Science Park at Pak Shek Kok and InnoCentre at Kowloon Tong have been established to create clusters in information technology (IT), high technology, research and design (R&D), as well as design and branding. To ensure long-term sustainable economic growth, consideration may be needed to further reinforce our infrastructure in this area.

6.9 Cultural and Creative Industries

- 6.9.1 Cultural and creative industries broadly refer, in the context of Hong Kong, to industries with value added through creativity. Eleven industrial sectors have been identified as the major components of Hong Kong's creative industries, namely, (1) advertising; (2) architecture; (3) art, antiques and crafts; (4) design; (5) film and video; (6) digital entertainment; (7) music; (8) performing arts; (9) publishing; (10) software and computing; and (11) television and radio. Some of these may also contain technology content and therefore overlap with those described under the previous section.
- 6.9.2 Cultural and creative industries could provide an enabling environment to nurture creative talents (especially among young people), arouse awareness of the importance of this sector, generate employment, and support intra-regional and international cultural networks.



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6.9.3 Overseas experiences show that cultural and creative industries can help strengthen the economic base and facilitate a smoother economic restructuring process. In 2005, cultural and creative industries accounted for only about 4% of our GDP. Compared with other countries, e.g. 8% in the United Kingdom, there still seems to be scope for growth.

6.9.4 As this sector is so diverse in type, different uses may have very different accommodation requirements and infrastructure support. For example, cultural events will require special performing venues such as those to be provided at the West Kowloon Cultural District. Art and designer studios, on the other hand, may tend to scatter among other land uses, e.g. commercial/residential areas or industrial districts. We need to carefully identify the particular needs of different users and plan for their accommodation and infrastructure requirements accordingly.



6.10 Tourism

Visitor Arrivals in Historical Perspective

6.10.1 Tourism is one of the core engines of Hong Kong's economic growth. A boom in the tourism industry could improve the overall market sentiment, boost growth in related sectors and contribute to the overall employment, especially jobs requiring a lower skills level. In 2006, total visitor arrivals increased by 8.1% over 2005 to 25.3 million and the total tourism receipt increased from \$106 billion to \$119 billion during the same period.

6.10.2 With the Mainland's relaxation of the quota for Hong Kong Group Tour Scheme which took effect in January 2002 and the introduction of the Individual Visit Scheme for travellers from a number of Mainland cities to visit Hong Kong, which has been implemented by phase since July

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2003, Mainland visitors to Hong Kong rose to 13.6 million in 2006, accounting for 54% of the total number of visitors.

Potential for Further Growth

- 6.10.3 The World Tourism Organisation forecasts that the number of tourist arrivals to Hong Kong could reach about 57 million by 2020 with an annual growth of about 7%. That being the case, Hong Kong would rank fifth among the top destinations of the world in 2020. It would also become the second most popular destination in the East Asia Pacific Region behind the Mainland (which will at the same time rank fourth in outbound global travel).
- 6.10.4 Taking advantage of our geographical location, Hong Kong can act as a tourism gateway of China, capturing both outbound travellers from the Mainland and en-route inbound visitors to the Mainland. There is scope to fortify the already formed alliance with our immediate neighbours in the PRD region, i.e. Macao and Guangdong, for multi-destination tours for international travellers, for example through a continuous commitment to upgrade existing attractions and implementation of new tourism projects.
- 6.10.5 A number of new tourism facilities have been put in place, such as the Hong Kong Disneyland, the Wetland Park at Tin Shui Wai and the Ngong Ping Skyrail. New major tourism resources are being examined under various separate studies, such as the study on the Lantau Concept Plan, the redevelopment of the Ocean Park, the Harbour Plan and the Kai Tak Planning Review (for a new cruise terminal cum tourism node in the Kai Tak runway area) etc.



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Growth of Alternative Tourism

- 6.10.6 To attract new visitors to Hong Kong, lengthen their stays and encourage repeated visits, we need also to widen the range of tourists' experience and diversify Hong Kong's visitor attractions for business and leisure visitors. New themes, i.e. ecotourism and cultural tourism, which provide opportunities for tourists to enjoy our unique cultural heritage and natural beauty, could be strengthened for long-term tourism development.

Ecotourism

- 6.10.7 By definition of the United Nations Environment Programme, ecotourism, is tourism which promotes natural areas, educates those visiting them, and benefits local people and the local economy.

- 6.10.8 Although Hong Kong is only a very small city, it has a rich and diverse ecology and wetlands of global importance. Ecotourism can be developed and promoted as one of our diverse attractions to provide visitors with an alternative experience of Hong Kong through appreciation of its bio-diversity.



- 6.10.9



In order to capitalise on existing resources, the 23 country parks and four marine parks in Hong Kong have been carefully protected for nature conservation, outdoor recreation, countryside education, tourism and scientific studies. Moreover, the Hong Kong Wetland Park opened in May 2006 also adds to this inventory.

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- 6.10.10 We need to continue to seek new opportunities for developing and promoting existing resources and to invest in unique new attractions. On the latter, the potential for green tourism in the Plover Cove/Tolo Channel area and Tung Ping Chau has been explored by the Tourism Commission. There is also room to enhance existing ecotourism activities such as the Dolphin Watch and the tour of the Mai Po Nature Reserve.
- 6.10.11 In developing ecotourism, careful consideration should be given to the provision of appropriate facilities, and balancing different needs including conservation, sustainable development and local economy. Most importantly, we need to foster a culture of respect for the nature in both the tourists and the operators and develop suitable protocols where necessary to avoid damage to the environment through irresponsible acts.

Cultural Tourism

- 6.10.12 A fusion of the East and the West together with a mix of the old and the new have made up Hong Kong's unique cultural character. To cater for visitors' interest in Hong Kong's unique culture, special attention to strengthen our arts, culture and heritage attractions should be given.
- 6.10.13 Existing cultural attractions, including museums and galleries, showcase magnificent collections of antiquities and modern objects of interest. Numerous performing venues and programmes attract local and international cultural performances. The West Kowloon Cultural District, which has recently been re-planned, will also provide a number of world-class arts and cultural facilities appealing to locals and tourists alike.
- 6.10.14 Heritage conservation, too, provides a vivid opportunity to present our unique culture. A number of historical buildings, such as the Kom Tong Hall in Central, the Morrison Building in Tuen Mun and the



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Leung Ancestral Hall in Yuen Long have been conserved. Heritage trails such as the Ping Shan Heritage Trail, the Lung Yuek Tau Heritage Trail and the Central and Western District Heritage Trail have been well patronised by local residents and overseas tourists.

- 6.10.15 Similar to ecotourism, in order to achieve a sustainable cultural tourism, a careful balance is needed between the conservation objectives and development needs. Creative methods need to be considered to turn a conserved heritage into a living and functional part of the community that could benefit our culture, community and economy.

Planning for Hotels

- 6.10.16 Hotels and other forms of visitor accommodation are an essential infrastructure for the tourism industry. As of June 2007, Hong Kong had 139 hotels providing about 51,700 rooms. The average occupancy rate was 87% in 2006.
- 6.10.17 Other than those hotels which link with major tourism developments like the Hong Kong Disneyland, it is our policy in the planning for hotels to provide flexibility in land use zoning, allowing the market to respond to demand, rather than to identify particular sites for the use. Hence, there is no specific zoning for hotels, but such developments are permissible under a number of zonings, including primarily “Commercial”, “Residential” (Groups A, B and E), “Recreation” and most of the “Comprehensive Development Area” zones.
- 6.10.18 In addition, to promote better use of industrial buildings, the Town Planning Board (TPB) introduced the “Other Specified Uses” annotated “Business” (“OU(B)”) zone in October 2000 so that industrial buildings can be used or redeveloped for both industrial and office/commercial purposes including hotels. This has provided another locational choice for new hotel projects. From January 2001 to early September 2007, the TPB had approved a total of 48 hotels and two hotel-cum-office developments within the “OU(B)” zone.

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- 6.10.19 In June 2007, the Hong Kong Tourism Board estimated that 42 new confirmed hotel projects (including addition and alteration) will be completed before 2011, providing an addition of about 10,800 rooms. However, as the long-term supply of hotels is less certain, the hotel demand and supply situation will need to be monitored on a regular basis so that potential shortfall could be readily identified to ensure adequate supply through efficient market response.
- 6.10.20 In addition, different categories of visitors (i.e. business, recreation, family-based and individual) exhibit fundamental differences in hotel choices. For example, individual travellers generally favour hotels located at transport hubs which allow easy travelling. Business travellers would prefer prime hotels located at the central business district. In order to satisfy various target groups, it is important to encourage the market to provide diversity in the types of accommodation.

Cross-Boundary Infrastructure

- 6.10.21 Hotel planning aside, we also need to enhance transport linkages with Mainland cities such as those in Guangdong and Shenzhen to capture the expanding tourism market in the Mainland. In this



regard, proposals for additional cross-boundary infrastructure projects should be examined also in the context of the growth potentials of the tourism industry. We also need to identify land requirements for the provision and expansion of inter-modal changing facilities, e.g. cross-boundary bus terminals, coach parks and ferry piers.

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6.11 Human Resources

- 6.11.1 Other than “hardware” planning, the quality of our human capital also has a direct bearing on Hong Kong’s economic competitiveness. We need to ensure an adequate workforce to sustain our economic growth, not only in size, but also of the right calibre.
- 6.11.2 Our analysis on population growth trends indicates that Hong Kong’s working population will continue to expand in the next 10 years or so. However, with persistently low birth rates and the ageing phenomenon, our workforce will begin to shrink from the latter half of the next decade onwards. To ensure we have adequate and suitable human resources in the long term, there may need to be further refinement in the population policy, for example, encouraging higher participation of female/older workers in the workforce, facilitating further importation of talent etc. This issue will be further discussed in Chapter 7.

Section II Planning Vision and Future Challenges

Chapter 7: Population Dynamics

Section II

Planning Vision and Future Challenges



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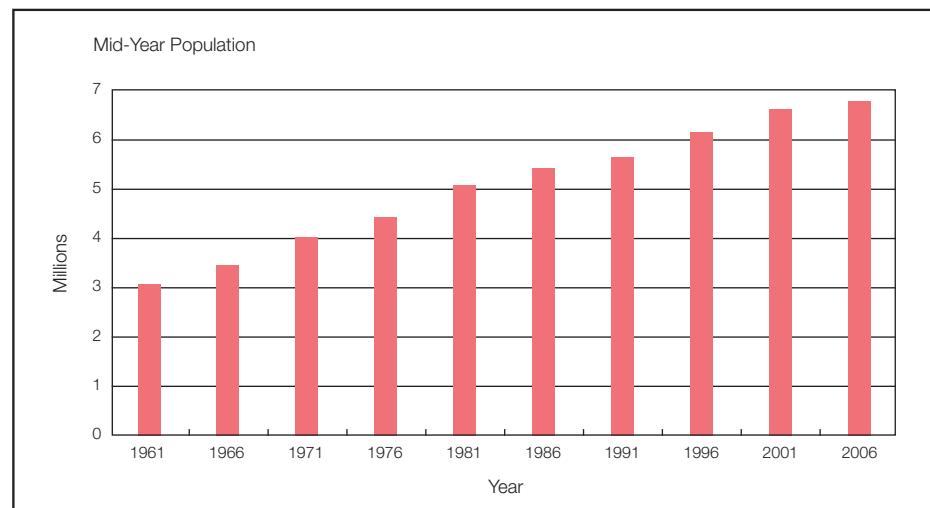
“Governments need to be able to gather information about, track and analyse population trends in order to create and manage sound policies and generate the political will to appropriately address both current and future needs.”

— United Nations Population Fund

7.1 Historical Perspective

- 7.1.1 Hong Kong's population has grown by some 3.8 million since 1961, at a rate of about a million a decade, i.e. about 1.9% a year (**Figure 7.1**). Our population reached 6,864,000 at July 2006 according to the 2006 Population By-census. During 2001-2006, population continued to slow down with an average annual growth rate of 0.4%, as compared with 0.9% in 1996-2001.

Figure 7.1 Historical Trend of Population Growth



One-Way Permit Scheme

- 7.1.2 The population growth has largely been attributed to migration from the Mainland under the One-way Permit Scheme. This Scheme was introduced in 1983 and had been revised several times. Since 1 July 1995, the daily quota for new arrivals from the Mainland under

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the scheme has been 150 per day, or 54,750 per year. Between 1983 and 2006, over 970,200 Mainland persons were admitted under the scheme, equivalent to about 14.1% of Hong Kong's population in 2006.

Natural Growth

7.1.3



Migration from the Mainland aside, other growth factors have been insignificant. Our natural growth rates have been persistently low, with a marked decrease in fertility rate, albeit the continuous

decline in mortality rate over the past two decades. The total fertility rate has dropped from 3 children per woman in the 1970s to 0.984 (i.e. less than 1 child per woman) in 2006, which was well below the replacement level of 2.1 children per woman. On the other hand, life expectancy at birth for male and female residents in Hong Kong has increased from 68 and 75 to 80 and 86 respectively in the last 30 years. As a result, the ageing phenomenon has become more and more prominent. The number of persons aged 65 or above has risen from 5% in 1971 to the current 12.4%.

7.1.4

Concurrently, there is also an increasing proportion of live births born to Mainland mothers. In 2006, 26,132 (i.e. about 40%) of the 65,792 total live births were born to Mainland mothers. Many of these



babies have both parents being Chinese nationals but not Hong Kong residents and the growth in this category is rising rapidly. This means that the number of live births does not necessarily translate instantly into actual replenishment of the local population, as many of them are taken back to their parents' home in the Mainland soon after birth. However, if these children eventually choose to reside in Hong Kong, the demand for public facilities,

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especially schools, will increase. We should continue to monitor the trend in order to plan ahead for their needs.

Labour Force

- 7.1.5 Hong Kong's labour force stood at 3.6 million in mid-2006, representing 52% of the total population, and a labour force participation rate (LFPR) of 60.3%. The LFPR for male and female were 69% and 52% respectively. Nevertheless, while there has been a general rise in education attainment, some 50.2% of our population aged 15 and over have only gained lower secondary or below education standard. Strategic solutions are therefore essential to counter the effects of a shrinking labour force and the mismatch between the new economic structure and the labour force on our economic competitiveness.

Mobility

- 7.1.6 With the rise in social and economic interactions with the Mainland, our population does not only grow in number but in dynamism. Since 2001, Census and Statistics Department (C&SD) introduced a new classification known as "Mobile Resident" (MR), which is defined as "Hong Kong Permanent Residents who have stayed in Hong Kong for at least one month but less than three months during the six months before or for at least one month but less than three months during the six months after the reference time-point, regardless of whether they are in Hong Kong or not at the reference time-point." There were about 219,000 MRs in mid-2006.
- 7.1.7 However, despite the official definition and record of MRs, population mobility patterns are far more complex an issue to be represented only by these figures. For example, the concept of "resident" refers to a person's presence overnight, whereas this person may be spending his daytime at another location. Hence, a usual resident may reside in Hong Kong, but work outside Hong Kong during the day, while a non-usual-resident may reside outside Hong Kong, but maintains a job here.

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- 7.1.8 Another source of information to reflect population mobility is the trend on cross-boundary trips. In 2006, some 160 million cross-boundary trips were recorded, representing a daily average of over 0.44 million trips. Trends on trip purposes and destinations have been identified in the Cross-Boundary Travel Surveys conducted regularly by the Planning Department, which indicate a rising proportion of cross-boundary trips made for business and work purposes. For example, the Survey of 2006 shows an increase of 100% in trips for work purpose over the record of 2001. Many of these trips were made on a daily basis, thus implying that whilst Hong Kong's total population may stand at almost 7 million, a good proportion of our residents may not be in Hong Kong during the day.
- 7.1.9 According to a survey undertaken by C&SD¹, about 240,000 Hong Kong residents were working in the Mainland in 2005, rising almost four times from 64,200 in 1992. Many of these workers are also daily cross-boundary commuters. From another survey conducted by C&SD², about 472,900 Hong Kong residents were residing³ in the Mainland, and about 65% of them were economically active.
- 7.1.10 There is also another category not counted as part of our resident population, but, collectively, may have a significant impact on the planning for land use and infrastructure. These are the so-called “transient population”, which include visitors to Hong Kong and those who live here only on a short-term basis (e.g. students studying abroad, retirees normally living outside Hong Kong). We need to ensure that the needs of this category of our population would not be overlooked.

7.2 Looking Ahead

- 7.2.1 In order to secure and nurture a population that would sustain Hong Kong's development as a knowledge-based economy and a

¹ C&SD (2005) *Social Data Collected Via the General Household Survey Special Topics Report No.42 - Hong Kong Residents Working in the Mainland of China*.

² C&SD (2005) *Thematic Household Survey Report No. 22 – Characteristics of Hong Kong Residents Having Resided/Having Stayed Substantially in the Mainland* and C&SD (2007) *Feature Article – Enhanced Method for Compiling Statistics on Hong Kong Residents Having Resided/Having Stayed Substantially in the Mainland*.

³ It refers to the number of Hong Kong residents who have resided/ have stayed much of their time in the Mainland, viz. for a period of at least one month in the past six months before the reference time-point of the survey.

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world-class city, Government has implemented a number of policy initiatives since 2003. These include the Admission Scheme for Mainland Talents and Professionals introduced in July 2003, under which professionals and talented people from overseas and the Mainland

who possess special skills, knowledge or experience of value to and not readily available in Hong Kong, or who are in a position to make substantial contribution to the economy, may apply to work here. Under the Quality Migrant Admission Scheme introduced in June 2006, talented people from the Mainland and overseas who meet specified eligibility criteria may be admitted without the requirement of securing an offer of local employment beforehand.

- 7.2.2 Following the implementation of these admission schemes, there would be more skilled and professional persons, as well as academics and researchers, admitted to Hong Kong as migrants. Their admission could not only help to improve the quality of our human capital, but (as they are generally in their prime age) to slow down the rate of population ageing and perhaps also raise the overall fertility level.
- 7.2.3 Other than the admission of workers, the opening up of investment migration could also boost the number of incomers. Policies relating to childbirth could have an effect of slowing down the drop in fertility, although the extent of effect is not expected to be significant.

Slowing Population Growth

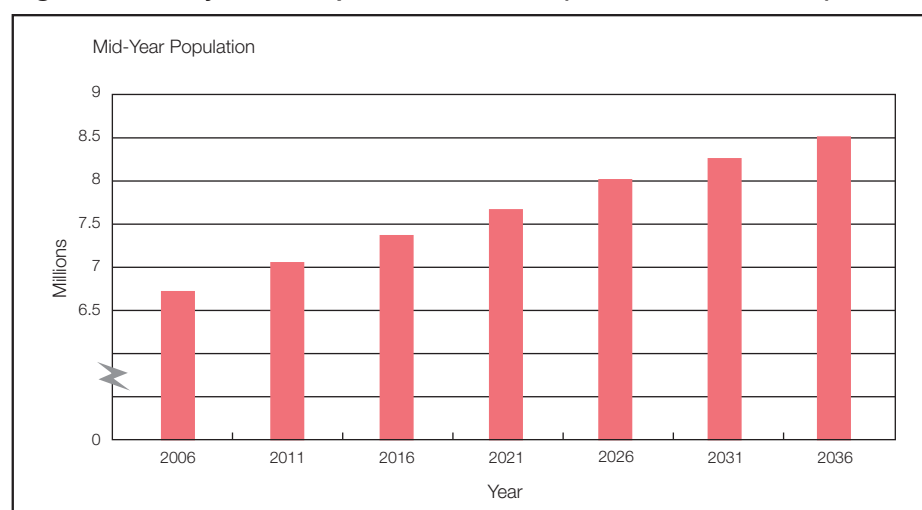
- 7.2.4 Despite the continuous growth, which is sustained mainly by Mainland migrants, this growth is expected to slow down substantially, with a projected average annual rate of about 0.7%, as compared to the 1.9% in the past few decades. The “levelling-out” trend in population growth is common in many developed cities of the western world.

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- 7.2.5 The C&SD estimates that Hong Kong's population will reach 8.6 million by 2036 (**Figure 7.2**), representing an increase of about 25% over that of 2006.
- 7.2.6 Significant population growth in the past few decades has been taxing us, especially in providing enough land for housing development, and our efforts have mainly been channelled towards meeting the required quantum. A lower population growth in future will allow for a shift in our planning strategy from a primary concern on quantity provision to more focused attention on improving the quality of our living environment.

Figure 7.2 Projected Population Growth (C&SD, 2006-based)



Shrinking Household Size

- 7.2.7 A significant trend is the shrinking household size. In 1981, households with five or more members were the norm (37% of total). However, since 2004, two-person households have taken dominance. By 2033⁴, two-person households will take up some 35% of the total, with the average household size decreasing from 3.0 in 2006 to 2.6 in 2033.

⁴ The household projection up to 2036 is being compiled.

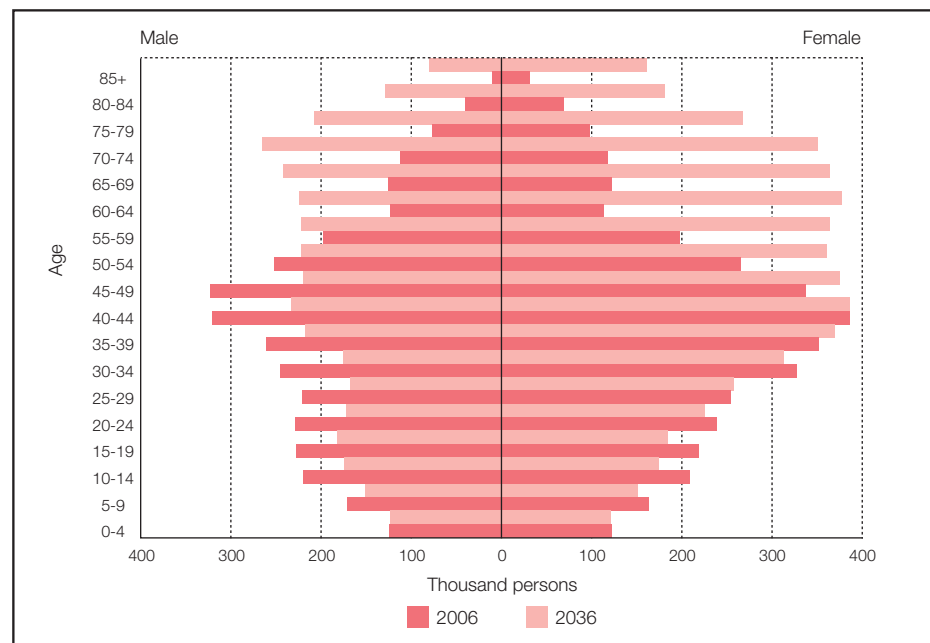
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- 7.2.8 In absolute terms, the number of domestic households is projected to increase from 2.2 million in 2006 to 3.1 million in 2033, representing an average annual growth rate of 1.3%, which is much faster than the growth of population (around 0.7% per annum).
- 7.2.9 Smaller household size coupled with a general increase in flat size, in both public and private sector housing, over the years has enhanced our per capita enjoyment of living space. Further decrease in household size may reduce the demand for larger units. Moreover, the choice of living location of newly formed households, most of which will remain as two-person core families, may be increasingly dictated by such factors as place of work rather than, say, school catchment.

Ageing Population

- 7.2.10 With low birth rates and longer life expectancy, the median age of Hong Kong's population will rise from 39.6 in 2006 to 46.1 in 2036. The elderly population will reach 26% of the total population in 2036 (Figure 7.3).

Figure 7.3 Trend of Ageing Population

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- 7.2.11 There is an increasing demand in the provision of specially designed and quality housing units for the elderly. Though the Housing Authority and the Housing Society are now the main providers of elderly housing, the private sector could also take part in the provision of such housing units to satisfy the demand of the higher-income elderly households.
- 7.2.12 Other than the buildings per se, consideration should also be focused on the public realm. Elderly persons tend to be less mobile and have a more restricted activity sphere. The design of local environment and the provision of facilities should cater for their special needs.

Shrinking Labour Force

- 7.2.13 Based on the age-sex profile of Hong Kong's projected population as well as the anticipated labour force participation rates, the size of our working population is expected to continue to increase slowly up to around 2010, but will be flattened out in the following decade and then decrease gradually thereafter due to the ageing phenomenon (**Figure 7.4**).

Figure 7.4 Projected Working Population (C&SD)



- 7.2.14 A shrinking labour force in the economy implies a growing dependency ratio which would put our social services under strain. Attention is needed to enhance the capacity of the labour force and unleash hidden human capital in our society so as to maintain

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a healthy level of economic growth and avoid the problem of employment mismatch. Issues on importation of talent, training for local residents, incentives to encourage more participation of female and older workers etc. may require greater attention.

Increasing Population Mobility

- 7.2.15 Given the intensification of the socio-economic integration between Hong Kong and the Mainland, the portion of Hong Kong residents having strong Mainland ties will further increase. It is estimated that the number of MRs will increase substantially in the next 30 years, reaching 426,300 in 2036, or 5% of the total population. We also estimate that the annual cross-boundary passenger trips may increase from some 160 million in 2006 to well in excess of 500 million in 2030.
- 7.2.16 The increase in mobility has a direct impact on the cross-boundary infrastructure and the housing land requirements in Hong Kong, not only in terms of absolute quantity, but also in terms of flat size and location.
- 7.2.17 For instance, the rising trend of Hong Kong people moving to the Mainland or buying a second home in the Mainland may shift the emphasis of some people when considering acquiring property in Hong Kong from the consideration of having ample living space to a focus on convenience. We should be more sensitive to the users' choice of location and further enhance convenience and accessibility in our future strategy.
- 7.2.18 The rising trend for moving to the Mainland will increase uncertainty in planning for public facilities and services. While the total population will fall because of their relocation, which will theoretically lower the demand of those population-based facilities (such as the number of hospital beds), these people are at any time eligible to return to Hong Kong to claim their entitlement for public services.

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Imposing a Population Cap?

- 7.2.19 During our public consultation, some members of the community suggested that, in view of the resources constraints, Hong Kong should have a policy to control the quantity and quality of population.
- 7.2.20 While this may be a lucid proposition, it is very difficult, if not impossible, to establish a population limit. Population capacity is affected by the interplay of many factors, including the amount of resources the community is prepared to afford, and how well our development is managed. Examples elsewhere show that smaller populations do not necessarily imply more sustainable development if the populations are spread across more extensive geographical areas. It would therefore not be too meaningful to determine a limit for Hong Kong's population. However, several population scenarios have been established for testing purpose under this Study in order to assess the implications of faster or slower population growth trends.

Section II Planning Vision and Future Challenges

Chapter 8: Defining Our Needs

Section II

Planning Vision and Future Challenges



Defining Our Needs

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“Necessity never made a good bargain.”

— Benjamin Franklin

8.1 Reference Scenario

- 8.1.1 The Reference Scenario describes the circumstances under which we formulate our planning strategy. It attempts to translate our long-term vision for Hong Kong into a set of working assumptions and define some of our social, environmental and economic needs in more concrete and, where possible, quantitative terms. It highlights those factors which need to be taken on board in the consideration of a most appropriate spatial development pattern for Hong Kong and in conducting various impact assessments on this pattern.
- 8.1.2 In the previous chapter, it has been noted that C&SD makes official population projections from time to time. However, these projections have largely been made on the basis of past trends and prevailing policies, although they are updated regularly to reflect latest changes. For the purpose of long-term planning, we need to be more anticipatory of changes and pro-active in defining our future. Nevertheless, owing to the complexity of issues, resultant scenarios could be numerous. We need to define a Reference Scenario which is not only what we aspire to, but one that is plausible and achievable. On the other hand, in view of the high level of uncertainty about the future, the assumptions adopted could only be regarded as our “best guess” at this stage.

8.2 Population and Employment Assumptions

- 8.2.1 The population and employment assumptions of the Reference Scenario are as follows:
- Population will continue to grow albeit at a slower rate of about 0.7% per annum, mainly due to migration from the Mainland. The ageing phenomenon will become more prominent due to

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Defining Our Needs

persistently low birth rates and longer life expectancy. These assumptions are similar to those of the official projections prepared by C&SD.

- In line with our vision for growth towards a knowledge-based economy, we have assumed a higher intake of talent/skilled workers and investors in the long term (about 10,000 per annum from 2021 onwards, on top of that assumed under the official projections¹);
- A steady rate of economic growth (annual GDP growth at 4.0% initially and gradually falling to 3.0%) is assumed, with faster growth in key industries;
- Employment (jobs required) will increase at about 0.6% to 1.2% per annum to support the economic growth;
- Higher worker participation rates in older/female age groups would be likely, reflecting a more flexible work life, deferred retirement, as well as the increase in women workers who will be more ready to join or remain in the workforce.

8.2.2 Under these assumptions, the resultant population and employment are shown in the table below:

	Base Year ²	2010	2020	2030
Resident Population	6.8	7.2	7.8	8.4
Working Population [#]	3.2	3.6	3.8	3.9
Employment	3.0	3.5	3.7	4.0

(million)

[#] Referring to workers who are also Hong Kong Residents. It is assumed that some of the surplus jobs by 2030 will be filled by cross-boundary commuting workers.

¹ It is assumed that each year, around 20,000 to 25,000 professionals will come to Hong Kong under the General Employment Policy and the Admission Scheme for Mainland Talent and Professionals.

² As the data was largely compiled in 2005 when information on 2004 was not fully available, the Base Year has been taken to be 2003 for the sake of consistency. This applies to all references to the Base Year in this report.

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8.3 Housing Land Requirement

- 8.3.1 To meet the needs of a growing population, one of the objectives of the HK2030 Study is to ensure timely provision of adequate land and infrastructure for the development of housing and community facilities. An assessment of the future housing demand is therefore needed to serve as a basis for the formulation of our planning strategy.
- 8.3.2 It is generally accepted that housing demand is governed by such factors as economic performance, affordability and investment incentives. However, for the purpose of assessing long-term housing demand, we can assume that every household would be adequately housed, and therefore the total housing requirement would be broadly in line with household formation.
- 8.3.3 In the period between the Base Year and 2030, a total housing requirement of about 924,000 units (averaging about 34,000 per year) is assumed.

	Base Year	2010	2020	2030
Housing Stock	2,394	2,642	2,948	3,319
Accumulative Requirement	-	248	553	924

(thousand units)

8.4 Economic Land Requirement

- 8.4.1 To ensure economic growth in the long run, a flexible land provision mechanism would be the key. Therefore a new and simplified land use typology has been developed to allow flexibility in the assessment of future land requirements, corresponding with the characteristics of modern economic activities.
- 8.4.2 This new land use typology re-categorises market-driven “employment use” land into three broad categories: (i) CBD Grade A Offices, (ii) General Business and (iii) Special Industries.

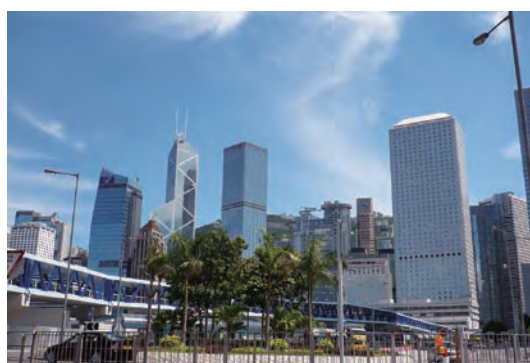
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- 8.4.3 An econometric model was established to assess future floorspace demand for these market-driven employment uses. It takes into account the floorspace demand of individual economic uses as well as a number of “independent variables” including Hong Kong and Guangdong’s GDP growth, as well as Hong Kong’s population and employment parameters.
- 8.4.4 The model has assumed that Hong Kong will continue with its restructuring of the industrial and service sectors while embarking on a much closer economic relationship with the Mainland. A higher level of productivity and enhancement in worker skills have also been assumed.
- 8.4.5 It is projected that the total employment-related floorspace demand up to 2030 will be around 10.5 million m² in GFA. Taking into account the existing surplus stock and the need to accommodate a “natural vacancy”³, the total requirement will amount to about 11.0 million m² in GFA.

CBD Grade A Offices

8.4.6



“CBD Grade A Office” has been identified for separate reservation because of the particular requirements of location and quality of premises, as well as the value and status associated with high-value-added business activities. It is

difficult to delineate the CBD, but for the purpose of calculation and presentation of data in this study, the key office districts of Central, Wan Chai, Causeway Bay, Sheung Wan and Tsim Sha Tsui are taken as the CBD.

³ “Natural Vacancy” refers to a level of vacancy that is normally present in the property market. While the level would constantly vary, a 10% rate has been assumed here, based on the average vacancy level for Grade A offices located at Core Districts in the period between 1999 and 2003, as recorded by the Ratings and Valuation Department.

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- 8.4.7 During the past decade, Grade A offices in the CBD took up about 8.6% to 10.3% of total floorspace demand. Considering the effects of economic restructuring, CBD Grade A offices are estimated to take up approximately 13% of all employment floorspace by 2030.

General Business Uses

- 8.4.8 “General Business” land use covers private offices (excluding CBD Grade A offices), industrial/office uses, flatted factories and private storages. According to an earlier user survey⁴, some 80% of the floorspace of the private offices and the industrial/office uses are occupied by three types of commercial activities, with import/export and wholesale trade being the highest floorspace occupier of both private offices and multi-storey factory buildings.
- 8.4.9 While conventional manufacturing uses are expected to continue to decline, the implementation of CEPA may result in a slightly slower rate of decline. On the other hand, continued growth in the trade and logistics sector, as well as services and businesses which are less location-bound, will help maintain a substantial demand for general business accommodation. It is estimated that general business uses will take up approximately 74% of all employment floorspace by 2030.

Special Industries

- 8.4.10 “Special Industries” refer to land uses with particular accommodation requirements. This kind of land use will not necessarily be polluting but may require sites suitable for capital and/or technology intensive industrial operations which may have special infrastructural and/or locational requirements, and/or where special treatment, security, or other measures have to be taken. For this reason, it would be appropriate to delineate distinct zones for such uses to separate them from other uses. The layout of such special industrial zones would also need to be flexible enough to accommodate building designs tailor-made for different users.

⁴ Planning Department (2005) “Commercial and Industrial Floorspace Utilisation Survey”

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- 8.4.11 We believe that Hong Kong will maintain as an administrative base for much of the manufacturing activities in the Pearl River Delta and would benefit through undertaking other high-value-added tasks in the supply chain, such as research and development (R&D), logistics management and even some of the production processes. Moreover, demand for such space may also grow out of developing expertise in new industries, such as information technology, biotechnological as well as green industries.
- 8.4.12 Although special industries may still contribute only a minor portion of Hong Kong's economy, in terms of floorspace demand, they could consume a significant share. It is estimated that special industries will take up approximately 13% of all employment floorspace by 2030.
- 8.4.13 The following table provides a summary of the assumed floorspace demand and requirements for the three land use categories:

	Base Year	2010	2020	2030	Demand 2003-2030	Requirement ⁵ 2003-2030
CBD Grade A Offices	4.1 (10%)	5.1 (11%)	5.8 (12%)	6.7 (13%)	2.6	2.7
General Business	33.0 (80%)	35.5 (77%)	36.2 (76%)	38.2 (74%)	5.2	5.4
Special Industries	4.0 (10%)	5.5 (12%)	6.0 (13%)	6.7 (13%)	2.7	2.9
Total	41.1 (100%)	46.2 (100%)	47.9 (100%)	51.6 (100%)	10.5	11.0

(GFA in million m²)

8.5 Policy-Influenced Land Uses and Infrastructure

Port

- 8.5.1 According to the Study on Hong Kong Port – Master Plan 2020 (HKP2020 Study), growth prospects of our cargo source are favourable, but we need to ensure strategic measures are taken to

⁵ The floorspace **requirement** takes into account the existing surplus stock and the need to accommodate a "natural vacancy" factor.

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capture market share of the direct cargo segments. With successful implementation of the recommended port strategy, our total ocean container throughput could increase from 13.9 million TEUs in 2002 to 31.8 million TEUs in 2020 (preferred forecast scenario under the HKP2020 Study).

- 8.5.2 The maximum capacity of the existing container port (container terminals 1 to 9) is around 18.6 million TEUs, with a potential to increase by another 1.7 million TEUs, and possibly more if additional land and other productivity measures are introduced. If the projected demand is realised, there is likely to be a need for a new container terminal (CT 10) in the first half of the next decade. Our assumptions for future cargo throughput and terminal capacities are shown in the following table.

	Base Year	2010	2020	2030
Cargo Throughput	12.8	18.0	28.8	34.5
Terminal Capacity				
CT 1-8, CT 9 (part)	13.1	-	-	-
CT 1-9	-	19.8	21.7	23.0
CT 10	-	-	7.2	11.6
Total	13.1	19.8	28.8	34.6

(million TEUs)

Source: HKP2020 Study

- 8.5.3 Another important aspect of the recommended port strategy which may have implications for the HK2030 Study is the demand for port back-up (PBU) land. The HKP2020 Study predicts that the total demand for PBU land will increase with port throughput, but the trend for these uses to move over the boundary nearer the cargo centres in the PRD is expected to continue. Moreover, changes to cross-boundary trucking and/or the location of empty depots could have a marked impact upon the amount of PBU land needed in Hong Kong.
- 8.5.4 PBU operations traditionally occupy sites that are easily accessible and low cost. They are currently concentrated in former agricultural areas in the New Territories with the use primarily organised on

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the basis of private contractual arrangements between individual landowners and operators. The supply of PBU land (estimated to be about 378 ha in 2003) includes those sites which are zoned for such purpose, those operating with temporary planning approval and/or under short-term tenancies and those which existed before planning controls came into force.

- 8.5.5 Additional supply of PBU land includes facilities within the river trade terminal in Tuen Mun, sites provided near CT 9 and sites zoned for PBU use but not yet taken up. Moreover, the HKP2020 Study also recommends that the development of CT 10, if it is to proceed, should include at its vicinity PBU land at a ratio of 10 ha per berth. Concurrently, some of the existing short-term users are expected to fade out gradually, especially with the introduction of new customs policy in the Mainland.

	Base Year	2010	2020	2030
PBU Land				
Demand	260	204	309	398
Supply	378	439	480	500

(cumulative) (hectares)

Source: HKP2020 Study and Planning Department's estimation

Airport

- 8.5.6 In 2006, the Hong Kong International Airport (HKIA) at Chek Lap Kok served 44.5 million passengers and handled 3.58 million tonnes of cargo. AA published in December 2006 an update of the Airport Master Plan (known as the HKIA 2025) to guide future development of the HKIA up to 2025. It has projected that by 2025, HKIA will serve 80 million passengers, handle 8 million tonnes of cargo and 490,000 aircraft movements each year.



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- 8.5.7 For the purpose of assessing future airport related traffic, the preliminary forecasts on air passenger and cargo which exclude transfer/transit passengers and transshipment cargo (detailed in table below) have been adopted.

	Base Year	2010	2020	2030
Daily Air Passengers	63,900	99,100	124,200	156,500
Daily Cargo (tonnes)	6,300	11,500	15,800	21,200

Note: The above assumptions for the Reference Scenario have been developed by the Planning Department based on discussions with the Airport Authority, and are used in the preliminary assessment of vehicular flows on major roads of this Study only.

Strategic Transport Infrastructure

Major Transport Infrastructure Assumed

- 8.5.8 In the immediate period before 2010, major committed transport networks including the Deep Bay Link, Shenzhen Western Corridor and Lok Ma Chau Spur Line will all be in place. However, traffic congestion at some strategic roads such as Gloucester Road/Harcourt Road/Connaught Road Central at the north shore of the Hong Kong Island, Gascoigne Road Flyover/Chatham Road along the east-west corridor across central Kowloon will remain. To relieve the problem, new strategic infrastructure like the Central-Wanchai Bypass and the Central Kowloon Route as well as the widening of the Gascoigne Road Flyover should be implemented as early as possible.
- 8.5.9 For the period between 2011 and 2020, we have assumed completion of the Hong Kong-Zhuhai-Macao Bridge and its connector road to the North Lantau Highway, the Guangzhou-Shenzhen-Hong Kong Express Rail Link, the Northern Link, the Shatin to Central Link and the West Island Line. Assessment has been made to identify capacity problems at major corridors during this period as well as the period between 2021 and 2030, and new infrastructure has been proposed to address the problems.

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Vehicle Fleet Assumed

- 8.5.10 We will expect continuous growth in both private and goods vehicles. However, while the growth in goods vehicle is assumed to remain quite constant at about 0.5% per year, the growth in private cars, as seen in historical trends, is expected to further slow down from the current level of about 2.5% per year to about 1.0% in the longer term. Nevertheless from past experience, the growth in fleet size could depend very much on the economic growth as well as changes in fiscal measures. The actual vehicle growth will therefore need to be monitored continuously in the future.

	Base Year	2010	2020	2030
Private Vehicles[#]				
Fleet size	367,700	431,600	518,500	575,400
Average annual growth		2.5% up to 2011	2.0% up to 2016 1.5% up to 2021	1.0% up to 2030
Goods Vehicles				
Fleet size	110,000	113,600	119,400	125,600
Average annual growth		0.5%		

[#] Including private cars and motor cycles



Section III Planning Choices

Chapter 9: Deriving Planning Choices

Section III

Planning Choices

Deriving Planning Choices

9

“Two types of choices seem to me to have been crucial in tipping [past societies’] outcomes towards success or failure: long-term planning, and willingness to reconsider core values. On reflection, we can also recognise the crucial role of these same two choices for the outcomes of our individual lives.”

— Jared Diamond

9.1 The Importance of Choice

- 9.1.1 In Chapter 4, we note that planning for diversity to provide choice is an important facet of a quality living environment. Nevertheless, often we have to make a decision on development, which calls for a directional choice for the whole city, rather than making a personal choice of lifestyle from a selection. As our society demands a greater say in the development process, being able to express our preference would be all the more important.
- 9.1.2 Making a personal choice may already be quite hectic sometimes. Making a collective choice on development options would hence be a colossal task, as individuals of the community could have extremely different priorities, likes and dislikes. This calls for a process that can effectively help us strike a reasonable balance amongst conflicting objectives.

9.2 Collective Thinking Process

- 9.2.1 In the light of the above, the HK2030 Study emphasises a collective thinking process both within Government and among stakeholders of the community. Within Government, we have a role of ensuring cohesiveness of different policies as reflected in our planning strategy. At the same time, this planning strategy needs to be owned by those people it is meant for – citizens of Hong Kong. To achieve this, we must expend our best effort in seeking their views in the strategy formulation process. This means involving stakeholders early enough for their input to be effective, letting people air their concerns openly

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and providing adequate information for them to take a view. For this reason, under the HK2030 Study, wide-ranging and multi-form public consultations have been conducted throughout the study process.

9.3 What Choices?

- 9.3.1 Many aspects of our spatial development pattern, including the supply of housing land and land for various economic activities, could involve a choice. On the other hand, there are a number of planning components that are being taken care of outside the HK2030 Study, e.g. environmental and tourism infrastructure. These will be integrated into the Preferred Development Option as “**predetermined**”, as described in Chapter 11. We could assume that choice-selection processes have already been undertaken for these predetermined.
- 9.3.2 Elements involving a choice under the HK2030 Study include locations for various major land uses (housing, office, general businesses and special industries) as well as the development form, including development densities. But more importantly, we need to decide on the overall approach to land development and establish, or re-establish, the role of government in the whole development process, as further explained in section 9.5 below.
- 9.3.3 While making choices for ourselves is important, equally significant is whether we are leaving our future generations adequate choices about how they are going to live. This is the essence of sustainable development, and must be factored into the decision-making processes.

9.4 “Development” versus “Non-Development”

9.4.1



For many years, there has been a strong belief that a city’s growth is driven by development of land and infrastructure. Underpinning this is the idea that “development” is a direct companion to such sought-after objects as “progress” and “prosperity”.

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- 9.4.2 This idea is, however, challenged by modern theories of development now advocated in many parts of the world. For example, in North America, smart growth concepts have prompted restraints on unchecked urban expansions. This is echoed in many European countries where sustainable development principles are enthusiastically espoused.
- 9.4.3 At the other extreme, total non-development could signify a miserable state of stagnancy and even retraction. Moreover, if non-development would lead to supply lagging behind demand, especially in housing and employment land, it could cause periods of tension or unwanted spurs in the property market. It seems that a more reasonable approach would be to manage growth – making more use of brownfield land, coupled with a confined level of expansion onto greenfield land, and adopting a good monitoring system to track actual market demand and supply. A critical factor is therefore the timing of development, and whether (and if so how) Government should intervene in the process, either directly as a landowner or indirectly as the approving authority for development.

9.5 Timing of Development and Role of Government

- 9.5.1 Ensuring timely and adequate land supply in different economic and social sectors is key to providing a quality living and economic environment. As concerns the timing of development, several choices are open



- developing way ahead of anticipated demand (i.e. **land-banking**); slightly ahead of demand; upon demand or behind demand.
- 9.5.2 At present, the land formation process, from study to implementation of associated infrastructure, normally takes about 10 to 15 years to complete. Creating a land bank could therefore help to ensure that there will be no delay in the delivery of land to meet requirements. However, there is a concern on whether the huge investment on land development has been made with full economic justifications

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and (when that land is available and sitting idle) whether the land would be allocated fairly and in accordance with market needs. We therefore need to strike a careful balance between the pros and cons of the concept and to confine its application only to certain uses, for example, special industries which are land extensive and the demand for which is less predictable.

- 9.5.3 For the majority of our developments, instigating implementation too early would perhaps be unwarranted. Where the demand has not emerged fully, providing infrastructure ahead of time would give rise to under-utilisation of public resources (and it is often difficult to quantify such costs and losses to Government). Moreover, the uncertainty over public demand may give rise to over-provision of infrastructure. The national Eleventh Five-Year Plan advocates development moderately ahead of actual demand in order to avoid a shortfall situation. This could be relevant to large-scale infrastructure projects such as major highways and utilities.
- 9.5.4 For other land uses serving local and relatively predictable demand such as housing or office uses, the private sector still has a positive role in meeting their demand. The Government's role, in line with its "Big Market, Small Government" notion, would be to assess the demand, plan ahead for their locations, put in place the infrastructure, monitor the demand/supply situations, while leaving the actual delivery of the product to market forces. If our market works well, we could expect provision to be exactly on time, or just slightly behind demand.
- 9.5.5 The timing of development, therefore, is determined by the extent we can bear with the risk of lagging behind. For example, belated construction of a piece of road infrastructure could end up in acute traffic problems. For housing and employment related uses, supply lagging behind demand may lead to, as noted earlier, scaling of property prices. Where provision of economic infrastructure falls short of demand, we could also run the risk of being out-competed by our competitors. These are important factors for consideration in making our choice.

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9.6 Options for Various Land Uses

- 9.6.1 In deriving different development alternatives, we can first take a “component approach” and look at the options available for various land uses. In proceeding with the coarse-screening of options, we have started by ruling out the “no-go” areas as described in **Annex III**. The potential options for each major type of land uses are then presented in **Table 9.1** below.

**Table 9.1 Broad Assessment of Available Choices for Different Land Uses**

Housing	
(A)	Optimisation of Existing Development Areas
	(i) <i>Redevelopment</i>
	<ul style="list-style-type: none"> • Market-led, low cost to Government and involve the least intervention • Opportunities reduced as tenement blocks deplete • Marginal gain in floor area affects viability, and therefore incentive for redevelopment • Usually small-scale – less chance for comprehensive re-planning
	(ii) <i>Relaxation of Plot Ratio</i>
	<ul style="list-style-type: none"> • Enhance viability of projects • Reduce need to deploy new land for development • Depend on infrastructure capacity and adequacy of community facilities, as well as other factors such as visual impact, impact on air circulation etc.
	(iii) <i>Rezoning and Infilling</i>
	<ul style="list-style-type: none"> • Reduce need to deploy new land for development • Primarily involve “Industrial” zones as a result of economic restructuring, as well as sites of obsolete “Government, Institution or Community” facilities • Depend on infrastructure capacity, urban design concerns and, where applicable, resolution of any residential/ industrial interface problem • Market-driven process preferred over Government-initiated resumption

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(B) Identifying New Supply
(i) <i>Kai Tak</i>
<ul style="list-style-type: none"> • Kai Tak Review recently completed • Assume a medium density for residential developments given its harbourfront location • Also include a mixture of other land uses, including cruise terminal and multipurpose sports stadium • Further detailed environmental and engineering feasibility studies are being undertaken
(ii) <i>Northern New Territories</i>
<ul style="list-style-type: none"> • A number of New Development Areas (NDAs) were identified in previous studies • Allow comprehensive/cohesive planning • Involve extensive land resumption and engineering works – long development lead time • Further detailed environmental assessments and studies needed
(iii) <i>Other Parts of Rural New Territories</i>
<ul style="list-style-type: none"> • Difficult to identify large pieces of flat land for development without extensive engineering works • May conflict with areas of significant ecological and landscape values
(iv) <i>Reclamation</i>
<ul style="list-style-type: none"> • Government committed that there would be no new reclamation planned in Victoria Harbour • Reclamation outside central harbour should also be avoided as far as possible but could be considered given sufficient justifications
Central Business District Grade A Offices
(A) Consolidation of the Existing CBD
<ul style="list-style-type: none"> • Achieve agglomeration economies which are essential for office uses located in the CBD • Take the form of in-fill developments, including the remaining portions of existing reclamation (e.g. West Kowloon) and vacated Government sites • Need to resolve issues such as urban design, traffic impacts and reprovisioning of existing uses

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(B)	Promoting Decentralisation
	<ul style="list-style-type: none"> • May not be able to totally replace the functions of the existing CBD • Need to achieve a critical mass and provide territorial transport network in order to create a new office node • Opportunity includes the former Kai Tak Airport where a new office node is planned
General Business	
(A)	Redevelopment
	<ul style="list-style-type: none"> • Primarily supplied through the unrealised development potential arising from the redevelopment of existing industrial areas • A lesser scale of decentralisation of employment opportunities, but jobs are still not brought close enough to places of residence in the New Territories
(B)	New Business Zones in NDAs
	<ul style="list-style-type: none"> • Difficult to encourage businesses to decentralise to the New Territories • Difficult to assemble a critical mass
(C)	The Closed Area
	<ul style="list-style-type: none"> • Need to resolve a number of development constraints, e.g. hilly terrain, lack of infrastructure, sites of ecological and conservation values, traditional villages and burial grounds, contaminated mud • Strategic environmental study needed to examine environmental constraints and identify areas where development should be avoided • Three locations, i.e. Lok Ma Chau Loop, Kong Nga Po and Heung Yuen Wai, have been initially identified as having potential for special uses that warrant a boundary location

9.7 Choices for Development Densities

- 9.7.1 Hong Kong is a very compact and vertical city that gives rise to not just a psychological feeling of congestion, but also likely impacts on the temperature and airflows. According to the Hong Kong Observatory (HKO), the daily minimum temperature recorded at the HKO Headquarters had increased by 0.28° Celsius per decade over

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the period from 1947 to 2005. Much of this rise could be attributed to the retention of heat by concrete structures¹. The HKO also recorded a sustained decrease in wind speed at the King's Park meteorological station between 1968 and 2005. A relationship between urbanisation and the long-term temperature trend as well as stagnant airflows could be preliminarily established. This has already aroused increasing public concerns.

9.7.2 Some members of the community have laid blame on high development densities for these climatic phenomena. However, we should not for this reason overlook the many merits of high-density living, including more efficient use of land and infrastructure, less intrusion on land with conservation value, shorter journeys to work or school as well as less reliance on cars. On the other hand, while a low-density development form may require more land, we should also be aware of its merits. These include the offer of a better micro-climate, the provision of a more spacious living environment and better opportunities for incorporating urban design features.

9.7.3 While public comments received on the density issue are quite diverse, they generally indicate that we should adopt a flexible approach in managing the level of density in the Metro Area (i.e. the areas covering Hong Kong Island, Kowloon, Tsuen Wan, Kwai Chung and Tsing Yi) whilst adopting a generally lower density in the New Territories to provide an alternative choice of living. Many consider that building and urban design would be more significant than development density per se in generating a desirable living space. However, some members of the community do consider that there is a need for reduction of development intensity at certain locations within the congested urban areas.

Metro Area

9.7.4 Taking into consideration public views, different options for reducing the development densities in parts of the Metro Area have been considered:

¹ C.Y. Lam (2006) "On Climate Changes Brought About by Urban Living", paper presented at the PGBC Symposium 2006 on Urban Climate + Urban Greenery on 2 December 2006.

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- (a) applying appropriate development controls, including building bulk and height control on government sale sites, sites subject to lease modifications and “Government, Institution or Community” sites, especially those at unique locations, including areas with special urban design characteristics and functions;
- (b) reviewing whether and how the “net site” concept should be applied to large redevelopment sites in urban areas and continue to applying the concept in the planning for new development areas;
- (c) reviewing the current practice in granting concessionary floor areas;
- (d) adopting urban design and environmentally friendly guiding principles that can help reduce building congestion in planning layouts.

New Towns

9.7.5 In new towns, the plot ratios for residential developments were reviewed in the 1980s and subsequently increased from a maximum of 5.0 to 6.0 (e.g. Sha Tin and Tung Chung), 6.5 to 7.0 (e.g. Ma On Shan) and 8.0 (e.g. Tseung Kwan O).



9.7.6 However, the Tseung Kwan O experience has prompted a need to review plot ratios to take into account the resultant built form and townscape. This called for the lowering of development densities in the remaining undeveloped parts of new towns, which has already been done for Tseung Kwan O. However, in the process of reviewing the development density, (hence the housing quantum) we need to consider whether the infrastructure in place may be rendered under-utilised, or that a population threshold may not be reached for the provision of certain important facilities, e.g. rail stations, hospitals.

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New Development Areas (NDAs)

- 9.7.7 Having regard to past experience in the planning of new towns, the development intensity of future NDAs would need careful consideration. Balancing different factors, namely development pressure and efficient use of land resources and infrastructure on the one hand, and the resultant visual impacts and physical harmony on the other, one option is to apply a medium to high density form (plot ratio 5 to 6.5) at the core area/rail stations while leaving the rest of the NDAs at a fairly low density. Another option is to return to the level of intensity of first-generation new towns like Sha Tin with plot ratios not exceeding 5 throughout.
- 9.7.8 We have consulted the public during Stage 2 of the study on the issue of development intensity of NDAs. Many people expressed dissatisfaction with the intensive form of development like that of Tseung Kwan O but could accept a plot ratio of about 6.5. Some respondents urged that more attention should be given to the design, layout and connectivity of open spaces which would greatly affect the quality and character of the living environment.

9.8 Amalgamated Options for Comparison

- 9.8.1 Under Stage 3, two development options, namely the Consolidation and Decentralisation Options, were derived through combining land use options set out in paragraphs 9.6 and 9.7 above. A population assumption of 9.2 million by 2030 was adopted then, but this assumption has subsequently been revised to 8.4 million in Stage 4, taking into account the latest population trends and projections. Due to the revised population assumptions, many of the proposals contained under these two options are no longer valid. They are however presented here for the purpose of making a broad comparison of the concepts rather than of the details.

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Consolidation Option

- 9.8.2 This option assumes sites in the urban areas will be developed first and no NDAs in the New Territories will be completed before 2020. The provision of housing land to meet the medium-term demand will mainly be generated from developments at the former Kai Tak Airport, existing vacant or under-utilised sites, urban renewal schemes (assuming more redevelopment and less rehabilitation) and redevelopment of other existing buildings within the built-up areas.
- 9.8.3 To accommodate long-term housing needs, five NDAs respectively at Hung Shui Kiu, Kwu Tung North, Fanling North, Hung Shui Kiu North and Kam Tin/Au Tau will be required beyond 2020.
- 9.8.4 The provision of prime office and general business space will mainly be market-led. Part of the longer term requirement for high-grade offices will be met by on-going private-sector initiatives in the Central Business District and surrounding areas, as well as development of an office node at the former Kai Tak Airport.

Decentralisation Option

- 9.8.5 This option takes a different orientation and focuses on development of the New Territories in the initial stage. Three priority NDAs in Hung Shui Kiu, Kwu Tung North and Fanling North will be developed before 2020. Development/redevelopment in the Metro Area will proceed more slowly, spreading over a longer period. Urban renewal will focus on rehabilitation rather than redevelopment. Compared to the other option, the process of intensification in the Metro Area will be slower. Beyond 2020, four additional NDAs in Hung Shui Kiu North, Kwu Tung South, Kam Tin/Au Tau and San Tin/Ngau Tam Mei, will be implemented.

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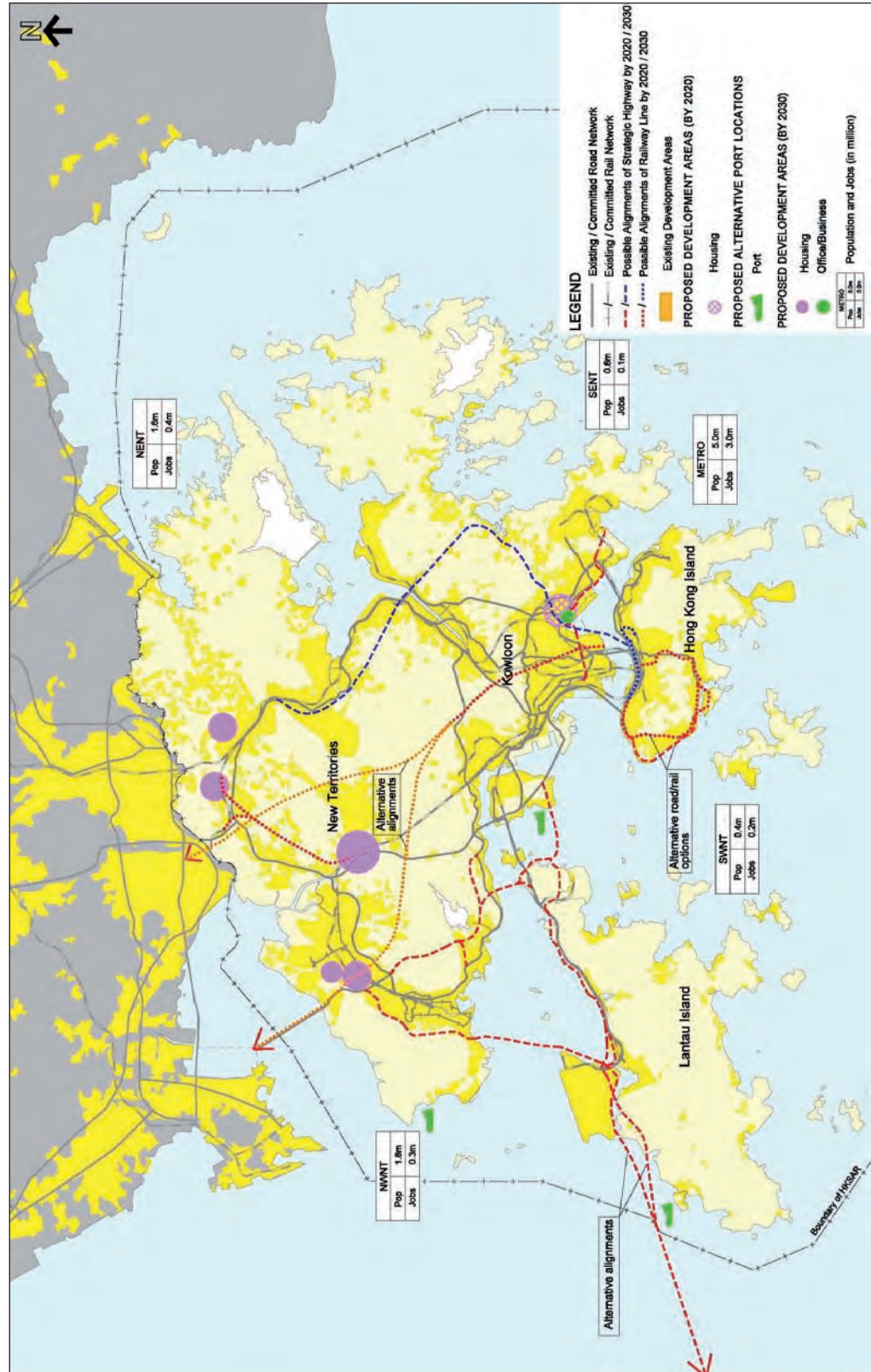
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- 9.8.6 As for employment related uses, this option assumes that a new secondary employment node in Hung Shui Kiu and special economic activities at the Lok Ma Chau Loop (subject to resolution of the environmental and related issues) will be in place in the short to medium term. The provision of high-grade offices will mainly be market-led, supplemented by the development of an office node at the former Kai Tak Airport before 2020.
- 9.8.7 **Table 9.2** below summarises the key elements of the two broad development patterns. The broad locations of the proposed developments are indicated on **Figures 9.1** and **9.2**.

Deriving Planning Choices

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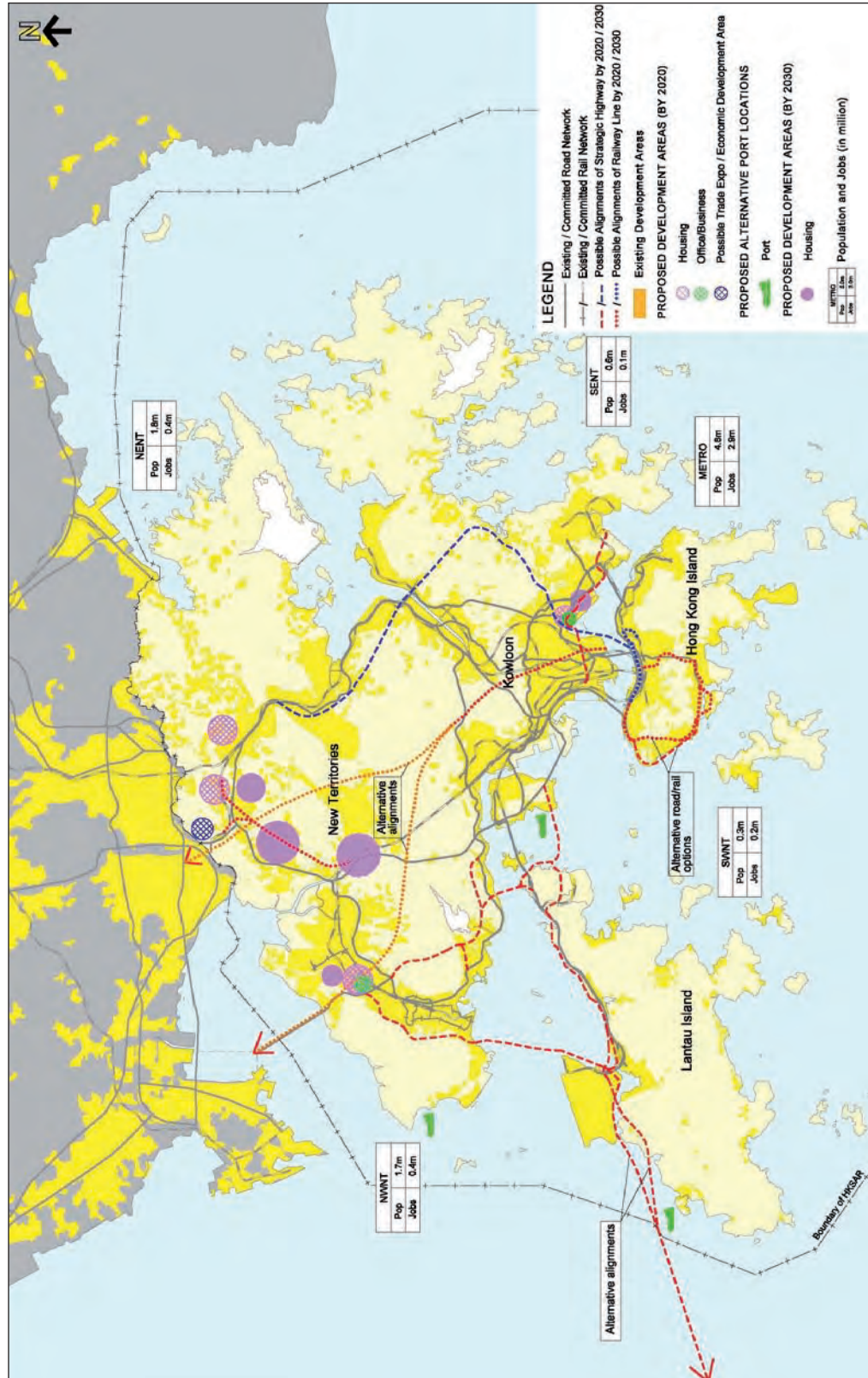
Figure 9.1 Consolidation Option



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Figure 9.2 Consolidation Option



Deriving Planning Choices

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Table 9.2 Key Components of Two Development Options

By 2020	Provision of Housing Land	
	Consolidation Option	Decentralisation Option
	<ul style="list-style-type: none"> former Kai Tak Airport (whole) urban renewal (more redevelopment, less rehabilitation) Government land in existing built-up areas no New Development Area (NDA) in the NT 	<ul style="list-style-type: none"> former Kai Tak Airport (partial) urban renewal (more rehabilitation, less redevelopment) Government land in existing built-up areas (fewer than in the other option) 3 NDAs: <ul style="list-style-type: none"> Fanling North Hung Shui Kiu Kwu Tung North
	Provision of Land for Office/ Business	
	<ul style="list-style-type: none"> existing and oncoming supply redevelopment/ conversion of existing industrial buildings 	<ul style="list-style-type: none"> mainly from existing and oncoming supply Premier office centre at the former Kai Tak Airport provision of land for office/ business uses in Hung Shui Kiu which will lead to a slower pace of redevelopment of old buildings Lok Ma Chau Loop to be developed for special economic activities (subject to resolution of the environmental and related issues)
	Cross-boundary Transport Infrastructure	
	<ul style="list-style-type: none"> Guangzhou-Shenzhen-Hong Kong Express Rail Link Hong Kong-Zhuhai-Macao Bridge 	

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By 2020	Domestic Transport Infrastructure	
	<ul style="list-style-type: none"> • Either South Hong Kong Island Line (rail) or Route 7 (road) • West Hong Kong Island Line (rail) • Northern Link (rail) • Central Kowloon Route/T2/Western Coastal Road (road) • Lantau Road P1/Tsing Yi-Lantau Link (road) • Strategic North-South Link (east) between NWNT and North Lantau (i.e. Route 10 and Tsing Lung Bridge) (road) • Strategic North-South Link (west) between NWNT and North Lantau (i.e. Tuen Mun-Chek Lap Kok Link and Tuen Mun Western Bypass) (road) 	
By 2030	Provision of Housing Land	
	Consolidation Option	Decentralisation Option
	<ul style="list-style-type: none"> • development at former Kai Tak Airport completed before 2020 • urban renewal (more redevelopment, less rehabilitation) • 5 NDAs: <ul style="list-style-type: none"> - Hung Shui Kiu - Kwu Tung North - Fanling North - Hung Shui Kiu North - Kam Tin/Au Tau • Remaining government land in existing built-up areas 	<ul style="list-style-type: none"> • former Kai Tak Airport (remaining areas) • urban renewal (more rehabilitation, less redevelopment) • 4 additional NDAs: <ul style="list-style-type: none"> - Hung Shui Kiu North - Kam Tin/Au Tau - San Tin/Ngau Tam Mei - Kwu Tung South • Remaining government land in existing built-up areas
	Provision of Land for Office/ Business	
	<ul style="list-style-type: none"> • premier office centre at the former Kai Tak Airport • private-sector redevelopment for office and general business uses • remaining government land in existing built-up areas 	<ul style="list-style-type: none"> • development of premier office centre completed before 2020 • private-sector redevelopment for office and general business uses • remaining government land in existing built-up areas

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By 2030	Domestic Transport Infrastructure
	<ul style="list-style-type: none"> • North Hong Kong Island Line (rail) • Eastern Highway (Northern New Territories to Hong Kong Island)

9.8.8 **Table 9.3** below gives a broad comparison of the merits and demerits of the two development options. A more detailed evaluation of the two options is contained in the next chapter.

Table 9.3 A Broad Comparison of Two Development Options

Merits	Consolidation Option	Decentralisation Option
	<ul style="list-style-type: none"> - better use of developed areas; efficient use of infrastructure in the Metro Area - shorter travel distances; proximity to work; convenient connection to facilities - reduced upfront cost for the development of NDAs - keeping the undeveloped areas untouched, and leaving greater flexibility for future development, particularly in case of lower population growth 	<ul style="list-style-type: none"> - offers more opportunities for achieving lower development densities in the Metro Area - building up population in the three NDAs; allows earlier provision of infrastructure to the Northern NT and ensures viability of new infrastructure - provides greater diversity of densities, design and built forms through NDA development, and allows greater flexibility for adopting environmental measures and facilities - promotes “cleaning up” of degraded countryside and establishment of “gateway towns”
Demerits	<ul style="list-style-type: none"> - less scope to relieve over-crowding in the Metro Area 	<ul style="list-style-type: none"> - requires upfront cost at an early stage - longer travel time and distances

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Deriving Planning Choices

Demerits	- pressure on the capacity of existing infrastructure in the Metro Area	- more resources are required for land resumption and clearance for NDA development
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9.9 Priority of New Development Areas

- 9.9.1 Previous studies² have identified a number of potential NDAs in the New Territories. We need to establish priorities for their implementation. Relevant factors for consideration include:

Planning Requirements

- Urgency of the proposed use(s)
- Creation of a balanced development, i.e. appropriate balance between population, local employment and services with a mixture of different uses
- Interaction with the existing uses, i.e. ensuring minimal social and economic disruption to the existing users/occupants
- Impact on the environmental quality, i.e. achieving highest environmental gain and least impact
- Ability to optimise existing and planned infrastructure, making effective use of spare capacities
- Ability to enhance links with the Mainland

Implementation Requirements

- Cost-effectiveness in public investment
- Feasibility, i.e. ease of implementation within the current legislation, government procedures and socio-economic practices
- Flexibility, i.e. function effectively at different levels of population and employment and able to adapt to changes in socio-economic profile and types of activities

- 9.9.2 A discussion on the prioritisation of the potential NDAs is given in Chapter 11.

² Planning and Development Studies on North West New Territories and North East New Territories



Section III

Planning Choices

Chapter 10: A Basis for Evaluation

Section III Planning Choices

A Basis for Evaluation 10

“True genius resides in the capacity for evaluation of uncertain, hazardous and conflicting information.”

— *Winston Churchill*

10.1 Assessment for Sustainability

- 10.1.1 As the HK2030 Study has taken sustainable development as its overarching goal, we need to adhere to the sustainability guiding principles in considering different development options and their associated key components/proposals, and to ensure that the recommended strategy would be our best option to help us achieve this goal. The Sustainability Report is at **Annex IV**.
- 10.1.2 Sustainable development has been subjected to a variety of interpretations, but here it is taken to mean:
- finding ways to increase prosperity and improve the quality of life while reducing overall pollution and waste;
 - meeting our own needs and aspirations without doing damage to the prospects of future generations; and
 - reducing our ecological footprint and helping to preserve resources, including natural and heritage resources.
- 10.1.3 The Government’s intention to embrace sustainable development in its policies is driven by a commitment to enable Hong Kong to continue to prosper and allow the economic, social and environmental aspirations of our people to be fulfilled. We need to ensure that this is not relegated to just lip service.
- 10.1.4 In view of the above, a five-stream evaluation framework (**Table 10.1**) has been derived on the basis of the sustainability guiding principles to facilitate comparison of different development options, as well as assessment of the overall impacts of the Preferred Development Option, as detailed in Chapter 12.

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A Basis for Evaluation

Table 10.1 Evaluation Framework

Evaluation Criteria	Preferred State
Environmental (a) To enhance environmental quality and conserve natural and heritage resources <ul style="list-style-type: none"> • Air pollutant emissions • Exposure to roadside air pollution • Noise exposure • Exposure to potentially hazardous installations (PHIs) • Impacts on the quality of fresh and marine waters • Impacts on areas with ecological values • Impacts on areas with heritage values • Impacts on areas with landscape values • Use of greenfield sites and reclaimed land • Production of construction and demolition materials 	Lower Lower Lower Lower Lower Lower Lower Lower Lower Lower
Economic/Financial (b) To enhance Hong Kong's potential for economic growth and ensure efficient use of resources <ul style="list-style-type: none"> • Gross domestic product (GDP) • Diversity in economic activities • Benefit-to-cost • Provision of land for economic activities 	Higher Higher Higher Higher
Land Use Planning (c) To ensure an optimised land use pattern which can meet various land requirements <ul style="list-style-type: none"> • Provision of land to meet housing and various development needs • Provision of infrastructure to meet various development needs • Distribution of employment and housing land • Segregation of incompatible land uses • Socio-economic linkage with the Mainland 	Balanced Balanced Balanced Higher Higher

A Basis for Evaluation 10

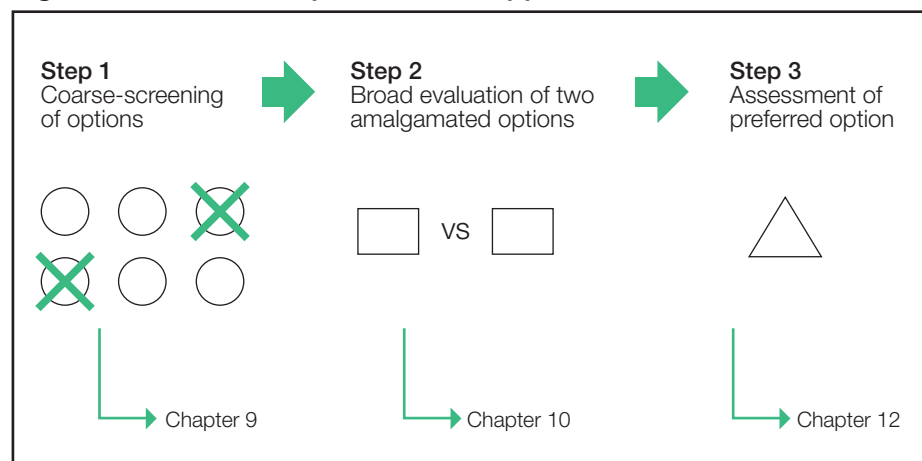
Social (d) To ensure access to major facilities and to foster community bonds <ul style="list-style-type: none"> • Population density • Employment opportunities • Mix of land uses at the community level • Provision of employment opportunities close to home • Number of persons affected by urban renewal and clearance 	Optimised Higher Higher Higher Lower
Transport (e) To ensure a safe, reliable, efficient, economically viable and environmentally friendly transport system to enhance mobility within Hong Kong and across the boundary <ul style="list-style-type: none"> • Travel distance and time • Requirement for new transport infrastructure • Usage of public transport services • Reliance on walking and cycling for short distance travel 	Lower Lower Higher Higher

- 10.1.5 As for the methodology, a three-step approach has been adopted (**Figure 10.1**). It includes an initial coarse-screening to eliminate evidently unacceptable options, as presented in Chapter 9, and is followed by a broad-brush (mainly qualitative) assessment which helps us to compare performance of our options. The results of the broad-brush assessment are reported in the next section of this chapter.
- 10.1.6 The third stage of the evaluation process is a detailed assessment on the Preferred Development Option, with the aid of computer modelling where appropriate, to provide the necessary quantitative measures, results of which are presented in Chapter 12.

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A Basis for Evaluation

Figure 10.1 Three-Step Evaluation Approach



10.1.7 Although strenuous efforts have been put to ensure that results of the detailed evaluation could be as accurate as possible, it must be appreciated that for a long-term study such as this, many of the input assumptions are subject to a high degree of uncertainty, giving rise to a reduced level of accuracy in the results for the longer-term assessments. Nevertheless, rather than being overly rigid about the numerical results, we should regard the assessments as a means to identify issues early in the planning process in order to allow us to set out along a more desirable path of development, and to provide us a better chance to successfully tackle these issues further down the line.

10.1.8 Apart from this evaluation process, a separate sustainability assessment has also been carried out using the “Computer Aided Sustainability Evaluation Tool” (CASET) developed under the Study on Sustainable Development for the 21st Century¹. Results of the sustainability assessment are presented in **Annex IV**.

10.2 Results of Broad Comparison of Development Options

10.2.1 In the previous chapter, we have described two development options, i.e. the Consolidation Option and the Decentralisation Option,

¹ Reference: Environmental Resources Management for Planning Department, *Final Report, Sustainable Development for the 21st Century*, August 2000

A Basis for Evaluation 10

incorporating a number of contrasting development concepts. In the following paragraphs, we will present results of the broad-brush comparison of these two options.

Environment

- 10.2.2 A Strategic Environmental Assessment (SEA) has been conducted by expert consultants in parallel with the Main Study to broadly examine the environmental consequences of development options. Its ultimate goal is to ensure that the development strategies could be realised in a sustainable manner, taking full cognizance of the strategic implications of the proposals as well as their individual components.

Results

- 10.2.3 Evaluation has been conducted for the three benchmark years of 2010, 2020 and 2030. As most of the major projects to be completed before 2010 are already in the pipeline, the performance of all development options for year 2010 are very similar, giving rise to broadly the same results from an environmental perspective. The biggest difference between the options is observed in the medium term (i.e. year 2020) due to the implementation of New Development Area (NDAs) and new port facilities, together with associated transport infrastructure.
- 10.2.4 In general, the Consolidation Option may perform better because priority is given to the use of development opportunities within the Metro Area, and it makes less use of Northern New Territories for development. Moreover, due to a more compact development form, the Consolidation Option may create less potential adverse impacts on the sensitive ecological, heritage and landscape resources in the New Territories. However, under both the Consolidation and Decentralisation Options, the location of the future port will have strong influence on the overall performance.

Economic/Financial

- 10.2.5 Financial and economic assessments both determine the net worth of an investment but from different perspectives and using different

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A Basis for Evaluation

inputs. The financial assessment determines the net monetary worth of an investment (or policy) using expenditures and revenues as inputs. The economic assessment determines the net economic worth of an investment (or policy) to society or the economy as a whole by using economic costs and benefits as inputs.

- 10.2.6 The assessment aims at measuring the performances of all aspects (e.g. financial, environmental and social) of an investment. Implications on each aspect would be presented in monetary value as far as possible, either through adjusting financial prices to reflect the real or economic situation and/or by assigning monetary values to qualitative factors. For non-quantifiable implications, a qualitative assessment would be carried out.
- 10.2.7 The broad-brush financial and economic assessment of the two development options therefore covers three main aspects:
- A quantitative financial assessment which concerns with expenditures and revenues to the Government; and a quantitative economic assessment which measures the costs and benefits with reference to the benchmark years of 2010, 2020 and 2030;
 - A qualitative assessment, which evaluates the socio-economic performance of the development options; and
 - A sensitivity analysis on strategic variations to the development options with respect to the port location.

Results

- 10.2.8 Both development options deliver positive financial and economic returns, although the Consolidation Option has a higher financial return owing to a higher revenue from land premium generated from urban projects.
- 10.2.9 As concerns economic aspects, the Decentralisation Option is expected to perform better in terms of supporting GDP growth and strengthening the economic base in the priority growth sectors such as logistics, knowledge-base industries and tourism. It also enables

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a higher degree of co-location of housing and employment areas to promote easier travel to work. However, there is lower economic cost associated with the Consolidation Option through more use of brownfield land.

- 10.2.10 Both options perform well with respect to the social criteria. The Consolidation Option performs better in promoting urban vibrancy by maximising investment in the regeneration, development and integration of activity in the urban area. However, the Decentralisation Option has greater potential to enhance linkages with the Mainland by providing employment and housing closer to the boundary.
- 10.2.11 The qualitative assessment therefore suggests that both options perform well on different criteria. However, the overall balance is in favour of the Decentralisation Option because of its better economic performance.
- 10.2.12 The sensitivity test has taken the location of port development as a strategic variation to the options. The result shows that reversing the location of port development would only give a marginal impact on either the financial or economic assessment results.

Land Use

- 10.2.13 As the aim is to ensure an optimised land use pattern which can meet various land requirements, we have focused on whether the development options could enhance a more balanced distribution of employment and housing land, help segregate incompatible land uses and strengthen the socio-economic linkage with the Mainland.

Results

- 10.2.14 In terms of population balance, the Decentralisation Option performs better by allowing a higher growth in the New Territories, resulting in an increase of the NT population from about 40% of the total population presently, to about 48% by 2030, compared to 46% under the Consolidation Option. Similarly for employment distribution, the Decentralisation Option also sees the creation of more employment related land in the New Territories. By 2030, about 28% of all jobs will

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be provided in the New Territories under the Decentralisation Option, vis-à-vis 25% under the Consolidation Option.

- 10.2.15 The Consolidation Option would facilitate a faster rate of redevelopment in the old urban areas, including many of the industrial districts, allowing the phasing out of many previously incompatible land uses. On the other hand, the Decentralisation Option will allow more development in the northern parts of the New Territories, facilitating the growth of gateway towns which could help strengthen links with the Mainland.
- 10.2.16 On the whole, the Decentralisation Option performs slightly better under the land use planning aspects.

Social

- 10.2.17 From a social perspective, the key is to ensure access to major facilities and to foster community bonds, which would include the facilitation of a better mix of land uses at the community level, provision of jobs closer to home and reduction of social disruption caused by (re)development.

Results

- 10.2.18 As far as the land use mix is concerned, both options have similar performance. While NDAs in the New Territories will be planned comprehensively and provided with adequate infrastructure and community facilities, infilling and redevelopment in the urban areas also allow ample opportunities for a good mixture of uses.
- 10.2.19 Although there are strong aspirations for providing more jobs closer to places of residence, it is often difficult for Government to drive such a trend, as the provision of most employment is dependent on the choice of location for businesses, which is basically a commercial decision. Therefore, the expected number of jobs would only be realised on condition that the planned employment land would be taken up by the private sector, which is the assumption for our assessment. Comparing the performance of the two options, it is found that the job-to-population ratios of both options are quite similar.

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- 10.2.20 On social disruption, development of NDAs would involve a significant level of disturbance due to the large number of residents and operations to be affected. Similarly, redevelopment in the urban areas could also be disruptive to the existing dwellers and businesses. As such, both options have similar performance in this respect.
- 10.2.21 To conclude, the social assessment gives a tie between the two options.

Transport

- 10.2.22 A strategic transport assessment to evaluate the transport demand of the two development options and to identify the need and timing of new transport infrastructure requirements has been conducted. In



assessing Hong Kong's domestic transport demand, we have assumed two additional pieces of cross-boundary infrastructure to be in place by 2020, namely the Hong Kong-Zhuhai-Macao Bridge (HZMB) and the Hong Kong-Shenzhen-Guangzhou Express Rail Link (ERL). These components are common to the two development options.

- 10.2.23 In recommending new infrastructure, reference has been made to those proposals previously studied under the Third Comprehensive Transport Study, the Second Railway Development Study and the North-west New Territories (NWNT) Traffic and Infrastructure Review.

Results

- 10.2.24 There is only a slight difference in mechanised trips between the two development options. Similarly, the trip distribution patterns are broadly the same except that in Kowloon, there are fewer internal trips under the Decentralisation Option as fewer population and job places have been assumed in the Metro area.

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- 10.2.25 The major difference between the two development options is the average trip length. The Decentralisation Option will give rise to an average trip length that is about 3% higher than that for the Consolidation Option. In addition, the Decentralisation Option also gives a 6% increase in overall vehicular travelling time during the morning peak period in 2030 when compared with the Consolidation Option.
- 10.2.26 In the time horizon up to 2010, all committed projects including the Deep Bay Link, Hong Kong-Shenzhen Western Corridor and the Lok Ma Chau Spur Line would be in place. The east-west corridor along the northshore of the Hong Kong Island and Central Kowloon will experience capacity problem before 2010. The Central-Wanchai Bypass and Central Kowloon Route will need to be implemented as early as possible.
- 10.2.27 By 2020, without additional infrastructure, we anticipate that further major capacity problem would appear along the north-south corridor between NWNT and the Metro Area and between Tseung Kwan O and Kowloon. Congestion would also appear at the North Lantau Highway and the Lantau Link. New roads, including a strategic north-south link between NWNT and North Lantau, Route 6 comprising Central Kowloon Route, Trunk Road T2 and Tseung Kwan O-Lam Tin Tunnel, the section of Route 4 between Kennedy Town and Aberdeen (as an alternative to the South Island Line (West)), Lantau Road P1 and Tsing Yi-Lantau Link, have therefore been proposed for completion before 2020.
- 10.2.28 Traffic projections up to 2030 were indicative only due to future uncertainties. There could be congestion along the north-south corridor from North-east New Territories to the Metro Area and cross-harbour routes. The Eastern Highway and a fourth harbour crossing previously studied under the Third Transport Comprehensive Study would warrant further investigation.

Section IV Planning Strategy and Next Steps

Chapter 11: Preferred Development Option

Section IV

Planning Strategy and Next Steps



Preferred Development Option 11

*“The measure of choosing well, is,
whether a man likes or finds good in what he has chosen.”*

— Charles Lamb

11.1 Introduction

- 11.1.1 As neither of the two options, i.e. the Consolidation and Decentralisation Options, presented in Chapter 9 stands out, the Preferred Development Option has been derived by extracting the more desirable elements from each of the two options through the broad assessment set out in Chapter 10 forming a hybrid. This Preferred Option (**Figures 11.1 and 11.2**) basically concerns about the future spatial development pattern, outlining where, what type and how much development should take place at different planning horizons. The rest of this chapter presents a broad description of the Preferred Option. An overall planning strategy which encompasses a wider perspective will be presented in Chapter 13.

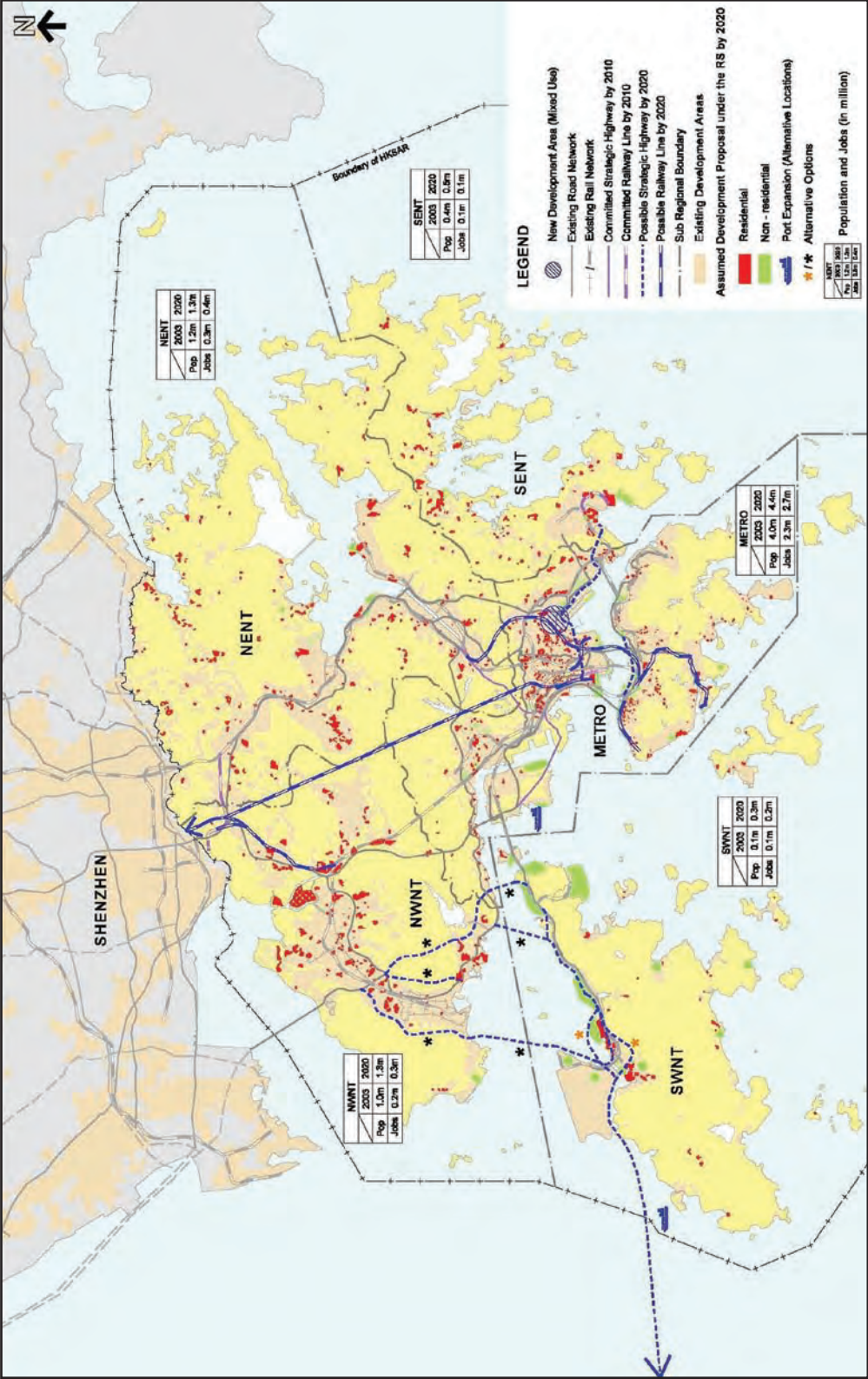
11.2 Planning Concepts and Functions

- 11.2.1 Being a highly compact city, Hong Kong's preferred future spatial development pattern is underpinned by the planning concept (**Figure 11.3**) of clustering the bulk of development around mass transit railway stations to facilitate fast and mass movement of people in an environmentally friendly mode of transport. Better utilisation of development opportunities in the existing built-up areas where infrastructure capacities permit would also be recommended. However, care should be exercised to take into account urban design considerations (such as building mass and height, provision of breezeways etc.) as well as heritage conservation objectives, in the planning of new developments.

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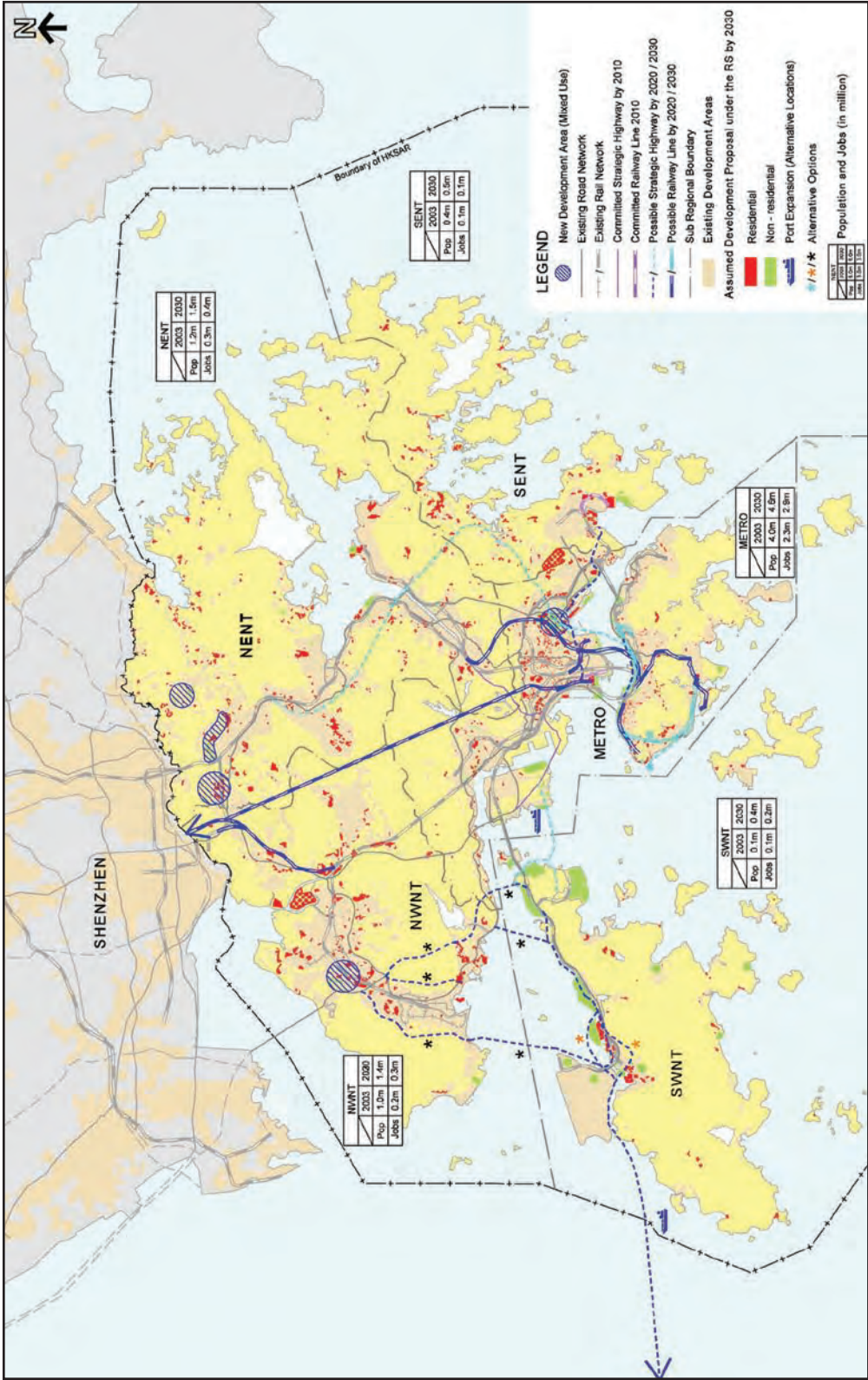
Preferred Development Option

Figure 11.1 Preferred Development Option for Impact Assessment (Medium Term - by 2020)



Preferred Development Option 11

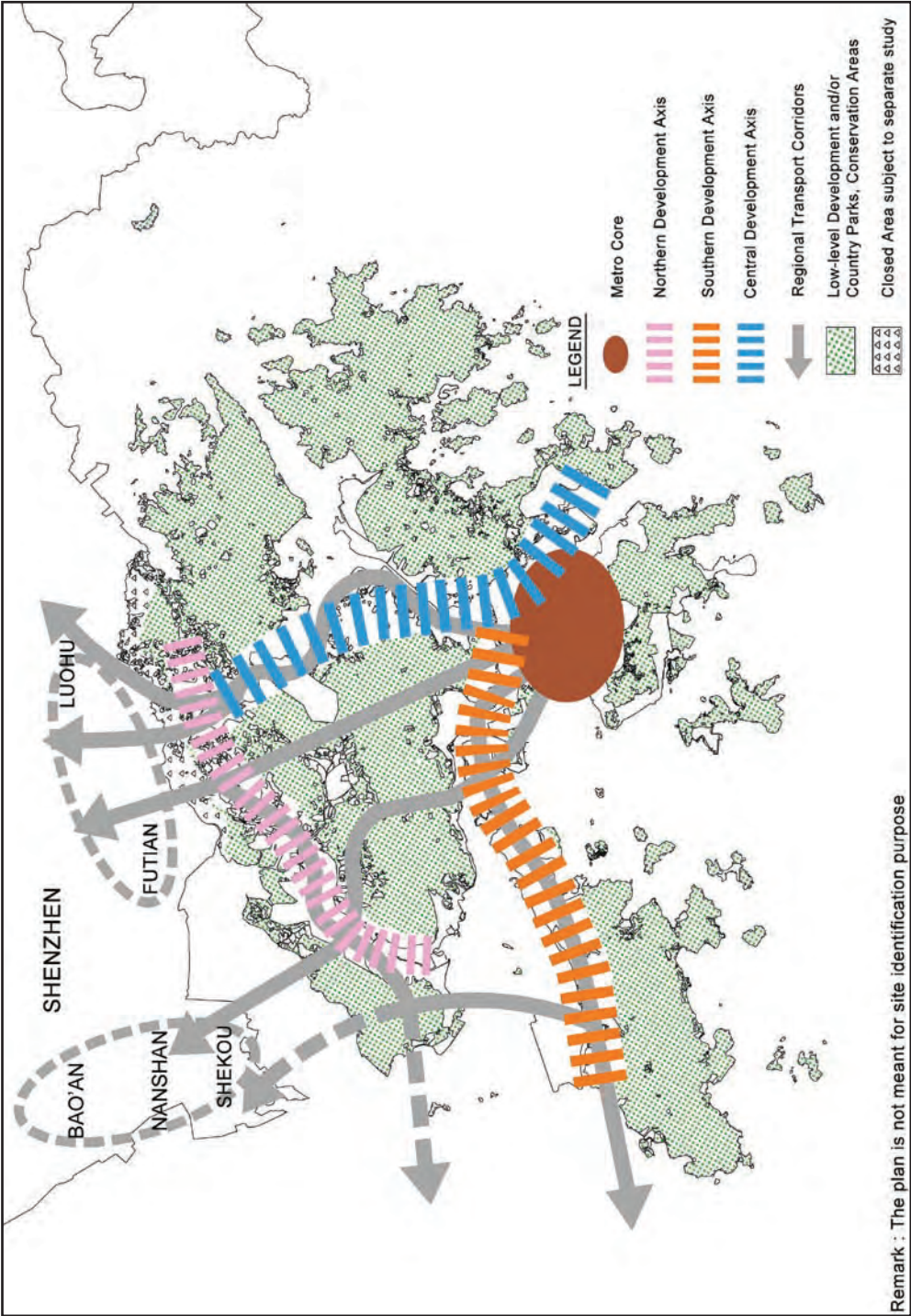
Figure 11.2 Preferred Development Option for Impact Assessment (Long Term - by 2030)



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Preferred Development Option

Figure 11.3 Strategic Concept Plan



Preferred Development Option *11*

- 11.2.2 While massive construction programmes like the new towns of the 1970s to 1990s are not recommended at this juncture, new development areas of a moderate scale in northern New Territories are proposed to provide land for a mixture of uses including housing, employment, and possibly higher education and high value-added/clean special industrial processes. These will be comprehensively planned to provide an alternative living choice which emphasises both quality living space and resident/user convenience.
- 11.2.3 By optimising development opportunities in the existing built-up areas, with only moderate-scale new developments in the New Territories, it will allow us to preserve most of our rural areas, thereby creating a sustainable form of development.
- 11.2.4 In terms of future development directions, the core urban areas will still remain as the focal point of development and urban activities. Further development opportunities will be found along three axes – (i) the first in a north-south direction roughly aligning with the East Rail; (ii) the second spreading westwards from the core towards Lantau; and (iii) the third alignment in northern New Territories located close to the boundary with Shenzhen (**Figure 11.3**). These development area/axes will serve the following functions:
- Metro Development Core – Intensive commercial/business zones and housing for urban-style living;
 - Central Development Axis – Community-type housing and education/knowledge-building facilities;
 - Southern Development Axis – Logistics and major tourism facilities; and
 - Northern Development Axis – Non-intensive technology and business zones and other uses that capitalise on the strategic advantage of the boundary location.
- 11.2.5 For the rest of Hong Kong in areas falling outside existing developed areas, we would recommend a lower level of development with conservation being a priority consideration.

11 Preferred Development Option

11.3 Housing

- 11.3.1 In Chapter 9 we note that the Consolidation Option allows better use of developed areas and more efficient use of infrastructure in the Metro Area (i.e. the areas covering Hong Kong Island, Kowloon, Tsuen Wan, Kwai Chung and Tsing Yi). It gives shorter travelling distances for work trips and convenient connection to facilities. Keeping the undeveloped areas untouched can leave greater flexibility to meet the needs of future generations and avoid major upfront financial commitment.
- 11.3.2 As such, it would be sensible to give priority to utilising the available development potential of the Metro Area. Of the 1.6 million increase in population from the Base Year to 2030 as assumed, there is room to accommodate about 0.6 million (i.e. about 36%) of it in the Metro Area, mainly at redevelopment/ infill sites, at West Kowloon and Kai Tak, assuming a lower density as recommended in the latest plan of the latter.
- 11.3.3 However, to address the congestion problem, high-density districts such as Mong Kok and North Point should be given greater attention in determining whether to introduce new developments into these areas, and if so, the desirable intensity for the new developments. The development density issue is further discussed in Section 11.6 below.
- 11.3.4 On the other hand, the Decentralisation Option, through dispersing more of our development and population to the New Territories, offers opportunities for arresting the intensification process in the Metro Area.
- 11.3.5 In addition, there is still scope to accommodate a substantial proportion of our population growth at the undeveloped parts of the existing new towns, especially Tseung Kwan O and Tung Chung. Together, such development opportunities should be able to take in about 0.5 million more people (or about one-third of the population increase from the Base Year to 2030).

Preferred Development Option 11

- 11.3.6 Besides, New Development Areas (NDAs) could provide a better living environment with greater diversity in density, design and built form. Earlier implementation of some of them could allow timely provision of needed infrastructure in northern New Territories. We assume that housing development at Kwu Tung North NDA and Fanling North NDA (part of the Three-in-One Scheme) and Hung Shui Kiu NDA could accommodate 0.35 million people (or about 22% of the population increase from the Base Year to 2030). The actual population capacity of the NDAs will be subject to detailed study.
- 11.3.7 The distribution of “new” population under the Preferred Development Option is shown in **Table 11.1** below.

Table 11.1 Distribution of “New” Population

	Base Year – 2010	Up to 2020	Up to 2030
Metro Area	192,000 (49%)	321,000 (32%)	573,000 (36%)
New Towns	163,000 (42%)	491,000 (49%)	509,000 (32%)
NDAs ¹	-	42,000 (4%)	353,000 (22%)
Others	33,000 (9%)	153,000 (15%)	167,000 (10%)
Total	388,000 (100%)	1,007,000 (100%)	1,602,000 (100%)

Central Business District² (CBD) Grade A Offices

- 11.4.1 As illustrated in Chapter 8, it is assumed that there will be a total requirement of employment floorspace of about 11.0 million m² in GFA up to 2030 and CBD Grade A offices will account for 2.7 million m² GFA. In working out a planning strategy for CBD Grade A offices, we have assumed that there will be no more harbour reclamation (other than the proposed Wan Chai North Development which will in any case not provide any office accommodation). While meeting all requirement for Grade A office space at the CBD may not be a desirable option in planning terms, decentralisation alone is neither able to fully satisfy the planning criteria of CBD Grade A

¹ Only include the population increase resulting from upgrading of infrastructure related to NDA schemes, and exclude existing populations and populations arising from approved development schemes or projects already in the pipeline.

² For the purpose of the HK2030 Study, the CBD is defined as the business zones within Central, Wan Chai, Sheung Wan, Causeway Bay, Tsim Sha Tsui and the West Kowloon Reclamation.

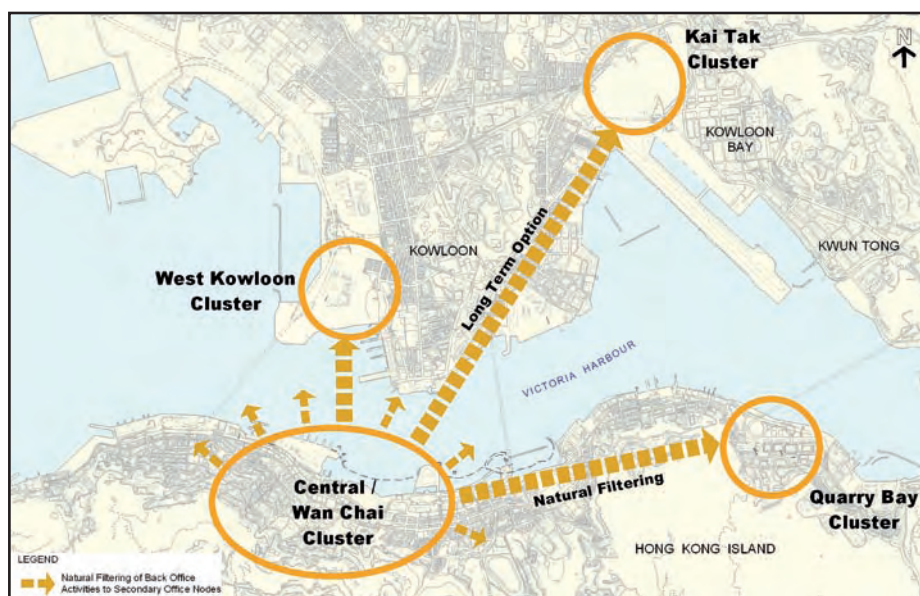
11 Preferred Development Option

offices both in terms of quantity and the agglomeration requirement. We should therefore, similar to the approach for housing land, adopt a hybrid of the Consolidation and Decentralisation Options in formulating the planning strategy for CBD Grade A offices. However, noting the agglomeration characteristic of office activities, our search for opportunities has been focused within the harbour area.

- 11.4.2 The existing CBD could be reinforced by making use of the remaining undeveloped office sites, vacated Government, Institution or Community sites, or, where appropriate, freeing up space or land currently occupied by government offices to facilitate the provision of Grade A offices. Private-sector redevelopments within the CBD are also expected to contribute to the office supply.
- 11.4.3 In parallel, we note the continued development of up-market office space at Quarry Bay which is mainly driven by private initiatives. This may well form an off-CBD office node that provides the kind of accommodation comparable to Grade A offices within the CBD. It may appeal to those multi-national companies which do not necessarily need to remain at the CBD but would opt for high-grade office accommodation at a convenient location outside the CBD.
- 11.4.4 Besides, located at an important transportation hub with the convergence of three existing and planned railways, the West Kowloon Reclamation also provides good opportunities to be turned into another high-grade office cluster. In addition, we will reserve land for the possible development, in the longer term, of a new office node at the former Kai Tak Airport site. Similar to Quarry Bay, this new office node may address the needs of some of the conventional CBD occupiers and could produce synergy with the neighbouring Kowloon Bay and Kwun Tong business districts currently undergoing transformation from their industrial origins. **Figure 11.4** illustrates our proposed strategy for CBD Grade A offices.

Preferred Development Option 11

Figure 11.4 Proposed strategy for CBD Grade A offices



- 11.4.5 In a nutshell, we believe that the supply in hand, including the known private projects in the CBD and Quarry Bay, will be sufficient to meet the office requirement at least for the next few years. Longer-term supply from government sources will continuously come on-stream upon resolution of such issues as urban design, traffic impacts and reprovisioning of existing uses. This supply is expected to be supplemented by further private redevelopment proposals through the market mechanism.

Office/Business Nodes

- 11.4.6 Since the introduction of “Other Specified Uses” annotated “Business” (“OU(B)”) zone in 2001, we have rezoned about 200 hectares of “Industrial” land to “OU(B)” so that buildings within such zones can be used for both industrial and office/ commercial purposes.
- 11.4.7 Utilising the unrealised development potential arising from the redevelopment of existing industrial areas would be our major strategic response to the supply of general office/business uses. Since “OU(B)” zones are mainly located at the urban fringe, intensification of development in these areas could help achieve decentralisation of employment opportunities to some extent.

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Employment Uses in the New Territories

- 11.4.8 As Hong Kong's economy becomes increasingly services oriented and services industries have a tendency to concentrate in the urban areas, large-scale decentralisation of general office developments to the New Territories in the foreseeable future would be unlikely. However, some special industries involving high value-added, high-tech production and logistics activities are less reliant on agglomeration economies and could be more ready to decentralise to the New Territories.
- 11.4.9 Our assessment shows that the net requirement for special industries amounts to 2.9 million m² GFA up to 2030. Special industries are normally land-extensive and/or entail particular accommodation requirements. We therefore need to reserve specific locations to address their particular needs.
- 11.4.10 There are still capacities at the existing Science Park and industrial estates to accommodate some of the more immediate demand. However, land will need to be identified to meet longer-term needs. As demand for special industrial land may arise quite unpredictably and at a large quantity, we need to plan ahead and create sufficient land reserves to ensure a prompt response to such unanticipated demand. In this connection, the Ping Che/Ta Kwu Ling NDA and part of the Hung Shui Kiu NDA could be considered for the provision of land reserves for special industries.
- 11.4.11 Prior to the land in Ping Che/Ta Kwu Ling and Hung Shui Kiu being permanently taken up by special industries, this land could be temporarily allocated for the reprovisioning of the port back-up and other storage uses displaced by the NDA schemes. As noted in Chapter 8, the demand for port back-up uses is expected to decline in future, especially in the light of changes to Mainland's customs policies, therefore providing scope for accommodating special industries in the longer term on the land concerned.
- 11.4.12 Separately, subject to the resolution of various development constraints, the Closed Area at the boundary could also be deployed for employment land uses including high value-added economic uses,

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especially those that capitalise on our links with the Mainland. The development potential in the Closed Area is being examined in the “Land Use Planning for the Closed Area – Feasibility Study”.

- 11.4.13 Apart from special industries, it is also our intention to reserve land at one of the NDAs for the development of tertiary educational facilities. While this is still an initial concept, details for which still need to be further articulated, these facilities are targeted to provide a supportive learning environment in order to attract more Mainland and international students and skilled professionals to study and work in Hong Kong. Facilities may include not only teaching campuses, but a mixture of residential accommodation and other supporting facilities. A preliminary assessment finds that Kwu Tung North, with its serene rural setting and convenient access to the Mainland, would be a desirable location for this purpose.

11.5 New Development Areas in the New Territories

- 11.5.1 Previous new town proposals were conceived at times of high development pressure. However, due to the anticipated slower population growth and available development opportunities elsewhere, we are no longer compelled to introduce development of this scale.



- 11.5.2 Nevertheless, we would still recommend proceeding with some of the NDA proposals, which are only about a fifth to a quarter of the size of conventional new towns. NDAs not only provide a mixture of public and private housing land, but they could help to meet other land use requirements such as those mentioned in Section 11.4 above. NDAs also offer an alternative choice of living through the development of lower-density buildings in a quality living environment, with convenient access to mass transportation and community facilities. Besides, by shifting some of the population from the dense urban areas to

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the New Territories, we could achieve a more balanced territorial development pattern and a less congested environment, particularly needed in those urban areas which are characterised by extremely high development densities.

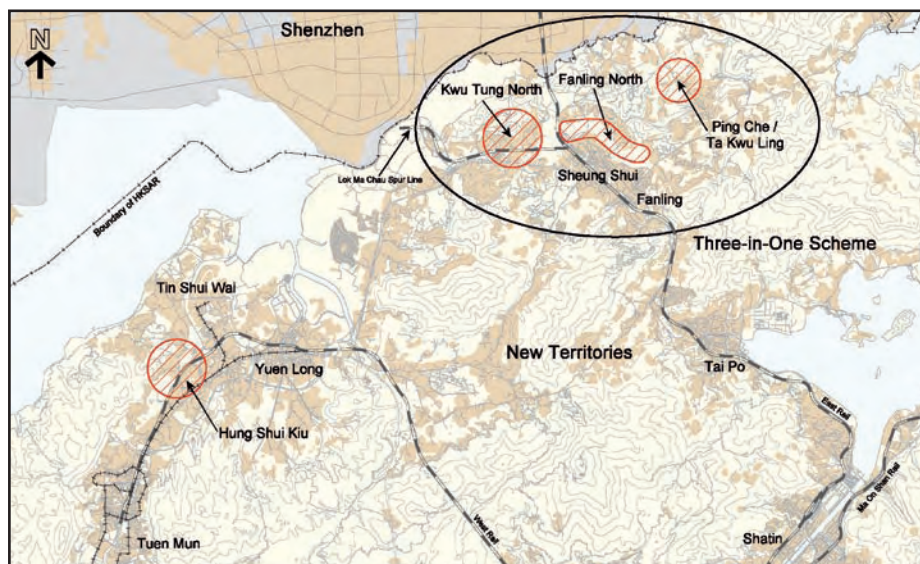
Implementation Priority

- 11.5.3 A number of NDAs have been identified in past studies³, but given the lower population assumptions, there is no need to implement all of them within the Study's planning horizon. The priority for implementation has therefore been considered. Subsequently, the development of NDAs at Kwu Tung North, Fanling North and Ping Che/Ta Kwu Ling (Three-in-One Scheme) and Hung Shui Kiu (**Figure 11.5**) have been prioritised mainly for the following reasons:
- i. These NDAs have been studied in detail in the past and the public were consulted on the preliminary proposals;
 - ii. They are served by rail and would be highly accessible through the development of new rail stations. Ping Che/Ta Kwu Ling which is not accessible by rail is only proposed for non-housing uses, e.g. special industries; and
 - iii. They are contiguous to existing developed areas such that it would be more cost effective in the provision of infrastructure. Some of the existing government, institution or community facilities could also be shared between the developed areas and the NDAs. Conversely, NDAs could provide additional employment opportunities for new town dwellers.

³ Planning and Development Study on North West New Territories and Planning and Development Study on North East New Territories.

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Figure 11.5 Broad Locations of NDAs



- 11.5.4 Development of NDAs has a long lead time of at least 12 to 13 years, involving such tasks as planning review, rezoning, land resumption/clearance/rehousing, engineering works and building construction.
- 11.5.5 The implementation for the two NDA schemes would need to be staggered for better resource utilisation (including planning, land clearance and works management). Taking into consideration such factors as reprovisioning needs and urgency of some of the proposed uses, the Three-in-One Scheme would be given priority for implementation and a planning and engineering review study for this scheme is recommended to be conducted as soon as possible.

Development Densities at NDAs

- 11.5.6 To provide an alternative form of living environment, the NDA should not be targeted for a high-density form of development. However, this may act against our intention to capitalise on the rail connection. To strike a balance, it is proposed that the development density around rail stations should be set at a medium level, with plot ratios comparable to new towns like Sha Tin/Ma On Shan. Lower plot ratios could be adopted for development sites farther away from the rail stations.

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11.6 Development Densities at Existing Urban Areas

Congested Urban Districts

11.6.1 The current development density controls, whether under the Building (Planning) Regulations (B(P)R) or the outline zoning plans (OZP), have been progressively established and revised since the 1960s. The development intensity pattern, by and large, reflects the socio-economic and development needs of the time. The philosophy was to provide as much flexibility in the OZPs as possible to cater for our changing societal needs. As such, development intensity controls more stringent than those of the B(P)R are mainly imposed in areas intended for low-intensity development only. Controls in other areas were largely achieved through land leases with reference to administrative plans and the density zones set out in the Hong Kong Planning Standards and Guidelines (HKPSG).

11.6.2 Hence, the generally flexible development intensity controls have created the characteristic high-density feature of Hong Kong. Then again, it is widely recognised that there are merits associated with the high-density development pattern, including better land utilisation, optimisation of infrastructure, efficient use of energy resources, and preservation of more rural land and ecologically valuable resources, thereby resulting in a more sustainable form of development. Allowing higher densities could also facilitate the urban renewal process.



11.6.3 However, the higher development intensities have generated more housing units on individual sites, resulting in rising population levels, which could exert increased pressures on our infrastructure and provision of community facilities and open space. Fortunately, over the years, the decreasing household size⁴ has offset some of the

⁴ According to Census and Statistics Department's records, Hong Kong's average household size dropped from 4.4 in 1961 to 3.1 in 2005.

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growth caused by the injected populations, and even brought about a thinning process in some of the most congested urban districts.

- 11.6.4 Nevertheless, higher development intensities also give rise to bulkier buildings, which could result in protrusive built forms, blockage of wind passage and view corridors as well as stagnation of airflows at the pedestrian level. Indeed, in the aftermath of SARS and rising aspirations for a higher quality living environment, there have been continuous community calls for lowering development intensities, reducing building bulk and height, and providing more open space.
- 11.6.5 In view of the pros and cons both ways, we do not propose blanket reduction of development densities, but a more balanced approach in determining a suitable level of development intensities for individual localities. Sites under government control will be our primary targets and priority would be given to those sites at distinctive locations, such as the harbourfront, and land situated in prominent urban design or air ventilation corridors.
- 11.6.6 In this light, the Government has already taken steps to review the development densities at some of the major harbourfront locations, e.g. Kai Tak, North Point and Central District, and at individual sale sites, e.g. the Oil Street comprehensive development area and the former Hollywood Road police quarters.

New Towns

- 11.6.7 As most of the new towns have largely been developed in accordance with comprehensive plans, there is little scope nor a strong need to review their development densities. For Tseung Kwan O, the existing densities of which may tend to be on the high side, work has already been carried out to lower the plot ratios of the remaining undeveloped sites, together with the provision of more open space and recreational facilities. For Tung Chung Further Development, care should be exercised in its forthcoming comprehensive planning and engineering study to apply the most appropriate level of densities commensurate with its geographical character as well as other considerations.

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11.7 Protection of Rural Areas

- 11.7.1 Through designation of Country Parks, Special Areas and various conservation zonings on statutory town plans, about 43% of Hong Kong's land area is under statutory protection. The urbanised areas of Hong Kong have so far taken up about 21% of the land area, with rural settlements a further 2%. With our future spatial development pattern, we need only to open up no more than 2% of our land area by 2030. This will still leave a large proportion of woodland, shrubland, grassland and agricultural land primarily remaining untouched by strategic development proposals. In these areas, conservation will be a priority consideration – the pursuit of development or land use thereat must give due respect to the environment and other conservation concerns. Chapter 13 will further discuss planning proposals related to the beneficial use of our rural lands.

11.8 Predetermined

- 11.8.1 Predetermined refer to those strategic planning components that are being dealt with outside the HK2030 Study. The generation of options and decision on these components are related but independent to this Study. While impact assessments have been (or will be) carried out for the individual components or projects in their respective sectoral studies, inclusion of these components in our Preferred Option could ensure that the overall cumulative impacts would be considered.

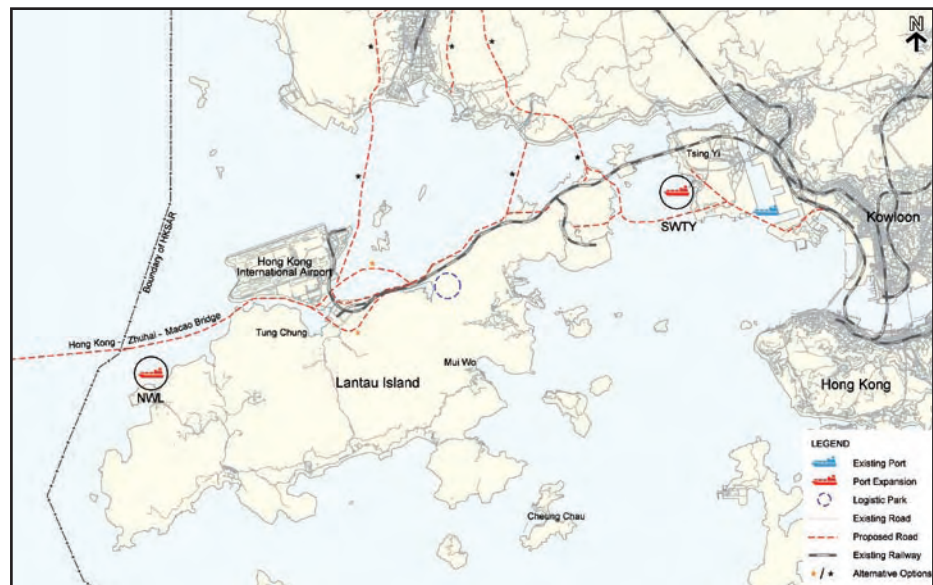
Port Development

- 11.8.2 According to the Study on Hong Kong Port – Master Plan 2020 (HKP2020 Study), significant additional capacity can be added through enhancement of the existing container terminals to satisfy short-term demand. However, in the longer term, we would need to ensure adequate and timely supply of new port facilities.

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- 11.8.3 To determine the optimum location for the new terminal, two locations, Northwest Lantau (NWL) and Southwest Tsing Yi (SWTY) (Figure 11.6) have been examined under the HKP2020 Study. Under current conditions, NWL has better potential, primarily because of its economic and financial performance relative to SWTY, as detailed in Annex V.

Figure 11.6 Proposed Port Locations



- 11.8.4 However, a decision on a preferred location for the new terminal will be contingent upon completion of the Ecological, Fisheries and Water Quality Impact Assessment Study for the proposed port development at NWL and the new port cargo forecasts. We have therefore taken into account both locational possibilities for port expansion in our assessment of options under the HK2030 Study.

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Airport Development

- 11.8.5 The Hong Kong International Airport (HKIA) Master Plan 2020 has identified the key facilities and services which will be required to achieve the ultimate annual capacity for HKIA. These include enhancement and expansion of the passenger terminal building, construction of midfield concourse, establishment of a 24-hour “SkyCity”, and exploring the possibilities of multilateral and bilateral cooperation between airports. With these improvements, the HKIA will be able to handle the forecast passenger and cargo increase up to 2020.
- 11.8.6 In the recently published update of the Master Plan (known as HKIA 2025), the Airport Authority Hong Kong (AA) has forecasted that by 2025, the HKIA will serve 80 million passengers, and handle 8 million tonnes of cargo and 490,000 aircraft movements each year. While the report has indicated that AA will soon begin engineering and environmental feasibility studies on the construction of a third runway at the HKIA, in the absence of details on this proposed third runway at this stage, it has not been taken on board under the Reference Scenario or any of the alternative scenarios of the HK2030 Study for testing purpose.

Transport Network

Domestic

- 11.8.7 To meet the increasing traffic demand and to provide early relief to certain congested sections of the existing road networks, a number of transport projects have been separately proposed in various planning or engineering studies. These projects have been adopted in the relevant strategic assessments of our development options. They are generally assumed for implementation in the medium to long term as set out in **Annex VI**. The need, scope and timing of each of the transport projects are only assumptions of this study and would be subject to further review in due course.

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Cross-boundary

- 11.8.8 Upon review of the existing linkages, we estimate that there is a need to improve the cross-boundary facilities and infrastructure to meet the increasing demand for passenger, vehicle and cargo flows as well as the growing number of Mainland visitors. Our goal is to integrate and expand the road and rail networks between Hong Kong and the Mainland, especially the PRD.
- 11.8.9 Continued enhancement to the handling capacities of control points, development of multi-modal transport facilities nearby, as well as provision of additional road and rail links, including the recently completed Hong Kong-Shenzhen Western Corridor and Lok Ma Chau Spur Line, will help to improve the cross-boundary passenger and vehicle flows. The Government is also working closely with relevant Mainland (and Macao) counterparts to accelerate implementation of the Hong Kong-Zhuhai-Macao Bridge and the Guangzhou-Shenzhen-Hong Kong Express Rail Link.

Section IV Planning Strategy and Next Steps

Chapter 12: Impact Assessments



Impact Assessments 12

“One role of the sciences should be to provide information to better enable formulation and selection of environment and development policies in the decision-making process.”

- Agenda 21

12.1 Introduction

- 12.1.1 In Chapter 10, we have described a three-step evaluation approach comprising coarse-screening, broad evaluation and assessment of preferred options. The results of the first two steps have been separately presented in Chapters 9 and 10. In this Chapter, we will summarise the results of various impact assessments on the Preferred Development Option and recommend suitable refinements to the option where appropriate.
- 12.1.2 The Preferred Development Option has been assessed in terms of a five-stream evaluation framework. A sustainability assessment is also carried out concurrently to ensure that the recommended strategy would be the best option to achieve our overarching goal for sustainable development.

12.2 Assessment Results

Environment

- 12.2.1 The overall evaluation criterion is to enhance environmental quality and conserve natural and heritage resources. With the assistance of a Strategic Environmental Assessment (SEA), the performance of the Preferred Development Option in each of the following aspects has been assessed, and the results are summarised in the ensuing paragraphs. More details concerning the findings and results of the SEA are contained in a separate report prepared by the consultants.

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Air

- 12.2.2 Air quality is generally perceived as the key environmental issue in Hong Kong. Deterioration in air quality is related to a number of factors, including emissions from trans-boundary sources, local vehicles, power plants (nitrogen oxides and respirable suspended particulates (RSP)) and construction works (total suspended particulates (TSP)).
- 12.2.3 A number of new rail projects will progressively be completed before 2010. The use of rail to meet additional demand will reduce a significant amount of road traffic, thereby eliminating the pollutants that would otherwise be released into the atmosphere from vehicle exhaust emissions. For example, it has been estimated that the West Rail could help to reduce about 1,000 tonnes of vehicular pollutants a year.
- 12.2.4 For major road projects like the Shenzhen Western Corridor (SWC) and the Deep Bay Link (DBL) opened in 2007, the air quality modelling conducted under their corresponding studies¹ do not show exceedance of the respective Air Quality Objectives² at all identified existing and future air sensitive receivers in their vicinity.
- 12.2.5 Based on our air quality modelling, we expect that there will be general improvement in air quality in the medium to long term. Nevertheless, a major contributor to air pollution by domestic source could remain to be the power stations, should they continue in their present operation mode. For example, the assessments show that 40% of the Nitrogen Oxides (NO_x) will be generated from power stations, compared with 12% of NO_x contributed by road traffic. Besides, as there are few established control measures that are able to adequately address the emission from aircraft and marine vessels, the contribution of NO_x by these two types of transport are expected to increase significantly to 10% and 36% respectively in the future in line with the rise in aircraft movements and marine activities.

¹ "Shenzhen Western Corridor Investigation and Planning" and "Deep Bay Link Investigation and Preliminary Design" studies

² The Air Quality Objectives for Nitrogen Dioxides, RSP, Carbon Monoxide and Sulphur Dioxides.

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- 12.2.6 While efforts would be needed to address air pollution generated by road traffic and power stations, we should not lose sight of the development of “cleaner fuels” and advanced technology which may offer the potential for tackling air pollution problems at source. More specific actions should also be considered to tackle other rising emission sources like aircraft and marine vessels which tend to cause the biggest impacts around the airport and seaport areas.

Water

- 12.2.7 The bacterial level in the Victoria Harbour and Western Buffer WCZs are expected to decrease significantly due to the provision of the disinfecting facilities at the Stonecutters Island Sewage Treatment Works (SCI STW). Although the Central Reclamation Phase III will reduce the tidal current speeds through the Victoria Harbour, it is not expected to generate any noticeable effect on the water quality.
- 12.2.8 By 2020, the Harbour Area Treatment Scheme (HATS) Stage 2A (i.e. provision of disinfecting facility at SCI STW) will have been completed. Coupled with the completion of the tunnels transferring the sewage from Hong Kong Island to SCI STW for a higher level of treatment, the pollution load discharged into the Victoria Harbour WCZ and Western Buffer WCZ will substantially reduce. The water quality in the Victoria Harbour, Western Buffer, Southern and North Western WCZs will all benefit from HATS Stage 2A. As a result, there will be a general improvement in the overall water quality compared either with the Base Year or 2010.
- 12.2.9 The upgrading of Pillar Point STW will also be completed before 2020. The effluent targeted for Deep Bay WCZ will be transferred to the North Western WCZ after passing through the Pillar Point STW. Notwithstanding the increase in the volume of sewage effluent, the total pollution load discharged into the North Western WCZ is still expected to decrease as a result of the upgrading of the Pillar Point STW. However, the effect on the water quality of Deep Bay itself will very much depend on the pollution contribution from the Shenzhen catchment.

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- 12.2.10 Stage 2B of HATS involves the building of a biological treatment facility which is a higher form of treatment. It is assumed to be completed before 2030. The water quality in Western Buffer, North Western and Southern WCZs will all benefit from implementation of HATS Stage 2B in terms of reduction of nitrogen level and organic pollutants.
- 12.2.11 Similar to the time-frame of 2020, the local pollution load discharged to Deep Bay, North Western and Southern WCZs will be significantly reduced. The background pollution level from the Pearl River and the Shenzhen catchment will be, relatively speaking, more influential than the local sources to the water quality in those WCZs.

Noise

- 12.2.12 A broad-brush strategic noise assessment was conducted for the Reference Scenario. Under the baseline condition, the population exposed to a traffic noise level above 70dB(A) is about 1.15 million (16.9% of the existing population). Noise exposure levels are very much related to the traffic volume. Our assessment finds that the total forecast traffic volume in the afternoon peak in 2010 is about 1.8 million vehicle km, which represents an increase of 6.2% over the figure of the Base Year. Therefore, the population exposed to traffic noise impact will generally increase in 2010.
- 12.2.13 As for geographical distribution, there will be an increase in traffic volume of 2% to 25% in most districts. Significant increase in traffic volume of over 20% is envisaged in the Islands, Kwai Tsing and Southern districts. The resultant traffic noise levels will therefore be on a rising track. Nevertheless, it should be noted that the traffic flow pattern varies from road to road. The degree of change in traffic noise will depend on the changes in traffic flow patterns at each road section.



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- 12.2.14 In the long-term period up to 2030, the population exposed to a traffic noise above 70dB(A) will increase to about 1.4 million, or 16.6% of the total projected population (decreased by 0.3% compared with the corresponding figure of the Base Year). Nevertheless, as more people may be affected by noise impact in absolute terms, careful and early thoughts to minimise the noise problems would be needed, for example, the consideration of depressed roads and environmentally friendly transport systems.
- 12.2.15 In general, the traffic noise issue should be properly addressed at the NDAs and the North Lantau New Town development, particularly if there are any proposed residential developments or other sensitive users located near major strategic roads. Each having a site area of over 20 hectares, the NDAs and the North Lantau New Town Development would need to be subject to Environmental Impact Assessments (EIA) in accordance with the EIA Ordinance. The potential traffic noise impacts on the future residential or other developments should be quantitatively assessed and noise mitigation measures should be incorporated as part of project implementation.

Ecology

- 12.2.16 Before 2010, the housing and business developments/ redevelopments will mainly be located within the existing built-up areas, hence we do not expect there will be significant impact on our ecological attributes. For strategic transport networks like the Lok Ma Chau Spur Line (LMCSL), SWC and DBL, mitigation measures in the form of compensation of important habitats or adoption of the most ecologically acceptable option have been used to minimise the ecological impacts.
- 12.2.17 The key terrestrial ecological issues associated with the Preferred Development Option relate to the development of NDAs and the major cross-boundary transport infrastructure. For instance,



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proposed development sites of the Kwu Tung North NDA may be located near the freshwater habitats of Long Valley, whilst the further strengthening of linkage between Hong Kong and the Mainland as well as the associated opening up of the Closed Area will unavoidably put pressure on the previously untouched habitats along the boundary.

- 12.2.18 To enhance the conservation of ecologically important sites under private ownership, new measures have been introduced under a pilot scheme recommended under the review of the nature conservation policy, viz. the management agreements and public-private partnership schemes. It would also be possible to identify areas within the NDA schemes (e.g. at Long Valley) for habitat enhancement to compensate for any loss. To minimise impacts of NDA development that may lead to fragmentation of habitats, consideration could also be given to the provision of open spaces in village areas which could act as corridors for animal movement.
- 12.2.19 Likewise, railways under planning such as the Northern Link and the Express Rail Link that pass through ecologically valuable land in northern New Territories may lead to habitat loss. Proper alignment selection and the underground option should be duly considered in the early planning stage.
- 12.2.20 In respect of marine ecology, the key issue will be the final decision on the location of the new container terminal. Whilst the South West Tsing Yi Option is considered to be a less ecologically sensitive location, the North West Lantau Option may potentially have adverse impacts on the ecological resources at the western end of Lantau, in particular the habitats of the Chinese white dolphins.
- 12.2.21 Moreover, the possible cumulative effects of the airport expansion, the new container terminal (in particular if the North West Lantau Option is selected) and the proposed Hong Kong-Zhuhai-Macao Bridge should be thoroughly assessed and mitigated as appropriate.

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Heritage

- 12.2.22 When formulating macro planning proposals under the Preferred Development Option, it may not be appropriate to exclude individual historic or heritage buildings/sites which are of a small scale, but the principle is that their conservation value should be fully recognised at more detailed levels of planning. For example, on individual projects like the SWC development, an archaeological survey undertaken



as part of the study has identified Ngau Hom Shek Beach as a site of cultural heritage such that a rescue excavation needs to be carried out before commencement of works. In the DBL proposal, the relocation of the Tao cemetery has been recommended.

- 12.2.23 For the long-term period up to 2030, our primary conclusion is that whilst the impacts to cultural heritage and archaeological resources (from NDAs, urban renewal or other residential and infrastructure projects) are amenable to mitigation, further detailed examination on the planned developments is required to ensure that any sensitive areas/sites are suitably taken care of.

Landscape

- 12.2.24 According to the study findings of various transport infrastructures to be completed before 2010, given the proposed mitigation measures, the residual landscape and visual impacts are considered acceptable.
- 12.2.25 In the medium to long term, the key landscape and visual issue relates to the fundamental change in landscape character arising from the proposed NDA developments. The layout of NDA should be properly designed to preserve the important landscape features. Other mitigation measures such as landscape planting and stepped building heights should also be considered.

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Energy

- 12.2.26 Increase in population and economic activities will lead to a higher consumption of energy. However, in view of the efforts on promoting less use of energy and improved technology which allows better energy efficiency, per capita consumption of energy is expected to fall. The rail-based development pattern adopted in the Preferred Development Option will generally reduce the consumption of fuel.
- 12.2.27 Overall speaking, energy consumption will continue to increase. We need to explore the use of “clean energy” sources and environmentally friendly measures such as district cooling systems, wind or solar power in lieu of conventional energy sources, although some of these options, limited by costing and stage of development, are less attractive at present.

Potentially hazardous installations

- 12.2.28 No new potentially hazardous installations (PHI) is planned before 2010. Regarding the development of NDAs in the medium term, there is no PHI located close to or within the Hung Shui Kiu NDA. The Fanling North NDA will extend to the consultation zone of the Sheung Shui Water Treatment Works. In order to comply with the risk guidelines, this overlapping portion will need to be limited to low-density developments, and sensitive users such as schools and hospitals should not be located there.

Waste

- 12.2.29 Generation of Municipal Solid Waste (MSW) is proportional to the size of population and its economic affluence. Per capita waste generation has levelled off in recent years, but for it to actually fall would require community-wide devotion to the practice of waste avoidance, reduction, reuse and recycling. Therefore, the quantity of MSW is likely to continue to rise in line with the population growth, unless stronger waste reduction measures, such as a charging scheme for MSW, can be implemented.

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- 12.2.30 Construction and demolition (C&D) material still forms a significant part of the total solid waste, although the introduction of the Construction Waste Charging Scheme in end-2005 has resulted in a noticeable reduction in the amount C&D waste disposed at the landfills. Export of C&D material to the Mainland as reclamation fill has commenced and it is anticipated that the existing Fill Banks (stockpiles of C&D material in Hong Kong) will be emptied by 2010.
- 12.2.31 Aiming at promoting growth of the waste recycling and environmental industry of Hong Kong, an EcoPark is being constructed at Tuen Mun, and all phases are expected to be in operation before 2010. Although no other municipal waste management infrastructure is planned for this time-frame, the availability and capacity of the existing infrastructure is sufficient to deal with the projected increase in waste in the short term.
- 12.2.32 In the medium to long term, even with the fall in per capita waste generation brought about by successful adoption of waste avoidance, reduction, reuse and recycling measures, the overall quantity of MSW is expected to continue to rise with the population growth.
- 12.2.33 We anticipate that implementation of more waste management infrastructure will be necessary before 2020. These may include expansion of the EcoPark, extension of the three existing landfills, and use of new Integrated Waste Management Facilities that incorporate a variety of technologies to reduce the quantity of waste ultimately requiring disposal. To complement this infrastructure expansion, further institutional arrangements, including Producer Responsibility Schemes for key waste types, comprehensive waste charging and landfill bans, may need to be implemented.
- 12.2.34 C&D material will continue to form a significant part of the total solid waste generated in Hong Kong. The delivery of this material to the Mainland as reclamation fill will continue if it proves to be technically and financially viable, and therefore disposal within Hong Kong is likely to be less of an issue.

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Economic/Financial

- 12.2.35 The main evaluation criteria adopted in our economic/financial assessment is to enhance Hong Kong's potential for economic growth and ensure efficient use of resources.
- 12.2.36 The economic and financial assessments conducted in Stage 4 of the HK2030 Study re-affirmed that the financial cost of the proposed infrastructure development to the Government can be, in broad terms, recovered by the revenue return, subject to further detailed assessment. Implementation of the NDAs in the New Territories might bring about some economic cost for using the rural land resources. With respect to the future port development, the analysis concluded that both possible locations, i.e. Northwest Lantau and Southwest Tsing Yi, have their benefits given their close proximity to the proposed Hong Kong-Zhuhai-Macao Bridge and the existing container terminals in the Kwai Tsing District, respectively.
- 12.2.37 Overall speaking, the Preferred Option would enhance Hong Kong's economic competitiveness through the provision of adequate land for CBD Grade A offices, general business uses, special industries, development of NDAs and new strategic transport infrastructure and an additional container terminal.
- 12.2.38 Although there is no quantitative data on the number of jobs to be created during the construction and operation stages of the proposed developments, it will likely help reduce the unemployment rate in the medium to long term when they are implemented. Moreover, the HK2030 Study has assumed a higher intake of talent and skilled workers after 2021 to fill the shortfall of workers against the projected employment. This implies a boost to the quality of manpower for Hong Kong which will have positive impact on its long term economic growth.
- 12.2.39 With the proposed developments, it is expected that private rent and prices (especially for the mass housing market) will be stabilised in the long run as a result of adequate housing supply in the market with the NDA development, further development of new towns and urban renewal projects to meet long-term housing needs.

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Land Use Planning

- 12.2.40 Ensuring optimisation in land use pattern which can meet various land requirements has been adopted as the overall evaluation criteria in the assessment on land use planning. The results with respect to five specific criteria are set out in the following paragraphs.

Provision of land to meet housing and various development needs

- 12.2.41 The Preferred Development Option can adequately provide land to meet housing and various development needs. This option has also struck a balance between the Consolidation and Decentralisation Options in terms of the sources of land supply.



These sources include land reserves within the built-up areas, some rural degraded areas, as well as redevelopment. A higher diversity in sources of land supply could minimise the uncertainty in land provision both in terms of timing and quantity.

Provision of infrastructure facilities to meet various development needs

- 12.2.42 The strategy proposes that different timing approaches should be considered for different uses. For example, it is suggested that provision for major infrastructure should be made reasonably ahead of demand, whereas the delivery of housing and accommodation for economic uses should best be left to market forces. Only uses that are land-extensive and for which demand is highly unpredictable should landbanking be considered. This is a flexible and robust way to ensure infrastructure facilities are available in time to meet various development needs.

Distribution of employment and housing land

- 12.2.43 As an increasing proportion of our population lives in the New Territories, the continuous concentration of employment opportunities in the urban areas (though slightly reduced in terms of percentage

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in the long term) will necessitate longer travelling time and could overburden the transport networks. On the contrary, in considering decentralisation of employment, we should have full regard to the agglomeration tendency of office and business uses. We therefore need to strive for a balanced distribution of employment and housing land. The primary objective should be to decentralise some of the future employment land to Kowloon and the New Territories.

- 12.2.44 The Preferred Development Option has recommended the creation of prime office clusters at West Kowloon and Kai Tak. A major portion of the future new office supply, through redevelopment of existing industrial buildings, will be provided in the Metro Area near the urban fringe. Besides, land is also reserved in the Ping Che/Ta Kwu Ling NDA for special industry development. Wider dispersal of the employment land could help achieve a more balanced distribution in employment and alleviate the burden on the cross-harbour transport routes.

Segregation of incompatible land uses

- 12.2.45 While a strategic plan may not be able to tend to detailed segregation of incompatible land uses, the definition of “no-go” areas can help to a certain extent to achieve such segregation. In formulating the Preferred Development Option, we started by screening out the “no-go” areas from our potential development options. A great portion of these “no-go” areas consists of vulnerable conservation areas, including marine and country parks, sites of special scientific interests, and wetland as well as their associated conservation/buffer zones. Optimisation of the existing built-up areas combined with development of moderate- scale NDAs could enable us to minimise the negative impacts on these important ecological attributes.
- 12.2.46 By the same token, potentially hazardous installations (PHI) have been avoided as they are also classified as “no-go” areas. Developments in the proximity of these PHIs have all along been subject to stringent requirements. Since the Preferred Development Option has not recommended en bloc or large-scale development of industrial areas for residential uses, it would minimise the creation of further residential/industrial interface problem.

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Socio-economic Linkage with the Mainland

- 12.2.47 The Preferred Development Option will involve enhancement of the cross-boundary infrastructure which will help strengthen the socio-economic linkage with the Mainland.
- 12.2.48 Moreover, development of NDAs in northern New Territories and the possible development in parts of the Closed Area (subject to separate studies) could also serve as “gateway” developments, thereby improving cross-boundary linkages.

Social

- 12.2.49 The overall evaluation criterion of the social assessment is to ensure access to major facilities and to foster community bonds. A summary of the results corresponding to each of the five specific criteria is contained in the following paragraphs.

Population density

- 12.2.50 Under the Preferred Development Option, about 40% of the new population will be accommodated in the Metro Area. Coupled with the continuously decreasing trend in household size (from 3.0 down to a projected level of 2.6 in 2030) and a focused approach in the reduction of development intensities, we would expect that the Preferred Development Option could bring about a mild reduction in population density especially in some of the older urban districts.

Employment opportunities

- 12.2.51 Development of NDAs and new strategic infrastructure will increase the employment opportunities. Although there is no quantitative data on the number of job places to be created during the construction and operation stages of the proposed developments, no doubt it will help reduce the unemployment rate of Hong Kong in the medium to long term when they are implemented.

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Land use mix at the community level

- 12.2.52 Under the Preferred Development Option, there will be a higher mix of different land uses both in the existing urban areas and the NDAs. Proper mixing of different types of land uses at the neighbourhood level would not only shorten travelling and help relieve the burden on the transport infrastructure, a higher mix of land uses, notably office/commercial and residential uses, could also bring in round-the-clock vitality to the local community.

Provision of employment opportunities close to home

- 12.2.53 Under the Preferred Development Option, the projected population growth in the New Territories will be higher than that of the Metro Area, thereby increasing the proportion of New Territories resident from the current 40% to 45% of the total usual residents in 2030. Employment opportunities in the New Territories will rise from 23% to 28% over the same period. Taking the two sets of figures into perspective, there will be a general improvement in the distribution of resident workers and employment opportunities.

Number of persons affected by urban renewal and clearance

- 12.2.54 In meeting the housing requirement of 924,000 units up to 2030, a relatively low proportion of the potential supply will come from redevelopment of private housing under our Preferred Development Option. The number of persons affected by urban renewal and clearance, and therefore the potential disruption to the existing social networks, should be kept to the minimum. As illustrated in Chapter 13, while the Urban Renewal Authority will continue its role in facilitating redevelopment, more emphasis could be placed on rehabilitation to prolong building lifespan.

Transport

- 12.2.55 The overall evaluation criterion of our transport assessment is to ensure a safe, reliable, efficient, economically viable and environmentally friendly transport system to enhance mobility within Hong Kong and across the boundary. Four specific evaluation criteria

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were drawn up and the results are summarised in the following paragraphs.

Usage of public transport services

- 12.2.56 The majority of cross-boundary passengers, about 96%, are at present using public transport services as there is a stringent restriction in the use of private cars as imposed by the Mainland and Hong Kong authorities. With the opening of the SWC in 2007, we can expect that some relaxation will be implemented at a later stage, given the increase in capacity and closer economic integration. By assuming abolishment of the cross-boundary private car quota system in the long term, and using the travel characteristics as revealed in the Travel Characteristics Survey (TCS) carried out in 2002, we project 13% of cross-boundary passengers would use private cars in 2030. This is comparable to the Hong Kong domestic utilisation of 12.8% as revealed in the TCS. However, given the considerable proportion of cross-boundary travel is of business nature (54% of the total trips by 2030), the 13% modal share is only a conservative estimate.
- 12.2.57 The recent trend in cross-boundary rail passengers shows a steady decrease from 75% in 2000 to 55% in 2005. This trend is forecasted to continue but at a lower rate as Mainland rail schemes begin to come into operation progressively from 2010 onwards. By 2010, the share of rail usage would mildly drop to 52%. With the proposed ERL and the NOL, the rail share is expected to stabilise at around 49% by 2030.
- 12.2.58 Within Hong Kong, travel by car will be maintained at a low level of about 12% throughout the planning horizon, similar to the current situation. With the completion of various railway projects like the Shatin-Central Link, the rail share is expected to rise from 30% in 2002 (as revealed in the TCS), reflecting results of the integrated land use-transport planning approach in encouraging rail use.

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Travel distance and time

- 12.2.59 The planned HZMB will greatly shorten the travel distance and time to the West Bank of the Pearl River. A trip from Central to Zhuhai will be shortened by 95 km or 1.5 hours. Similarly, a journey to Guangzhou on the ERL can be made within an hour, reduced by 45 minutes. Moreover, with the through-train services via the Jing-Guang Passenger Rail Line and Hang-Fu-Shen Passenger Rail Line, travel to cities outside the Guangdong Province can be greatly shortened, e.g. a trip to Beijing could be reduced by 12 hours.
- 12.2.60 Within Hong Kong, there will be a higher proportion of the population living in the New Territories – 45% of the total usual residents in 2030 as against 40% in 2003. In parallel, there will more employment opportunities in the New Territories, rising from 23% to 28%. There will be a general improvement in the ratio between resident workers and employment opportunities within individual districts (except on Hong Kong Island, particularly at the CBD). Due to the continual dominance of Hong Kong Island in providing employment and therefore generating more cross-harbour trips, a general increase in travel distance and time is expected.
- 12.2.61 During the morning peak period, the average travel distance of private-car trips is estimated to increase gradually from 8.5 km in 2003 to 9.0 km in 2020 and maintain at such thereafter, i.e. an increase of about 6%. Associated with this is a corresponding increase in journey time from 21.2 minutes in 2003 to 23.1 minutes in 2020, and further increase to 27.4 minutes (29% increase) in 2030 if the fourth harbour crossing is not in place. With additional cross-harbour infrastructure, the average journey time could improve to 26 minutes. However, given the growth in total person travel of some 34% throughout the planning horizon, such increase in travel distance is considered to be relatively insignificant.

Walking and cycling as mode of commuting

- 12.2.62 Based on the TCS findings, the major deterrence factor to walking or cycling is “unsuitable weather” and “lack of cycling tracks”. It therefore suggests that people would be more willing to walk longer distances

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under weather-proof conditions or with the provision of pedestrian-aid facilities, such as travellers.

- 12.2.63 The TCS also reveals that those living in rural New Territories tend to cycle more often (compared to urban-area dwellers), mostly for leisure/recreation purpose, but about one-tenth do cycle to work. Improvements to the pedestrian environment and encouragement of mixed use developments proposed under the HK2030 framework will help to facilitate more walking and cycling.

Requirement for new transport infrastructure

- 12.2.64 The close interaction between Hong Kong and the Mainland has been driving the increase in cross-boundary travel. It is estimated that by 2030, daily two-way cross-boundary passenger and vehicle trips would reach 1.3 million and 0.18 million respectively, 3 and 4.5 times over the figures for 2005. To sustain such growth, it is necessary to have the HZMB and ERL in place by 2020. As the four road-based control points between Hong Kong and Shenzhen may face a congestion problem in the long term, to alleviate and to enhance the connectivity between Hong Kong and eastern region of Guangdong, it would be necessary to increase the capacity either through expanding the two existing control points (i.e. Man Kam To and Sha Tau Kok) or to plan for a new crossing, i.e. the Liantang/Heung Yuen Wai control point together with new connector roads.
- 12.2.65 By 2010 with all committed projects, the existing capacity problem at the east-west corridor along the north shore of the Hong Kong Island and across central Kowloon particularly along the Gascoigne Road Flyover/Chatham Road corridor will still remain. Projects like the Central-Wanchai Bypass, widening of Gascoigne Road Flyover and Route 6 (consisting of the Central Kowloon Route, Trunk Road T2 and Tseung Kwan O-Lam Tin Tunnel) are required to alleviate the congestion.
- 12.2.66 By 2020, there will be major increase in traffic along the corridors between Northwest New Territories (NWNT)/ Northeast New Territories (NENT) and the Metro Area. To meet this demand and to alleviate congestion along the east-west corridors on Hong Kong

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Island and at central Kowloon, the following new infrastructures are needed:

- (a) Central-Wan Chai Bypass and Island Eastern Corridor Link;
- (b) Central Kowloon Route, Trunk Road T2 and Tseung Kwan O-Lam Tin Tunnel (Route 6);
- (c) Widening of the Gascoigne Road Flyover;
- (d) North-South Link between NWNT and North Lantau³;
- (e) Lantau Road P1;
- (f) Shatin to Central Link;
- (g) Kwun Tong Line Extension;
- (h) ERL and NOL; and
- (i) West Island Line and South Island Line (East).

12.2.67 By 2030, the cross-harbour movement will have serious capacity problem. Consideration should be given to the provision of an additional harbour crossing before 2030. To address the possible traffic congestion problems along the corridors between Lantau/NWNT/NENT and the Metro Area, consideration of the Tsing Yi-Lantau Link and the Eastern Highway (Fanling to Kowloon section) would be warranted.

12.2.68 As for cross-boundary infrastructure, to meet medium and longer term needs, attention will be needed on the following aspects:

- (a) speed up development of the Express Rail Link (ERL);
- (b) study the feasibility of connecting our network with the PRD Inter-city Rapid Transit System, which targets to link various PRD cities within one hour's travelling time; and
- (c) study the feasibility of providing an additional control point at Liantang/Heung Yuen Wai, together with a new connector road system (the Eastern Corridor).

12.2.69 Proposed transport infrastructure projects are detailed in **Annex VI**.

³ The NWNT Review has identified several packages of proposed roads to meet the demand. The choice will depend on the location of new port facilities, development of the airport, the degree of integration between Hong Kong and the PRD and the development of NWNT.

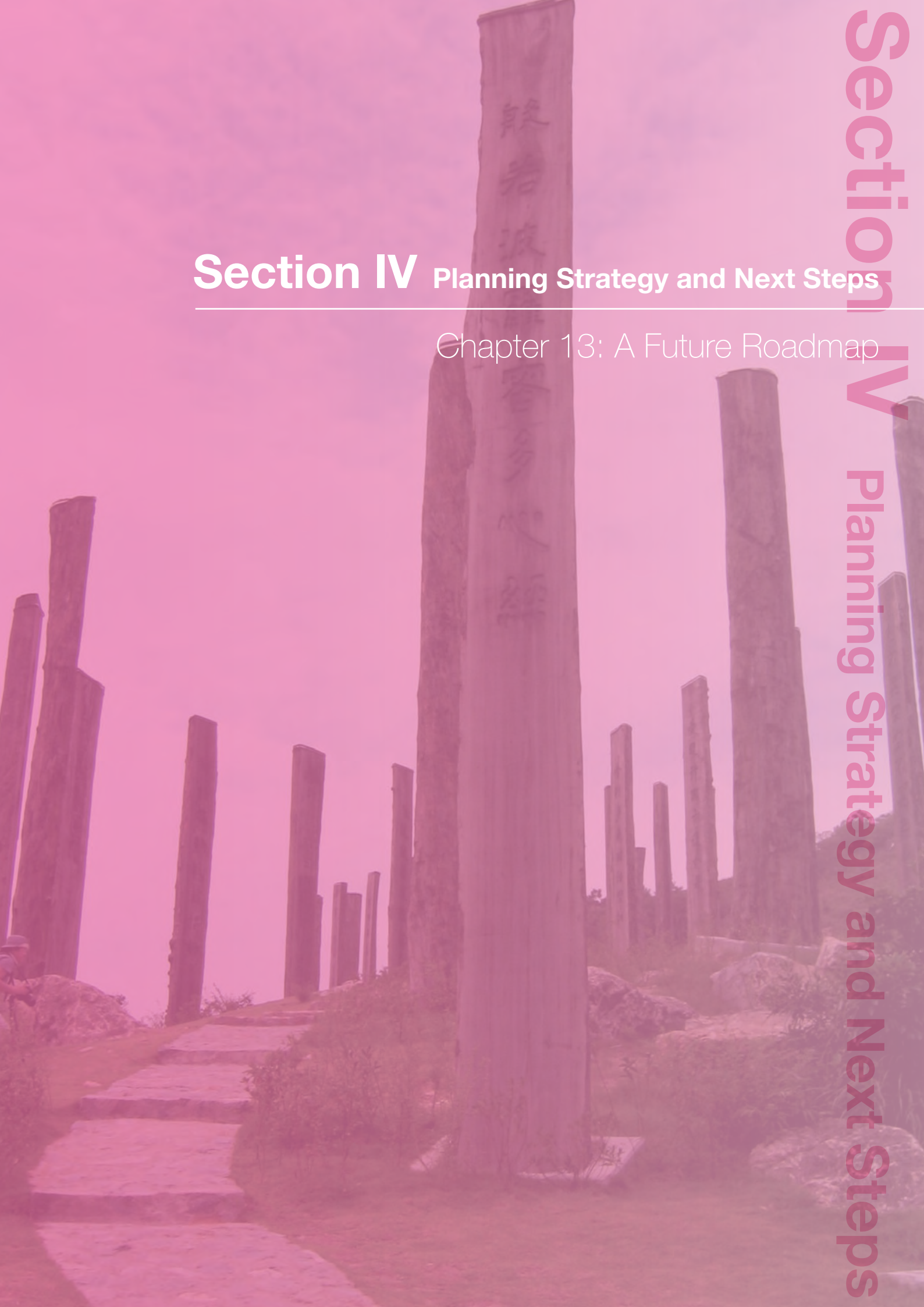
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12.3 Sustainability Assessment

- 12.3.1 As its overarching goal, the HK2030 Study has adopted the principles of sustainable development to balance social, economic and environmental needs to achieve better quality of life for present and future generations.
- 12.3.2 A preliminary sustainability assessment (**Annex IV**) conducted to examine the sustainability implications of the Preferred Development Option indicates that the option would help to realise our vision to develop Hong Kong as Asia's world city. The major proposals would provide for the necessary infrastructure to cope with our future population and economic growth. They would also help achieve a better quality living environment and enhance people's accessibility to various kinds of facilities. However, it is recommended that further sustainability assessments should be carried out when details of individual proposals have been worked out.

Section IV Planning Strategy and Next Steps

Chapter 13: A Future Roadmap



A Future Roadmap 13

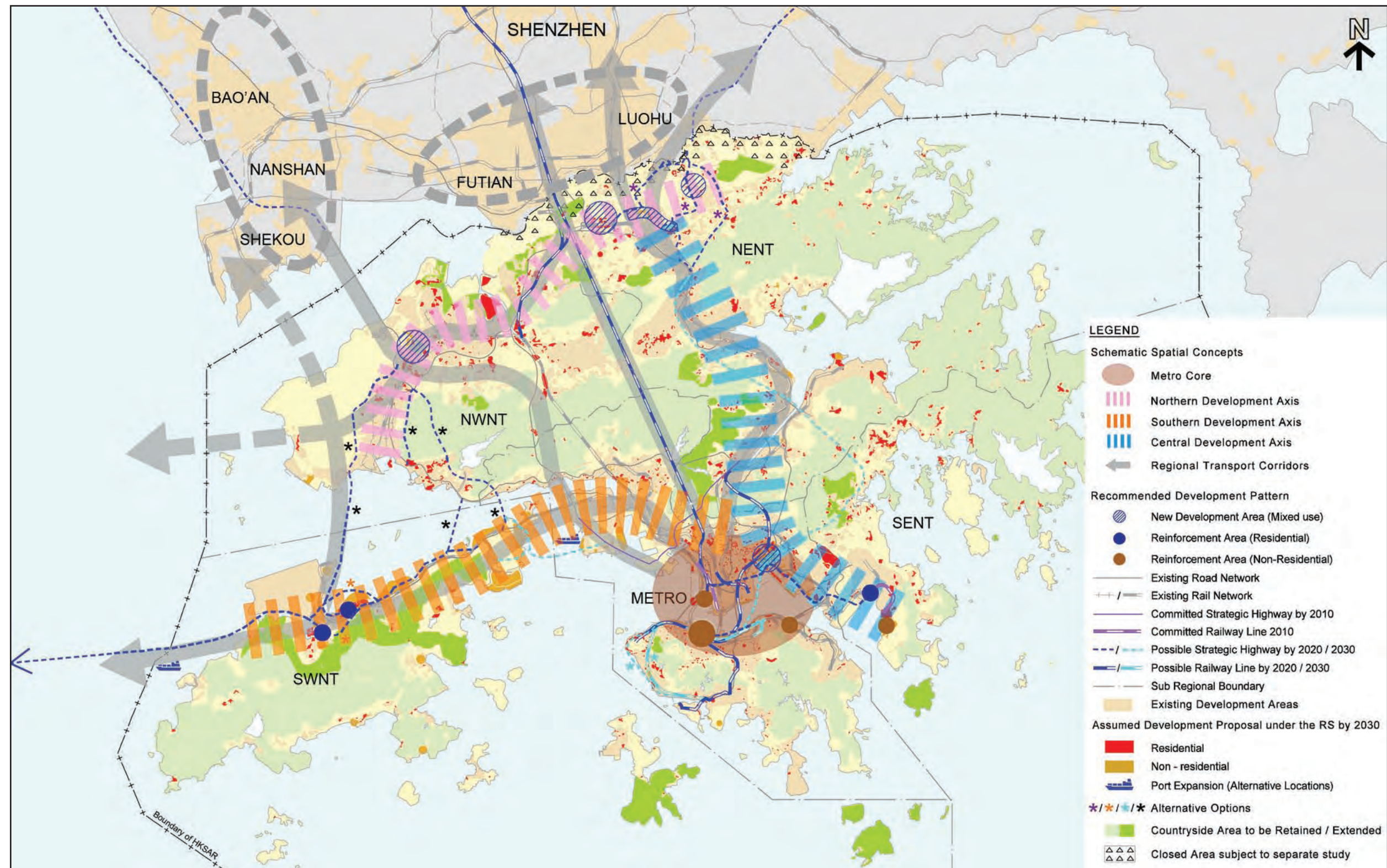
*“Then he ordered the crowds to sit down on the grass,
and taking the five loaves and the two fish,
he looked up to heaven and said a blessing.
Then he broke the loaves and gave them to his disciples,
and the disciples gave them to the crowds.
And they all ate and were satisfied.”*

- Matthew 14:19-20

13.1 Do More With Less

- 13.1.1 Based on the Preferred Development Option and results of the impact assessments, a Recommended Development Pattern (**Figure 13.1**) has been derived, embracing the overarching study goal for sustainable development and the spatial planning concepts and functions mentioned in Chapter 11.
- 13.1.2 Indeed, the HK2030 Study is tasked to formulate a planning framework that takes Hong Kong towards a more sustainable form of development. That means ensuring better quality of life for everyone, now and in the future. Other than balancing social, environmental and economic considerations, an important sustainable development principle is good resource management. This implies more efficient use of, among others, land and infrastructure – that we should carefully re-assess the capacities of our developed land and existing infrastructure to avoid unnecessary wastage; that a more innovative approach should be adopted to manage our needs; that we should be prepared and therefore plan for growth while ensuring that provision is made in a timely manner.
- 13.1.3 In the light of the trend for slower population growth, and in keeping with sustainable development principles, the direction for Hong Kong's future development is clearly to **do more with less** – to strive at better quality, higher efficiency while being prudent on resource utilisation and cautious about embarking on massive construction programmes on greenfield sites.

Figure 13.1 Recommended Development Pattern



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13.2 Placing Quality Over Quantity

- 13.2.1 Huge development pressure in the past few decades have compelled us to focus on opening up new land to meet housing and economic needs. Fulfilling quantitative requirement was indeed necessary to sustain the rapid economic growth and satisfy various social needs generated by a fast-growing population.
- 13.2.2 Nonetheless, community aspirations for provision in the public domain have changed. Meeting demand in quantitative terms alone is no longer sufficient as quality is seen to be as important as quantity, if not more. The trend for slower population growth and reduced housing pressure offers a good opportunity for us to gear towards improving the quality of provision.
- 13.2.3 However, the perception of quality differs among people and at different times. While it would be difficult to work out a definition acceptable to all, quality should be about the provision of products and services, and the establishment of a process of providing such that is continuously meeting the changing needs of users, with a standard beyond their expectations.
- 13.2.4 Applying this definition in the planning context, provision of a quality living environment could entail improving design, enhancing accessibility, respecting the environment, appreciating nature and heritage, encouraging good practice, boosting efficiency and augmenting co-ordination across policy areas, and such like.

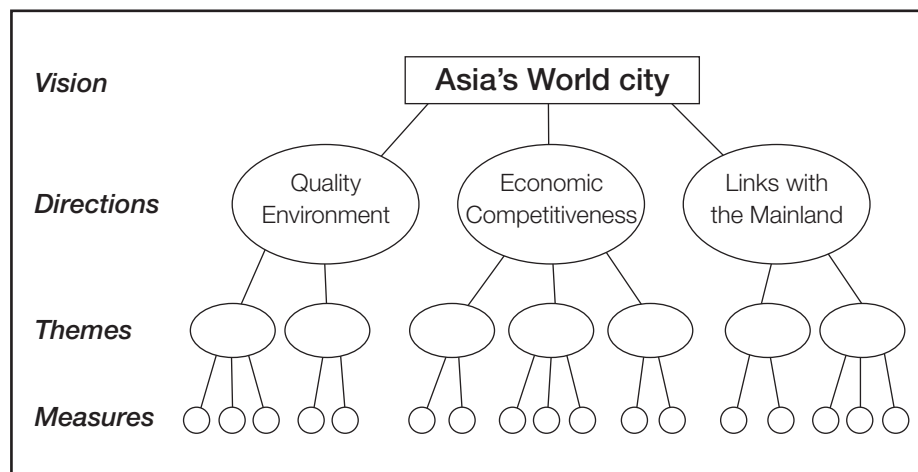
13.3 A Structured Strategy

- 13.3.1 The HK2030 Study is not meant to provide quick-wins or band-aid solutions to immediate issues. Rather, it serves to formulate a holistic and cohesive planning strategy that could lead ultimately to our vision and long-term objectives. In the absence of instant results, this strategy must be set out as a pathway with clear **signage** to indicate where it is taking us; **milestones** (or checkpoints) to monitor progress; and **escape routes** (or response plans) to allow us to slide easily into an alternative path when needed. The latter two will be discussed in Chapter 15. This chapter focuses on a roadmap that shows signage.

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- 13.3.2 To provide clear signage, the strategy would best be expressed in a stratified format of several levels: **directions**, **themes** and **measures**. The broad **directions** provide a succinct and easily comprehensible description of the major proposals to achieve our vision to strengthen our position as Asia's world city; the **themes** point more explicitly to areas of attention; and the **measures** describe the possible actions. Many of the proposals may not be innovative or even new. The importance is to lay them out in a cohesive manner to allow better understanding of the full picture.

Figure 13.2 Strategy Structure



- 13.3.3 At the highest level, the HK2030 Study, taking forward the recommendations of the Commission on Strategic Development¹ which were re-affirmed by the community through public consultations of the HK2030 Study, proposes that the planning strategy should focus on three broad and interlocking planning directions:

- Providing a quality living environment
- Enhancing economic competitiveness
- Strengthening links with the Mainland

These are further explained below.

¹ Commission on Strategic Development, February 2000, *Bringing the Vision to Life: Hong Kong's Long-term Development Needs and Goals*

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13.4 Direction I: Providing a Quality Living Environment

13.4.1 A quality living environment not only embraces social and environmental objectives but can help to attract and retain workers, especially the talented and skilled, needed to sustain our economic growth. Under this broad direction are four themes:



- I-A *Create a sense of place²* which could in turn foster a sense of identity and belonging, shared by all members of the community
- I-B *Smart use of space and the built fabric* to better utilise our limited resources so as not to compromise the ability of future generations to meet their needs, and to conserve more of our countryside areas
- I-C *Improve the environmental quality for healthier, greener and more pleasant surroundings* in which to live and work, and also as part of the global effort for the protection of the environment
- I-D *Ensure adequate and timely provision of housing land and supporting infrastructure and widen housing choices* – while quality is important, addressing quantity demand is still also an important requirement. This should tie in with the Preferred Development Option described in Chapter 11.

² Sense of place has been discussed in Chapter 4.

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Theme I-A Create a Sense of Place

Measure I-A-i Strengthen Local Character and Identity

- 13.4.2 A sustainable planning strategy is also a people-oriented strategy. Recognising that certain places hold special meaning to particular people or peoples, planning must aim to foster a sense of place to be meaningful. Places said to have a strong sense of place have a



strong identity and character that is deeply felt by local inhabitants and by many visitors. Sense of place is a social phenomenon that is dependent on human engagement for its existence. Such a feeling may be derived from the natural

environment, but is more often made up of a mix of natural and cultural features in the landscape, and generally includes the people who occupy the place.

- 13.4.3 Fostering a sense of place requires attention on two aspects – process and scale. The planning process should follow the sequence of “Communicate – Understand – Interpret – Plan”. This begins with engaging the local people to get their views, thereby understanding their needs and aspirations. Then, such thoughts are translated into spatial planning terms before being put together in a plan.
- 13.4.4 The scale of the plan is also important. A sense of place is generally identified for small neighbourhoods, although it could also be, though less often, associated with larger areas. Hence, a cellular approach with a local-area focus could ensure that a sense of place would be cultivated more effectively. In this regard, it is recommended that we should continue to undertake further local area improvement schemes, with the primary aim of creating a sense of place, among other objectives. This sense of place should not only apply to individual local-area schemes, but should be a theme that permeates across planning at all levels.

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Measure I-A-ii Plan for Diversity and Inclusivity

- 13.4.5 With a diverse and multi-cultural population, consideration should be given to diversity and inclusivity in the planning for services and facilities. For instance, the ageing population phenomenon may call for a review of the Hong Kong Planning Standards and Guidelines (HKPSG) to ensure adequate attention is given to people with different abilities and needs in the setting of provision standards and planning criteria of different public facilities. In line with government's policy of promoting integration of people with disabilities into the community, we would need to incorporate provision of suitable access and rehabilitation services and facilities for people with disabilities into the planning process for development and redevelopment. Moreover, in the design of buildings and public places, consideration needs to be given to applying universal design concepts to cater for a diversity of users, regardless of ability and age.



- 13.4.6 The provision of public housing is another area of concern. We are committed to providing affordable rental housing to families in need. Besides, public housing is generally viewed as having a function of enhancing social mobility and integration. The Hong Kong Housing Authority now operates over 680,000 public rental units and the number is on the rise. The continual demand for public housing creates a heavy financial burden on the public coffer and mounting pressure for identifying suitable land for new public housing development. Further studies will therefore be required in order to arrive at a resolution.

Measure I-A-iii Enhance Harmony and Balance of the Built Environment

- 13.4.7 Achieving harmony and balance of the built environment is an ancient art that seems to be receding from modern urban forms. Today, we still see silhouettes of Chinese cities built by emperors of the dynastic period who chose to have their capital laid out in adherence to the

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principles of feng shui – the art of living in harmony with nature. Similarly, the Golden Section was widely used in European built forms, as demonstrated in the Greek architecture of the Parthenon, the Renaissance architecture of Leon Battista Alberti's Santa Maria Novella in Florence, and Le Corbusier's various projects in his quest for modular designs of modern architecture, to name only a few. This Golden Section reveals that there could be a simple, yet fascinating, way to create building proportions that are balanced and harmonious with the surrounding environment.

- 13.4.8 In Hong Kong, years of rapid development has transformed our urban landscape many times in the general absence of stringent controls on the built form, other than the allowance provided under the Building (Planning) Regulations, and planning/lease restrictions which are only specified for certain sites. Such a process has contributed to issues like “sore-thumb buildings” in a low-density area, “wall effect” especially of waterfront developments, “flat-top” built masses (large-scale development with uniform building height and design), as well as the lack of view corridors and breezeways.
- 13.4.9 Many of these issues have been identified in the study on the “Urban Design Guidelines for Hong Kong” completed in 2003 and the “Feasibility Study for Establishment of Air Ventilation Assessment System” in 2005. As a follow-up of these two studies, new urban design guidelines were formulated for incorporation into the HKPSG in 2006, setting out ways of improving our physical environment in aesthetic and functional terms, at both macro and micro levels. Our strategy stresses the importance of observing these urban design guidelines in new developments as well as in the re-planning of old urban areas.

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- 13.4.10 Another attributing factor to the incongruous built form of developments could be the method of calculating permissible gross floor area (GFA) for a development. While the granting of bonus GFA (mainly for the dedication of public passage, capped at 20% of the permissible GFA), non-accountable GFA (mainly for ancillary facilities such as club houses, plant rooms, parking spaces), and the more recent allowance of exempted GFA for green features are all well justified in their own right, the cumulative effect could result in a large increase in building bulk. A proper balance is called for.
- 13.4.11 Buildings aside, attention should also be given to improving our overall urban landscape through enhancing of the open space network. An “urban ecology concept” could be considered by providing green links to connect existing parks and other public spaces through e.g. landscaped pedestrian walks and sitting-out areas.

Measure I-A-iv Respect Heritage and Cultural Characteristics

- 13.4.12 Our heritage helps define our cultural identity. Heritage resources can add variety to our cityscape, make our city a more attractive place and contribute to the development of cultural tourism.
- 13.4.13 While the heritage conservation policy may encompass the wider consideration of identification/categorisation of resources, the finance of conservation projects as well as educational programmes and such like, in spatial planning terms, three aspects require our special attention. First, to respect heritage and cultural characteristics we do not only preserve individual buildings, but should create heritage precincts that integrate protected buildings with its surrounding environment, thereby enhancing coherence, accessibility and visibility of the heritage items. This may not necessarily imply preserving a whole area or neighbourhood as a declared monument. Rather, it is purported that a compatible setting for the heritage buildings could be created through the application of appropriate planning measures.
- 13.4.14 Second, we also need to think of innovative ways of putting heritage buildings into adaptive re-use to enhance their social, cultural and economic benefits while not diminishing their conservation value.

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Recent projects of this kind include the Dr Sun Yat-sen Museum at Kom Tong Hall on Castle Road, and the Ping Shan Tang Clan Gallery and Heritage Trail Visitors Centre at the old Ping Shan Police Station. Such opportunities should continue to be identified.

- 13.4.15 Third, we need to consider preservation not only of the built structures, but streets and other urban elements of special character for the activities they hold, e.g. Lan Kwai Fong and Tai Yuen Street.

Measure I-A-v Cherish Our Natural Endowments

- 13.4.16 Stated as our nature conservation policy is “to regulate, protect and manage natural resources that are important for the conservation of biodiversity of Hong Kong in a sustainable manner, taking into account social and economic considerations, for the benefit and enjoyment of the present and future generations of the community.” To better protect Hong Kong's rich biodiversity, further efforts are needed, including the efficient management of our development footprint and sensible use of non-urbanised land for development. This is further discussed under Measure I-B-iii.



- 13.4.17 The Victoria Harbour is another important natural asset of Hong Kong. Other than refraining from further reclamation unless there is an overriding need, we should continue to plan for an attractive, vibrant and accessible harbourfront that is symbolic of Hong Kong and worthy of its title as Asia's world city.

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Theme I-B Smart Use of Space and the Built Fabric

Measure I-B-i Practise Three-Dimensional Planning

- 13.4.18 Traditional land use planning has largely been conducted on a two-dimensional basis, resulting in insufficient appreciation of the three-dimensional outcome of development proposals. Efforts in improving urban design of recent years (through undertaking various studies and preparation of guidelines) and developing computer tools have helped to foster a stronger sense of appreciation on this aspect among the community and practitioners, but conflicting objectives (such as the wish of developers to maximise the number of units with a good view) have frustrated actual application of the urban design concepts. We need to continue to foster a stronger sense of appreciation on good urban design among private developers, engender wider community awareness on its merits and promote good practice among professionals.
- 13.4.19 Apart from the visual angle, three-dimensional planning is also applicable to the use of buildings. Hong Kong is already a forerunner in providing mixed-use developments (e.g. the development of residential towers on a retail/utility podium separated by a landscaped deck is permissible under the “Residential (Group A)” (“R(A)”)³ zone on outline zoning plans), which is increasingly replicated in many parts of the world. Mixed-use developments help to promote a livelier ambience compared with areas which are homogeneously of office or residential uses prevalent in many overseas cities.
- 13.4.20 The advancement of information technology brings new ways of conducting business, e.g. through e-commerce and telecommunications, resulting in a new “work-live” relationship and lending support to the demand for a new form of residential-cum-work environment. While developers would likely

³ The “R(A)” zone is intended primarily for high-density residential developments. Commercial uses are always permitted on the lowest three floors of a building or in the purpose-designed non-residential portion of an existing building.

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prefer seeing maximum flexibility in zoning to accord with the swing of market demand, the downside of providing too much flexibility would be the possible result in incompatible land uses (e.g. the inability to protect residential uses from disamenities) and uncertainty in the planning for infrastructure.

- 13.4.21 The “Commercial/Residential” (“C/R”)⁴ zone is not a zoning tool best designed to achieve mixed-use development, nor is it a suitable mechanism to facilitate the “new style” of integrated mixed-use development mentioned above. Moreover, the differential plot ratio entitlement of domestic and non-domestic use under the Buildings Ordinance may also have influenced the choice of development under this zoning.
- 13.4.22 These issues which seem to be at odds require a new approach in planning. Perhaps a possible way out is to maintain control on the provision quanta of individual uses while allowing maximum flexibility in the design and layout of buildings to accommodate the various uses to suit different user needs. To this end, a new zoning for “mixed use” development has been introduced and first applied in the latest draft Kai Tak outline zoning plan. Should this concept turn out to be successful, it could be replicated in other localities as appropriate.

Measure I-B-ii Encourage Re-cycling of Land and Buildings

- 13.4.23 Economic restructuring in the past two decades has generated a substantial amount of surplus industrial floorspace. In response, we introduced the “Business” zone and relaxed the uses permissible in the “Industrial” zone in order to allow greater flexibility in the use of the surplus industrial buildings. We should continue to encourage re-cycling of developed land and re-use of buildings, and some new ideas have been explored under the HK2030 Study.

⁴ The “C/R” zone allows either a pure residential, pure commercial, or combination of uses of any proportion in a building.

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- 13.4.24 In the earlier rounds of public consultation under the Study, some members of the public suggested that the existing industrial buildings could also be re-used for residential uses. The concept of conversion of industrial buildings for loft apartments⁵, which are common in many overseas cities, was floated for further examination.
- 13.4.25 We subsequently carried out a study to explore the feasibility, with the assistance of case studies, of the concept. The case studies generally confirmed that conversion of industrial buildings to lofts is feasible in Hong Kong, but individual cases may be subject to issues related to the building regulations, industrial/residential interface and financial viability which need to be properly addressed.
- 13.4.26 Following the same philosophy, we also undertook another case study on the conversion of industrial buildings for elderly flats together with other facilities for old people. As elderly housing is residential in nature, the recommendations and development issues identified were similar to those for lofts. Apart from the above, the case study also concluded that the identification of the operating agency and the availability of tailor-made financial options in the market to help liquidise assets of the elderly would be critical to the success of the scheme.
- 13.4.27 The idea of providing lofts or elderly housing at disused industrial buildings through conversion was generally welcome by the community. However, for both products, it would best be left to the private sector to identify suitable opportunities, with Government maintaining its facilitating role.

Measure I-B-iii Contain Urban Growth

- 13.4.28 At present, only about 21% of Hong Kong's total land area is developed or urbanised, with another 2% occupied by rural settlements. The rest are mainly woodland, scrubland, grassland,

⁵ "Lofts" are units used for both domestic and work studio purposes in buildings originally constructed for industrial use. The key features are "home-cum-studio" style with large, free, open-plan living space, which provides the maximum flexibility for the occupants to create their own living spaces. Whilst lofts are usually occupied, in overseas cities, by special classes of people like artists, designers, writers or academics, it is proposed that lofts should be developed to suit the local context of Hong Kong, say, for one to two person-households, rather than families with occupants being able to work and live at the same time in a single space.

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farmland, reservoirs, barren land and other rural uses, including over 400 km² of protected country parks. Strict limitations on urban sprawl over the years have helped us maintain our city's growth in a sustainable manner. We should continue to contain our urban growth with prudent use of undeveloped land and avoid intrusion onto "no go areas". Under the level of growth currently assumed, we would recommend that the development of NDAs and major new infrastructure planned for the next 20 to 30 years should take up greenfield land of no more than 2% of Hong Kong's total land area.

Theme I-C Improve the Environmental Quality

Measure I-C-i Co-ordinate with Environmental and Other Policies

- 13.4.29 Sound environmental policies are the key to improving our environmental conditions especially with respect to air quality, quality of our various water bodies, the noise environment as well as waste management. These are in turn related to other policies such as transport, power supply and air and marine services. Moreover, we need to strike a proper balance to ensure that our development needs are met without doing unacceptable damage to the natural environment. Whilst good physical planning can contribute substantially to environmental enhancement, it certainly requires a comprehensive environmental strategy to fully address the identified environmental problems. The requirement of sustainability assessment (SA) for all major decisions of Government and the statutory requirement of environmental impact assessment (EIA) for designated projects (listed out in Schedules 2 and 3 of the EIA Ordinance) have been a major step in ensuring consideration of environment issues at the planning stage.

Measure I-C-ii Practise Good Land Use Planning

- 13.4.30 Our public transport system handles some 11 million passenger trips per day, 36% of which are taken by rail. As rail generally creates a lower environmental impact than road-based transport modes, it should continue to form the backbone of our public transport system, as recommended in the Territorial Development Strategy Review (TDSR) and the Third Comprehensive Transport Study

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(CTS-3). To encourage wider use of rail, we would encourage a development pattern with more development around the rail stations. This should be complemented by a feeder network of pedestrian and cycling paths as well as inter-modal changing facilities to enlarge the catchments of the rail stations. Moreover, the planning for mixed-use (“home-cum-work”) developments/areas could help to reduce trip demand and relieve congestion in the peak-flow direction.

- 13.4.31 Indeed overall speaking, decentralisation of employment-generating land uses could help to address some of our traffic problems. At present, some 77% of our employment is concentrated in the Metro Area⁶, while about 41% of the working population are residing in the New Territories. This necessitates long journeys to work and exerts heavy pressure on our domestic transport network, especially the cross-harbour routes. Apart from pursuing more rail-based developments, we should aim to, through various planning measures, bring more jobs to Kowloon and New Territories, in order to minimise traffic generation. For a start, relocating some of the current government offices to Kowloon or the New Territories could be considered.
- 13.4.32 It is also necessary to constantly review the need for new transport infrastructure. The building of new infrastructure involves huge capital and operating costs and may create environmental impacts. As we already have an extensive and sophisticated road and rail system, it is important that there should be a robust transport strategy to cope with different future circumstances while making best use of the available infrastructure. An integrated land use-transport-environmental approach will continue to be adopted in order to minimise the demand for travel and reduce the need for additional transport infrastructure.

⁶ Including Hong Kong Island, Kowloon, Tsuen Wan, Kwai Chung and Tsing Yi.

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Measure I-C-iii Encourage Better Urban/Building Design

- 13.4.33 With a high-density cityscape, together with a hot and humid sub-tropical climate, Hong Kong fundamentally needs more air movements for thermal relief and comfort and better hygienic conditions within the built environment. Following the completion of the “Feasibility Study for Establishment of Air Ventilation Assessment System” in 2005, we have promulgated a set of guidelines on facilitating air ventilation, listing out the key principles that need to be considered in planning for development at the district and site levels.
- 13.4.34 The guidelines are currently applicable to major government projects and plan preparation at the macro level. However, to encourage better urban/building designs that facilitate air circulation, the private sector is encouraged to observe the guidelines and undertake air ventilation assessment when embarking on new projects.
- 13.4.35 Building design is closely associated with energy consumption and sustainable living. Permitting better air ventilation could reduce the need for mechanised forms of ventilation and therefore energy consumption. While better building design conducive to sustainable living largely relies on private initiatives, we could create the conditions that foster a green and healthy living attitude/lifestyle, including the promotion of environmentally friendly building designs, materials and construction processes, provision of green roof-tops at government buildings and structures (and encouraging the private sector to do the same), provision of green landscape at public streets and places, creating better pedestrian environments to promote walking and planning of more cycling trails for short-distance travelling.

Theme I-D Ensure Adequate and Timely Provision of Housing Land

Measure I-D-i Consolidate Existing Development Opportunities

- 13.4.36 Although we have made assumptions on the long-term requirement for housing land, they should not be taken as targets to be met, as the actual demand in future will likely deviate from our current assessments. The crux is to maintain a good range of sources of

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land supply and closely monitor the demand and supply situation. A main source will come from development opportunities in the urbanised areas, viz. the Metro Area and the existing new towns. We need to tap the potential of unused sites, sites with obsolete uses (e.g. government and industrial uses) and sites that are under-developed – but careful consideration of their land use, development intensity and conservation value would be required.

- 13.4.37 Within the urbanised areas, apparent development opportunities would come from Kai Tak (recycled land) as well as the remaining areas of Tseung Kwan O (formed and serviced land), for which elaborate studies have been carried out to establish appropriate development densities and urban design concepts that could help to achieve overall balance and harmony of the built environment.
- 13.4.38 Similar to Tseung Kwan O, Tung Chung is only developed at this stage to about half its originally planned scale, but unlike the former, the remaining areas of this latest new town have not been formed or serviced. While economy of scale and infrastructure efficiency may seem to oblige further development of this new town, we need to study carefully the implications of developing (or not developing) it to its full scale, especially with regard to the environmental aspects and other planning considerations.

Measure I-D-ii Facilitate Urban Renewal

- 13.4.39 The Urban Renewal Authority will continue its role in facilitating urban renewal in accordance with the Urban Renewal Strategy and the “four Rs” (Redevelopment, Rehabilitation, Revitalisation and Reservation). Redevelopment projects should bring about a general improvement in the urban fabric, local environmental quality, and provision of government, institution or community facilities. More emphasis could also be placed on rehabilitation in order to prolong the building lifespan and reduce the immediate need for redevelopment. Revitalisation, on the other hand, helps to enhance vibrancy of degenerated localities without massive destruction of the original built environment, and therefore could help to achieve preservation objectives.

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- 13.4.40 Besides, consideration needs to be given to how to facilitate the land assembly process for private redevelopment through the Land (Compulsory Sale for Redevelopment) Ordinance. In considering any feasibility proposal, there is a need to strike a careful and fine balance between facilitating private development and protecting private property rights.
- 13.4.41 Improving the accessibility (e.g. expand the urban rail network, identify further projects similar to the Mid-Levels Escalators) of a locality could serve as catalysts for urban renewal through private initiatives. Proposed rail extension projects like the West Island Line and the Kwun Tong Line Extension are expected to provide impetus for renewal and gentrification of the old urban areas of Sai Ying Pun/Shek Tong Tsui and To Kwa Wan/Hung Hom respectively. Very often, enhancing the street environment through area improvement schemes/pedestrianisation projects, too, may also achieve a similar effect.
- 13.4.42 Urban renewal is not only about restoring/replacing derelict built structures in **form**, but may also concern reconsideration of the **use** of the buildings. For example, industrial buildings rendered obsolete in use by economic restructuring and government/institutional/community buildings which no longer serve their original purpose but are still structurally sound could be considered for a change of use through conversion and renovation without reconstruction. Planning efforts in rezoning and relaxing controls on industrial land in the past have helped to expedite transformation of a number of old industrial districts to office/business areas.
- 13.4.43 Other than conversion of old industrial buildings to loft apartments and elderly housing schemes mentioned above under Theme I-B, conversion to uses related to creative industries could be another option. In this regard, the on-going project of the renovation of the former Shek Kip Mei Flatted Factories to a creative arts centre will serve as an important milestone towards innovative reuse of obsolete industrial buildings.

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Measure I-D-iii Plan for New Development Areas (NDA)

- 13.4.44 To ensure a more balanced development pattern and provide a choice of living other than the high-density urban mode, it is recommended that low to medium-density nodal clusters should be developed in the New Territories around rail stations. This proposal could also help to optimise use of rail and other infrastructure, provide housing land (for public and private housing), upgrade the rural environment, revive the rural economy, create boundary/gateway towns, and introduce employment. New development areas should be comprehensively planned for a mixture of land uses, emphasising both the creation of a quality living/working space as well as resident/user convenience.
- 13.4.45 Such development opportunities have been identified in previous planning studies including the Territorial Development Strategy Review and the consequential planning and engineering studies for North East New Territories and North West New Territories. We have reviewed the various NDA proposals under these studies and have prioritised Kwu Tung North, Fanling North and Ping Che/Ta Kwu Ling (the Three-in-One Scheme) and Hung Shui Kiu for implementation (see Chapter 11 for details). In view of new circumstances and planning requirements, a planning and engineering review (including an environmental impact assessment) on the Three-in-One Scheme (the earlier of the two schemes) is recommended to be carried out as soon as possible, with a similar study for Hung Shui Kiu to start at a later stage.

13.5 Direction II: Enhancing Economic Competitiveness

- 13.5.1 The planning strategy will provide a spatial framework to co-ordinate with our economic policies to make Hong Kong a more prosperous city with robust and sustainable economic growth. Four themes have been developed under this direction:

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- II-A *Reinforce hub functions* by ensuring adequate land and infrastructure are available in time to support the growth of various economic sectors, especially high-value-added activities
- II-B *Revitalise degenerated* urban and rural areas to foster development of small businesses and encourage growth of creative enterprises
- II-C *Provide an environment conducive to human capital development*, both home-grown and imported
- II-D *Leveraging on our links with the Mainland* is still our “sure bet” in sustaining competitiveness of our economy

Theme II-A Reinforce Hub Functions

Measure II-A-i Ensure Adequate Supply of Land for Grade A Offices at Strategic Locations

- 13.5.2 Adequate supply of land for Grade A offices at the Central Business District (CBD) is needed to support the finance and business services sectors and to enhance Hong Kong’s attraction as a choice location for corporate headquarters functions. These activities have a tendency to agglomerate at the core business districts and demand the best locations in town. To ensure adequate supply of Grade A office land, especially land suitable for office development of the highest grade, we need to consolidate and upgrade the existing CBD on the one hand, and explore opportunities for the development of further prime-grade office nodes outside the CBD on the other (**Figure 11.2**). The specific objectives are:
- To allow the gradual release of planned office sites at the CBD in response to market demand;
 - To rezone suitable “government, institution, community” sites at the CBD for office use;

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- To facilitate further office development at Quarry Bay and West Kowloon, and reserve land in Kai Tak for the possible development of a high-quality office node in the longer term;
- To facilitate redevelopment by the private sector for the production of Grade A offices;
- To encourage decentralisation of office activities to secondary office nodes at the urban fringe (e.g. former industrial areas) to facilitate a filtering process;
- To free up spaces at private office buildings at the CBD currently occupied by government uses; and
- To enhance public transport accessibility, emphasise high-quality urban design and improve the public realm of the existing CBD.

Measure II-A-ii Facilitate Development for General Business Uses

13.5.3 In recognition of the increasingly obscured distinction between industrial and office (other than CBD Grade A offices) uses in Hong Kong, a new land use typology has been proposed for the purpose of forecasting future floorspace demand – “General Business”⁷.

13.5.4 General business uses are required to support growth especially of the trade and logistics sector dominated by small and medium-sized enterprises which contribute significantly to our economy and employment creation.

13.5.5 However, for General Business uses, we believe that there are adequate opportunities to generate further supply through redevelopment and conversion of the existing building stock without much need to reserve new sites for this purpose. To provide flexibility and facilitate redevelopment and conversion of obsolete industrial



⁷ General business uses include non-CBD Grade A offices, flatted factories, industrial/office uses and private storage use.

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floorspace to office and other uses, the “Other Specified Uses” annotated “Business” (“OU(B)”) zone was introduced in 2001 so that buildings within such zones can be used for both industrial and office/commercial purposes.

- 13.5.6 Currently, about 200 hectares of former industrial land have been rezoned to “OU(B)”. These are mainly located at the fringe of the Metro Area and have good mass transport connections. We will need to continue to monitor future supply and demand of both business and industrial uses and allow for further rezoning when necessary.

Measure II-A-iii Provide Flexibility for Special Industries

- 13.5.7 While low-value-added industrial uses tend to fade out from Hong Kong as they gradually move across the boundary, we still have a thriving industrial sector which is sustained through increasing labour and floorspace productivity. It is primarily in the technology, media and other service sectors that productivity changes have occurred in situ and it is here that high productivity space developments in Hong Kong such as the Science Park and Cyberport have been formed to help increase the added value and productivity of Hong Kong’s industry. Similarly, the Applied Science and Technology Research Institute (ASTRI) is also geared to upgrading the technology level of our industry and stimulating growth of technology-based industry in Hong Kong. The Science Park has promoted development of four focused clusters in electronics, information technologies and telecommunications, precision engineering and biotechnology. ASTRI has focused on four technology areas, namely communications technologies, consumer electronics, integrated circuit design and opto-electronics.
- 13.5.8 Spatial requirements for high-value-added industrial processes, with emphasis on special accommodation requirements and tailor-made design, are very different from those for traditional low-value-added industries – those which conventional multi-storey factories would fail to meet. Such needs could probably be accommodated at industrial estates or special industrial zones.

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- 13.5.9 Hence, to ensure a strong and diversified economic base for Hong Kong, we need a strategic reserve of land for special industries so that our infrastructure would not lag behind opportunities as and when they arise, and to cater for land-extensive operations or investments which are of major, if not strategic, importance to Hong Kong. As such, other than continuous revamping our existing facilities, i.e. the industrial estates, Science Park and Cyberport, we also need to seek out further opportunities for strategic land reserves suitable for special industries. We would recommend that these be incorporated as part of the NDA developments to be further studied.

Measure II-A-iv Enhance the Port and Airport

13.5.10



Hong Kong's port and airport serve as important infrastructure in support of our role as an international and regional transportation and logistics hub. We need to co-ordinate closely with the Port Development Strategy and Airport Masterplan, especially in enhancing the efficiency of the port and airport through improving the operation mode, enhancing connection with the hinterland, and advancing intra-regional co-operation. We need to monitor growth trends and plan well ahead for future airport and port expansions, if needed, to address possible future demand.

Measure II-A-v Improve Our Offer on Tourism

- 13.5.11 We should continue to enhance our tourism infrastructure and make better use of our many resources (including cultural/heritage, marine and other natural resources) to diversify our offer. This could help us develop niche markets and promote the fast-growing sectors of alternative tourism such as ecotourism and cultural tourism. We should also continue to work with our Mainland and Macao counterparts through the Hong Kong Tourism Board for the promotion of more multi-destination travel in the PRD region.

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- 13.5.12 In 2006, some 54% of the 25.3 million visitors to Hong Kong came from the Mainland. We expect that Mainland tourists will continue to contribute to a substantial proportion of our total visitors. It is therefore important that cross-boundary infrastructure, including connections by land, sea and air, control-point facilities and coach terminals etc., should be further enhanced.
- 13.5.13 Visitor accommodation also requires attention. Although the development of hotels is primarily market-led, we will maintain our facilitating role and continue to monitor the overall demand and supply.

Theme II-B Revitalise Degenerated Urban and Rural Areas

Measure II-B-i Revitalise Old Urban Areas

- 13.5.14 The loss of economic vibrancy and degeneration of an urban district are two interactive processes. Decreasing economic activities, whether a result of market or demographic changes, could result in reduced incentives for building maintenance and renovation. Dilapidated buildings in turn could make such a district unattractive to newcomers thereby further reducing the local economic activities.
- 13.5.15 Revitalisation aims at reviving both the economic and physical fabric of an old urban area. It may take the form of combined initiatives of redevelopment, rehabilitation and preservation. It may also be effected through a general improvement in streetscape or accessibility, which could trigger off private initiatives for rejuvenating a wide district. The Mid-Levels Escalators and the Times Square in Causeway Bay are good examples to demonstrate the catalytic



effects of a single project in the regeneration of a whole area. Hence, the merit of these projects should not be viewed solely on their primary objectives, but also their contribution to urban regeneration and overall social and economic benefits.

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- 13.5.16 Besides, older districts may be attractive to small and innovative businesses (e.g. specialty retailing, art studios or green industries) as they would find their rental levels more affordable. Re-introduction of commercial activities in the older districts e.g. Kennedy Town, Tai Kok Tsui and To Kwa Wan etc. would help kindle the gentrification process. We will recommend that urban revitalisation should be one of the factors of concern in the identification of further area improvement schemes/pedestrianisation projects.

Measure II-B-ii Revive Degenerated Rural Townships

- 13.5.17 Rural townships were among the earliest settlements in Hong Kong. They had once witnessed and harboured our major economic activities. Similar to some of the old urban districts, these rural townships have followed the process of degeneration as the younger generations move to the urban areas.
- 13.5.18 Despite rapid socio-economic changes in the past few decades, most of these rural townships have still maintained much of their rural characters, heritage features and sometimes even traditional living styles. Very often, areas endowed with rich landscape, ecological resources and heritage spots are within easy reach of these rural townships. These important features may be explored and suitably enhanced to revitalise the rural townships and sustain the local economy.
- 13.5.19 The Government is already taking steps to take forward the concept of revitalisation of rural townships. The Lantau Concept Plan completed in May 2007, for example, proposed to re-arrange and upgrade the uses surrounding the Mui Wo Old Town with a view to improving this traditional visitor gateway to South Lantau.
- 13.5.20 We will continue to instigate this kind of rural upgrading and revitalisation measures in other rural townships such as Tai Po Market Town, Sai Kung, Tai O, Lamma, Lau Fau Shan and Sha Tau Kok. Given the rich agricultural land resources in the vicinity, we could concurrently encourage organic farming and organic food processing in these areas for duo purposes of sustaining local economy and demonstrating the model of a sustainable lifestyle.

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Measure II-B-iii Promote Beneficial Use of the Rural Areas

- 13.5.21 Conservation and development have often been regarded as two poles in opposition, but it need not be so. There could be innovative ways of providing room for development not at the expense of our natural environment. The current nature conservation policy introduced in 2004 proposes, for example, a scoring system to assess the relative ecological importance of sites, and creation of management agreement and public-private partnership in conserving ecologically important sites under private ownership.

- 13.5.22 Earlier in 2001, the Planning Department completed a “Review of Rural Land Uses in Northern New Territories”. One of the recommendations was the introduction of the “Other Specified Uses” annotated “Rural Use” (“OU(RU)”) zone, with the main objective to preserve the rural landscape/character and to provide land for small-scale rural and passive recreational uses.

- 13.5.23 We have instituted the policy framework and planning mechanism to achieve better preservation of our rural areas. This forms the important foundation through which the private sector could come up with proposals to bring the rural areas to more beneficial use. Site amalgamation may also constitute a significant issue in private projects. We may need to look into the need, and if so mechanism, of facilitating land acquisition in the rural context.

- 13.5.24 Hong Kong’s natural resources are relatively accessible and harbour a rich biodiversity within a small area. These are our strengths rendering Hong Kong suitable for incorporating ecotourism and fostering the development of associated facilities such as ecolodges. At the same time, our villages and townships could help to promote cultural tourism, and indeed, the development ecotourism and traditional cultural tourism often goes hand in hand.

- 13.5.25 Though common many parts of the world, ecotourism is still rather novel to Hong Kong, contributing a minor sector of the tourism industry. Ecotourism involves travelling to natural destinations while creating minimal impacts on the environment. It offers a learning experience for the ecotourists and elevates their environmental

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awareness. Making use of sustainable/recyclable building materials, ecolodges provide comfortable accommodation that respects the natural setting. The operation of the ecolodges relies largely on environmentally friendly energy, water and waste systems, and could help open up a new market for such facilities. Nevertheless, true ecotourism demands full appreciation and respect of the natural environment by all concerned parties, including the developer (if facilities are involved), the operator and the tourist. This may require a thorough education process.

- 13.5.26 We recommend that, subject to availability of resources, further study on the concepts as well as overseas experiences could be taken, together with assessment on the pros and cons, feasibility and viability for application in Hong Kong. Concurrently, the concepts require wider promotion and the private sector is expected to take the lead in realising the concepts. Subject to favourable responses from the private sector, we could identify possible locations and review the planning mechanism and other controls, in co-ordination with the nature and heritage conservation policies, to enhance the implementation such concepts.
- 13.5.27 Another aspect of the rural environment that warrants special attention is the development of small houses. The continuous demand for small houses, coupled with the limited supply of suitable land, raises question on the long-term sustainability of the small house policy. Innovative means to address the issue would be needed.
- 13.5.28 The proliferation of open storage yards and informal workshops, many of which related to the port industry, is yet another issue of the rural area. As it is expected that port backup uses may gradually phase out in Hong Kong and move across the boundary with changes in Mainland customs policies, they may become less of a problem in the rural areas in the longer run. Meanwhile, the recommendations concerning port backup uses made under the previous NDA studies would be revisited under the proposed NDA reviews. This is especially important for Hung Shui Kiu, as the implementation of this NDA could affect quite a number of these uses. However, for those open storage

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and rural industrial sites not proposed for NDA or other development, appropriate measures will be needed to restore the defaced rural environment after the existing users have moved out.

Theme II-C Provide a Physical Environment Conducive to Human Capital Development

Measure II-C-i Provide a Good Living Environment

- 13.5.29 As the world advances towards a knowledge-based economy, cities compete intensely for talent and skills to support their economic growth. Hong Kong's ability to attract talent from the Mainland and abroad as well as to retain local talent is



dependent on the variety of development opportunities as well as the anticipated quality of life and quality of the living environment that our city is able to provide. Hence, our continuous strive to improve the living environment is not only for the benefit of our people, but could be seen as a means to strengthen our competitiveness and sustain economic growth.

Measure II-C-ii Strengthen Our Facilities

- 13.5.30 While the key to enhance education and training may well lie in the “software” side, we believe that there is room to strengthen our facilities for education and training to support development of our local human capital, as well as to attract overseas and Mainland students, thereby reinforcing Hong Kong's role as an education hub of Southeast Asia. To this end, opportunities for the provision of facilities for tertiary institutions and other education uses could be further explored. Provision of education facilities at the Kwu Tung North NDA will be examined in further detail in the recommended planning and engineering review study.

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Theme II-D Leverage on Our Links with the Mainland

- 13.5.31 It is well recognised that Hong Kong's future economic growth is very much hinged upon our relationship with the Mainland. How this can be achieved is further elaborated under the Direction III.

13.6 Direction III: Strengthening Links with the Mainland

- 13.6.1 Strengthening our links with the Mainland can be both a means and an end – a lot can be done to reinforce links with the Mainland while at the same time, stronger links could help us achieve the other planning objectives of enhancing our economic competitiveness and improving the quality of our living environment.
- 13.6.2 As our nation gradually establishes herself in the map of world powers, the future of Hong Kong may very much rely on how well we can position ourselves to capitalise on this development. With China's accession to the WTO, adoption of new policies to support economic growth as well as the implementation of CEPA, there is unparalleled opportunity for Hong Kong to benefit from the spin-off of Mainland's economic growth, through engagement in business activities or active participation in the various projects of the Mainland.
- 13.6.3 As a full strategy to promote links with the Mainland could be very encompassing and beyond the scope of this Study, we have focused on those areas pertaining to land use and infrastructure planning. The four themes under this direction are:
- III-A *Strengthen physical links* with the Mainland and improve efficiency of cross-boundary travel
 - III-B *Capitalise on the strategic locational advantages of boundary areas*

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III-C *Facilitate information exchange* and conduct regional studies to serve as a basis for planning of regional infrastructure and rationalising functions amongst cities of the PRD Region

III-D *Facilitate development of a “city-region”*

Theme III-A Strengthen Physical Linkages

Measure III-A-i Strengthen Regional Links

- 13.6.4 Hong Kong's economic success lies in maintaining smooth and unimpeded flows of people, vehicles, goods, information as well as money in and out of the territory. The movements of the first three are particularly relevant to land use and infrastructure planning.
- 13.6.5 Flows within the region are particularly important as they help to strengthen our position as gateway to China and China's springboard to the world. We should make effective connections, both on the hardware and software sides, to Mainland's transport networks and transportation system, in particular those within the PRD and the Pan-PRD regions. As there are plans to expand the highway and railway networks within these regions and to other parts of China, opportunities should be explored to hook up with their highway system, high-speed passenger rail lines, the PRD rapid transit system as well as domestic mass transit railway systems and major transportation nodes to provide direct, convenient and high quality services to enhance both passenger and cargo flows and expand our catchments to inland China. We should also develop an overall strategy for the development of cross-boundary transport infrastructure to look after regional development needs and support our economic growth.
- 13.6.6 There are a number of cross-boundary transport infrastructure projects being planned. The proposed Hong Kong-Zhuhai-Macao Bridge (HZMB), will serve the travel demand between Hong Kong and the western part of the PRD as well as cities and provinces further west through the expressway system in the PRD and Pan-PRD regions. The proposed Northern Link (NOL) and the Guangzhou-Shenzhen-Hong Kong Express Rail Link (ERL), together

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with the recently completed Lok Ma Chau Spur Line and the Hong Kong-Shenzhen Western Corridor, will provide sufficient rail and road capacity to cater for future demand between Hong Kong and cities north of Hong Kong along the east bank of PRD. With the extension of highway and railway networks from Shenzhen to Huizhou and further east of Guangdong Province, consideration should be given to develop a new crossing point at Liantang/Heung Yuen Wai to link up with the Eastern Corridor in Shenzhen and its highway system to facilitate eastward movements and strengthen regional connectivity to the east. To this end, studies have commenced, as described further below.

- 13.6.7 In addition, new cross-boundary rail links on the western part of the New Territories can be considered for development in the longer term: (i) to join up the PRD Inter-City Rapid Transit System on the eastern side of the PRD and (ii) to connect with the railway system on the western side of the PRD via the Southeast Coastal Railway Link or directly from Hong Kong via a separate rail link across the Pearl River Estuary.

Measure III-A-ii Strengthening National and International Links

- 13.6.8 Concurrently, Hong Kong needs to continue upgrading its networks at the national and international levels, the latter includes those within Southeast Asia and with other parts of the world. In this regard, improvements to our air and port services will be critical. At the same time, we need to ensure that our transport connections with the Mainland are well channelled to our airport and seaport to provide efficient interchange between our intra-regional and international networks. Co-operation with other airports and seaports in the region may also generate synergies.

Theme III-B Capitalise on the Strategic Locational Advantages of Boundary Areas

Measure III-B-i Identify Opportunity Areas in the Closed Area

- 13.6.9 The Lok Ma Chau Loop (the Loop) with an area of about 96 ha and located opposite to Shenzhen's Futian commercial area presents

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itself as a rare development opportunity. It offers good potential for commercial and high-tech development that would benefit Hong Kong's economy, making use of its strategic locational advantages to provide space for better integration between Shenzhen and Hong Kong. Pending resolution of the contaminated mud and other environmental/ecological issues, the development potential of the Loop could be further explored. The development potential of other parts of the Closed Area is being examined under the study on Land Use Planning for the Closed Area.

- 13.6.10 In addition, the potential of developing some of the scenic coastal areas in Northeast New Territories and along Mirs Bay on the Shenzhen side could be further explored together with the Shenzhen authorities. Similarly, opportunities for recreation and leisure uses at the islands near our western boundary (including Zhuhai's Wanshan islands, Hong Kong's Lantau Island) could be studied jointly with our Zhuhai counterparts.

Measure III-B-ii Plan for a New Heung Yuen Wai/Liantang Control Point

- 13.6.11 The establishment of a new boundary crossing and control point at Liangtang/Heung Yuen Wai on the northeastern side of Hong Kong between Robin's Nest (Hung Fa Leng) and Man Kam To has the following advantages from a strategic planning perspective:
- The current Man Kam To and Sha Tau Kok Control Points, being constrained by location and capacity of connecting roads, could only provide limited crossing capacity, necessitating substantial detour to the larger control points on the western side. A new control point at Liangtang/Heung Yuen Wai could help to provide a more balanced and efficient regional road network.
 - A new control point at Liangtang/Heung Yuen Wai may help rationalise the functions of the existing control points with Man Kam To and Sha Tau Kok.
 - The new control point may help Shenzhen realise their "East-in, East-out and West-in, West-out" transport planning principle for cross-boundary goods vehicular traffic, directing

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crossing-boundary traffic to the proposed Shenzhen Eastern Corridor leading to Huizhou and other parts of eastern Guangdong. In doing so, it will ease the related traffic congestion and environmental problems in the Shenzhen city centre and help reduce the repercussions of such problems onto our northern fringe. It will also speed up cross-boundary traffic to and from Hong Kong and help expand Hong Kong's economic hinterland in the eastern parts of Guangdong.

- 13.6.12 Currently studies are being carried out to address major issues like land use requirement, environment and transport and to ascertain the feasibility of the proposed development. They will also take into account the proposal for designating the nearby Robin's Nest as a country park raised in the Territorial Development Strategy Review. The future development of Heung Yuen Wai and its adjacent areas will be very much contingent upon the proposed development of the new control point.

Theme III-C Facilitate Information Exchange

Measure III-C-i Further Strengthen Information Exchange at the Government-to-Government Level

- 13.6.13 The setting up of an Expert Group on Hong Kong/Guangdong Town Planning and Development in 2004 has helped to promote more regular and extensive exchange of information and views on city planning and regional development in the process of conducting studies on planning and cross-boundary infrastructure projects, including the study on the "Co-ordinated Development of the Greater PRD Townships" (The Greater PRD Study) aimed at facilitating the long-term development of the Greater PRD Region. Moreover, an information platform on Hong Kong-Guangdong city planning is proposed to facilitate information exchange. We believe that such efforts could strengthen regional co-operation and should continue.

Measure III-C-ii Sharing of Experience

- 13.6.14 With Hong Kong's experience and knowledge in various sectors, especially our international perspective, we can share such

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experience and knowledge with our Mainland counterparts in an effort to support our country's further advancement. This can be accomplished through different formal and informal channels including the organisation of seminars, staff exchange programmes and running of training courses.

Theme III-D Facilitate Development of a "City-Region"

- 13.6.15 In the context of the evolution of the PRD Region as a multi-centred city-region, Hong Kong needs to recognise the synergy of co-operation and coordination. The Greater PRD Study could address some of the common issues between Hong Kong and the PRD Region with a view to formulating a regional strategy to the overall benefit of the Greater PRD Region, not only in relation to our economic strength, but also the environment and social harmony.
- 13.6.16 Maintaining a close relation with our most immediate neighbours, Shenzhen, Macao and Zhuhai, is of particular importance. We must recognise that as they make further progress in their development, our differences will become increasingly obscure. From the socio-economic angle, it is not unrealistic to assume that all could become one within the next decade or so. While current surveys indicate that most Hong Kong people do not aspire to relocate to the Mainland in the near future, this "**one region**" concept may change a few people's minds. There is therefore a higher likelihood for an even slower population growth, than that currently projected. This assumption could shift our overall strategic planning approach from the conventional mode (i.e. providing wide safety margins) as in our previous territorial planning exercises, to a more prudent way of thinking (i.e. avoiding over-planning).
- 13.6.17 Further rationalisation of economic functions could also be anticipated. While broadening the economic base is important, with the "one region" concept, this breadth in the long run may well be spread across the region, with Hong Kong assuming more focused functions. We therefore need to identify areas of highest comparative advantage and set out clear priorities in planning for our future growth.

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- 13.6.18 Rationalisation of economic functions also signifies rationalisation of land use, both in terms of exploitation of land resources for various forms of development, as well as the relationship between land use and the environment. For example, with better inventory planning and management as well as improved transportation, the need for warehouses locating close to the consumers may decline. We need to be particularly vigilant in exploiting new lands for development and constantly monitor the use of land for various purposes.

Section IV Planning Strategy and Next Steps

Chapter 14: What If...?



What If...? 14

“Uncertainty is the only certainty there is.”

— John Allen Paulos

14.1 Why Cater for Alternatives?

- 14.1.1 We are living in an uncertain world and changes happen in everyday life. Uncertainty is associated with the pace of economic growth as well as social and demographic changes which occur locally and globally. These changes are all integrated and share the similarity of being beyond our control. However, instead of avoiding changes, we should equip ourselves to expect and prepare for changes. In formulating a planning strategy spanning over decades, anticipating the potential range of future scenarios and assessing how well alternative plans can cope is not only useful but necessary.
- 14.1.2 In Chapter 8, a Reference Scenario (RS) is presented to describe how we envisage the future Hong Kong as we strive to meet our vision. The RS attempts to translate the vision into planning assumptions and set out how much of various broad types of land use is needed at different planning periods.
- 14.1.3 To ensure that our recommended strategy is robust enough to cater for different circumstances, a set of “What If” Scenarios have been developed (and set out in this chapter) to help us visualise some of the possible changes which may affect our planning strategy. Changes leading to deviations from the RS should not be taken to imply failure of our recommended strategy, but it certainly points to the need to establish a monitoring system to help detect the changes, as well as an effective mechanism to respond to unexpected circumstances as we move ahead. This is the “escape route” described in the previous chapter.

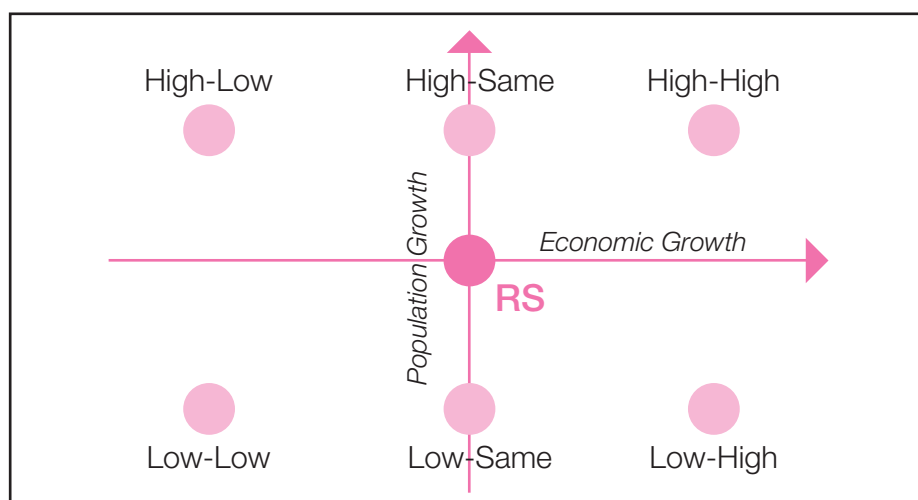
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What If...?

14.2 Derivation of “What If” Scenarios

- 14.2.1 “What If” Scenarios have been developed by varying key planning parameters under the RS. As the possibility of changes to the parameters can be numerous, we have focused on the assumptions which have direct and significant implications for the planning strategy and those that are more likely to happen in future.
- 14.2.2 Two key components, population and economic growth, are considered to be the most significant factors and therefore have been used to derive alternative scenarios. The extent of impacts of these alternative scenarios has been broadly assessed, and the results are set out in Chapter 15. Subsequently, a set of Response Plans (also presented in the next chapter) has been devised to respond to these alternative situations.
- 14.2.3 The population growth and economic growth, while closely related, may not proceed in the same direction or at the same rate. The combinations of different population and economic growth patterns would give rise to a number of different scenarios as illustrated in the matrix at **Figure 14.1**.

Figure 14.1 “What If” Scenario-Generation Matrix



14.3 Selection of Scenarios for Examination

- 14.3.1 Two of the six postulated scenarios have been selected for more detailed examination on the basis of the extent of impact on the land use proposals. Besides, the shortlisted scenarios should represent the more plausible of scenarios aside from the RS.
- 14.3.2 The scenarios of “low population growth – moderate economic growth” and “high population growth – high economic growth” have been selected. The former is chosen because of the higher demand on cross-boundary infrastructure despite a lower requirement for development land. On the contrary, we would expect that the latter scenario will significantly raise the requirements for both housing and economic land. Further explanations are given below.

14.4 Scenario of Low Population Growth and Moderate Economic Growth (LPGS)

- 14.4.1 The LPGS describes a situation under which Hong Kong maintains the level of economic growth assumed under the RS. The lack of low-skill employment in Hong Kong acting as a push force, coupled with improved living conditions and lower cost of living across the boundary as a pull force, may result in the relocation of some of our residents and retirees to the Mainland, resulting in a slower population growth in Hong Kong.
- 14.4.2 Under this scenario, Hong Kong’s economic situation is assumed to be similar to the RS. Therefore, the GDP growth rates of the RS are adopted, resulting in the same level of employment opportunities. Improved living conditions and cross-boundary infrastructure could also attract some of the workers (and their families) to live in the Pearl River Delta, but commuting back to Hong Kong to work. This ends up in a much faster growth in the number of cross-boundary workers, who will help to meet Hong Kong’s employment needs but not be counted in the total resident population.

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What If...?

- 14.4.3 Due to the above changes in demographic structure, we assume a population of about 0.4 million lower than that assumed under the RS. The significant increase of cross-boundary workers will however lead to a much higher daytime population in the longer term. The following table summarises the major assumptions used in this scenario.

Table 14.1 Key Assumptions of the LPGS

	Population		Daytime Population		Working Population		Employment	
	RS	LPGS	RS	LPGS	RS	LPGS	RS	LPGS
Base Year	6.8	6.8	6.8	6.8	3.2	3.2	3.0	3.0
2010	7.2	7.1	7.2	7.1	3.6	3.5	3.5	3.5
2020	7.8	7.6	7.8	7.7	3.8	3.7	3.7	3.7
2030	8.4	8.0	8.4	8.3	3.9	3.7	4.0	4.0

Housing Land Requirement

- 14.4.4 The immediate effect of a smaller population size would be the demand for housing land. We estimate that there will be a net reduction in total housing land requirement of 170,000 units.

Table 14.2 Housing Requirements Under the LPGS

	Cumulative Housing Requirement		
	2010	2020	2030
RS	248,000	553,000	924,000
LPGS	248,000	477,000	754,000
Difference	-	-76,000	-170,000

Economic Land Requirement

- 14.4.5 Although the economic performance of this scenario is the same as that adopted in the RS, we expect that there will be a slightly lower economic land requirement as a result of the change in composition of the working population. The employment opportunities will be partly taken up by cross-boundary workers. Such a significant number of 300,000 cross-boundary workers may lead to a lower

What If...? **14**

domestic consumption compared with the RS, which could in turn reduce the floorspace required for trading companies commonly located within our General Business areas. The following table illustrates the differences.

Table 14.3 Economic Land Requirements Under the LPGS

	2010		2020		2030		Demand		Requirement ¹	
	RS	LPGS	RS	LPGS	RS	LPGS	RS	LPGS	RS	LPGS
CBD Grade A Offices	5.1	5.1	5.8	5.8	6.7	6.7	2.6	2.6	2.7	2.7
General Business	35.5	34.5	36.2	35.2	38.2	36.2	5.2	3.2	5.4	3.5
Special Industries	5.5	5.5	6.0	6.0	6.7	6.7	2.7	2.7	2.9	2.9
Total							10.5	8.5	11.0	9.1

(GFA in million m²)

Demand for Cross-Boundary Road Traffic

- 14.4.6 The demand for cross-boundary traffic is expected to increase as a result of the 300,000 cross-boundary workers, which will result in 600,000 daily commuting trips, vis-à-vis the assumption of less than 70,000 trips under the RS². Much of this traffic demand would likely be met by rail, while the rest would be shared by cross-boundary bus or coach, and to a lesser extent, private cars. Sensitivity tests have been undertaken to assess the impact of the additional flows.

14.5 Scenario of High Population Growth and High Economic Growth (HPGS)

- 14.5.1 Under this scenario, Hong Kong will manage to maintain high levels of economic growth. Specifically, we have assumed a 0.5% GDP growth rate higher than that assumed under the RS for

¹ The floorspace requirement takes into account the existing surplus stock and the need to accommodate a "natural vacancy" factor.

² Referring to the assumption of daily cross-boundary commuting trips made by Hong Kong Residents usually living in the Mainland under the RS.

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the medium and long terms. More jobs will be created in view of a higher economic growth, resulting in a higher job creation ratio for the medium and long terms as compared with the RS. A greater number of imported talent and skilled workers have been assumed to cope with employment growth while the number of cross-boundary workers will be similar to the RS.

- 14.5.2 On population assumption, the importation of more talent and professional workers will make up a larger population. On the whole, there will be an additional increase of about 0.4 million in population up to 2030 compared with the RS. The following table summarises the major assumptions adopted under this scenario.

Table 14.4 Key Assumptions of the HPGS

	Population		Daytime Population		Working Population		Employment	
	RS	HPGS	RS	HPGS	RS	HPGS	RS	HPGS
Base Year	6.8	6.8	6.8	6.8	3.2	3.2	3.0	3.0
2010	7.2	7.2	7.2	7.2	3.6	3.6	3.5	3.5
2020	7.8	8.0	7.8	8.0	3.8	3.9	3.7	3.9
2030	8.4	8.8	8.4	8.9	3.9	4.3	4.0	4.4

Housing Land Requirement

- 14.5.3 The RS assumes that there will be a total requirement of 924,000 housing units from now to 2030. An additional population of 0.4 million by 2030 under the HPGS would raise this total requirement by 205,000 units to 1,129,000 units.

Table 14.5 Housing Requirements Under the HPGS

	Cumulative Housing Requirement		
	2010	2020	2030
RS	248,000	553,000	924,000
HPGS	248,000	626,000	1,129,000
Difference	-	+73,000	+205,000

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- 14.5.4 Since the population assumptions under this scenario will only start to deviate from the trend of the RS from 2020 onwards, divergence in cumulative housing requirement will start to arise in the similar time-frame. This implies that we have to explore opportunities for providing housing land for the additional 205,000 units spread across 10 years, i.e. equivalent to around 20,000 units per annum.

Economic Land Requirement

- 14.5.5 Under the RS, the total requirement of economic land is estimated to be about 11.0 million m² in terms of GFA. As a result of the accelerated economic growth, the total economic land requirement will increase to 16.7 million m² in GFA by 2030, representing a net increase of 5.7 million m². A detailed breakdown of the floorspace is shown in the following table.

Table 14.6 Economic Land Requirements Under the LPGS

	2010		2020		2030		Demand		Requirement ³	
	RS	HPGS	RS	HPGS	RS	HPGS	RS	HPGS	RS	HPGS
CBD Grade A Offices	5.1	5.1	5.8	6.0	6.7	7.4	2.6	3.3	2.7	3.5
General Business	35.5	35.5	36.2	38.0	38.2	42.0	5.2	9.0	5.4	9.6
Special Industries	5.5	5.5	6.0	6.3	6.7	7.4	2.7	3.4	2.9	3.6
Total							10.5	15.7	11.0	16.7

(GFA in million m²)

Demand for Cross-Boundary Road Traffic

- 14.5.6 Given the minor increase of cross-boundary workers by 2030 under this scenario, their contribution to the daytime population in Hong Kong would be insignificant and would not generate significant demand for transportation, in particular on the need for cross-boundary bus/coach/rail.

³ The floorspace requirement takes into account the existing surplus stock and the need to accommodate a "natural vacancy" factor.

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- 14.5.7 However, a higher level of economic activity may induce more cross-boundary traffic made by private cars for business or leisure travel. We assume that there will be an additional of 13,800 daily vehicular trips made by private cars by 2030. There will also be a higher volume of cross-boundary traffic made by goods vehicles and container trucks.
- 14.5.8 A comparison of the daily cross-boundary (two-way) vehicle traffic on a normal weekday is tabulated in the following tables.

Table 14.7 Daily Cross-Boundary Vehicle Traffic Under the HPGS

	Car		Bus/Coach		Total	
	RS	HPGS	RS	HPGS	RS	HPGS
Base Year	8,200	8,200	3,600	3,600	11,800	11,800
2010	34,900	34,900	4,800	4,800	39,700	39,700
2020	63,000	70,400	9,400	9,600	72,400	80,000
2030	96,400	110,200	12,900	13,200	109,300	123,400

	Goods Vehicle		Container Truck		Total	
	RS	HPGS	RS	HPGS	RS	HPGS
Base Year	14,800	14,800	12,800	12,800	27,600	27,600
2010	24,400	24,400	23,100	23,100	47,500	47,500
2020	35,000	37,800	35,400	38,300	70,400	76,100
2030	39,400	42,400	39,900	43,000	79,300	85,400

Section IV Planning Strategy and Next Steps

Chapter 15: Response Mechanism



Response Mechanism 15

“By failing to prepare, you are preparing to fail.”

— Benjamin Franklin

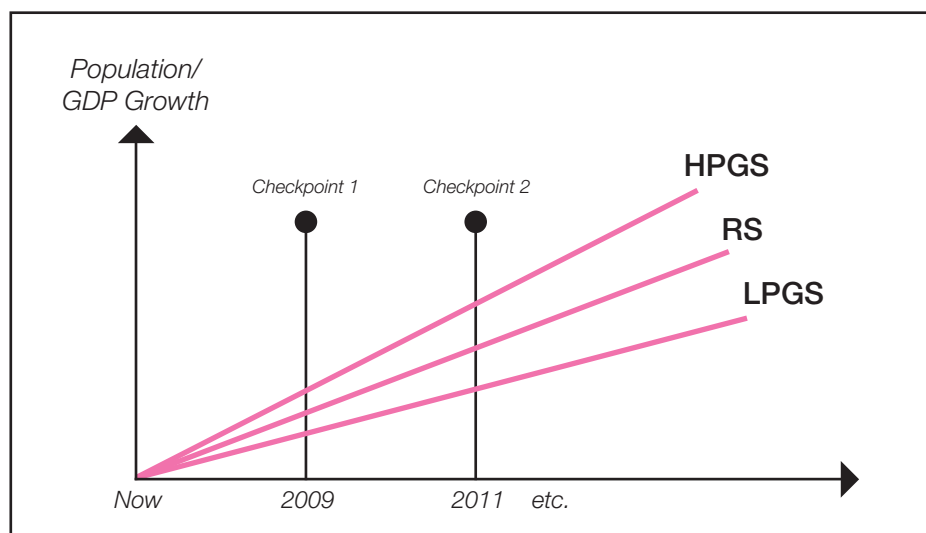
15.1 Introduction

- 15.1.1 The response mechanism provides guidance on how to adjust the development framework and amend the implementation programme in response to unexpected circumstances as we move ahead, i.e. the “What If” Scenarios described in Chapter 14. It defines key parameters and milestones that would trigger the need to consider the alternative plans, i.e. the Response Plans.

15.2 Method

- 15.2.1 The first step involved determining indicators (or warning signs) that define a shift from the Reference Scenario (RS) to any of the “What Ifs”. Appropriate intervals for monitoring the situation were determined, i.e. setting the checkpoints – we believe that this should be done perhaps every two to three years. Lastly, we have formulated a Response Plan outlining the actions to be taken corresponding to each of the alternative scenarios.

Figure 15.1 Response Mechanism



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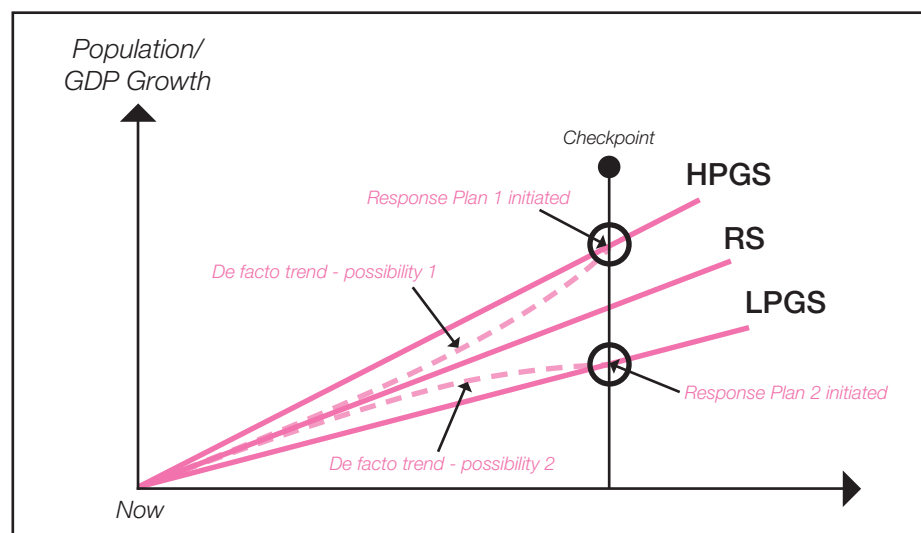
Response Mechanism

- 15.2.2 To monitor deviations from the development trend of the RS, we would need to determine relevant indicators to give early signals. While the alternative scenarios have been constructed with only simple variables on population and GDP growth, due to the complexity of circumstances to be expected, a number of other indicators could also shed light directly or indirectly on our population and economic trends. The key indicators are given in the following table.

Variable	Key Indicators
Population/ Housing	Usual residents
	Housing land supply and take-up
Economy	Average annual GDP growth
	Employment and working population
	Supply/take-up of offices
	Traffic flows (domestic and cross-boundary)
	Cross-boundary person-trips

- 15.2.3 At the time when the monitoring exercise is carried out, the data collected for the indicators would be compared with the set of figures adopted in the RS. Consideration for initiating the relevant Response Plan will be given if the de facto trend corresponds with (or exceeds) the curve of the Low Population Growth and Moderate Economic Growth (LPGS) or the High Population Growth and High Economic Growth (HPGS) respectively as shown on **Figure 15.2**.

Figure 15.2 “Trigger Point” for the Response Plan



Response Mechanism 15

15.3 Responding to the LPGS

- 15.3.1 Under the LPGS, there will be a lower demand for housing land compared to the RS. Specifically, a total of 170,000 fewer housing units will be needed by 2030. On economic land, there will be a net reduction of 1.9 million m² GFA in office accommodation for general business uses by 2030.

LPGS Response Plan

- 15.3.2 As set out in Chapter 11, it is our intention under the Preferred Development Option to optimise development opportunities in the existing built-up areas first before proceeding with new developments areas (NDA) in the New Territories. Therefore, in case there is a lower population growth, we would follow a “last-in-first-out” principle by dropping or delaying the NDAs.
- 15.3.3 The implementation of NDA, from planning and design stage to initial population intake towards the end of next decade, will take over ten years. Admittedly, the closer we approach the latter half of the 2010s, the lesser will be the flexibility in trimming down the development scale of the NDA to suit the latest population profile. Nevertheless, the chance of deviating from the RS to follow the LPGS path after 2015 is rather unlikely as it may involve quite a sharp decrease in population. In other words, if we are to follow a path close to the RS curve up to the mid 2010s, it is unlikely that we would need to switch to a Response Plan at all. In any case, depending on the scale of changes in circumstances, it may have warranted another round of review of the planning strategy by that time.
- 15.3.4 The response actions under the LPGS, making reference to the implementation programme of NDA and monitoring time-frame, are indicated in **Table 15.1**.

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Response Mechanism

Table 15.1 Response Plan for the LPGS

Time of Detecting Inclination Towards LPGS	Progress of NDA Development Under the RS	Response Action Under LPGS
2009	Planning and design stage.	Defer all NDA developments.
2011	Three-in-One Scheme undergoing land resumption. Hung Shui Kiu NDA under detailed design.	Withhold the Hung Shui Kiu NDA and extend the development programme of the Three-in-One Scheme to a longer time span.
2013	Site formation and engineering works of Three-in-One Scheme about to start.	Delay site formation and engineering works of later phases of the Kwu Tung North NDA and Fanling North NDA.
2015	Site formation and engineering works of Hung Shui Kiu NDA about to start.	Delay site formation and engineering works of the Hung Shui Kiu NDA.
2017	Site formation and engineering works of Hung Shui Kiu NDA already in progress.	Defer site allocation/disposal.

(Details to be reviewed upon completion of the NDA review studies, which will recommend more specific implementation programmes.)

- 15.3.5 Regarding the reduced requirement for general business accommodation, as such floorspace is mainly provided through the utilisation of unrealised development potential arising from the redevelopment of existing industrial areas (as illustrated in Chapter 11), the decrease in requirement under this scenario would therefore primarily be adjusted through the market mechanism.

Response Mechanism 15

Assessments

- 15.3.6 It is expected that, under the LPGS, the environmental, traffic, land-use and social implications would be less significant compared with the RS. However, we have to be mindful of the financial implications of the LPGS arising from the over provision of housing and economic land. The cost for land resumption and clearance, site formation and engineering infrastructure, and construction of community facilities in the Hung Shui Kiu NDA and the Three-in-One Scheme would likely to be in terms of tens of billions. A prompt switch to the Response Plan once the trends towards the LGPS are identified could help to avoid premature or over-spending.
- 15.3.7 Another feature of the LPGS is the increase in cross-boundary workers to 300,000 by 2030. The findings of our broad-brush assessments indicate that the existing and planned cross-boundary infrastructure will be sufficient to handle the additional traffic generated from the increase in cross-boundary trips, as it is expected that the majority of the commuters will opt for rail as their mode of transportation. Hence, the impact on road-based traffic will be small, and the environmental nuisances thus generated are not expected to be significant.

15.4 Responding to the HPGS

- 15.4.1 Under the HPGS, the population assumption for 2030 is 0.4 million higher than that of the RS. The corresponding net increase in housing units will be 205,000 in 2030 respectively. The total economic land requirement will increase to 16.7 million m² GFA by 2030, representing a net increase of 5.7 million m². The respective increase in requirement for CBD Grade A offices, general office uses and special industries would be 0.8 million m² GFA, 4.2 million m² GFA and 0.7 million m² GFA respectively by 2030.

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Response Mechanism

HPGS Response Plan

- 15.4.2 In fulfilling the requirements of RS, the development opportunities in the existing built-up areas should have been optimised and Three-in-One Scheme as well as the Hung Shui Kiu NDA would need to be fully developed. As a result, additional NDAs in the New Territories would have to be explored, lest resorting to other undesirable options such as further intensification of development.
- 15.4.3 To accommodate the additional population arising from the HPGS, additional NDAs at Kam Tin/Au Tau and San Tin/Ngau Tam Mei, with no prejudice on their priority, would need to be considered for implementation. The priority of developing these remaining NDAs could be determined at the trigger point (i.e. when it is decided that the HPGS Response Plan should be instigated), taking into account such factors as development capacity, accessibility by rail and proximity to existing built-up areas and other conditions prevalent at the time.
- 15.4.4 As a rough estimate, the additional NDAs would be able to accommodate the extra 0.4 million population under the HPGS. We will need to consider initiating a planning and engineering study on these NDAs when the deviation towards the HPGS is detected at any of the monitoring checkpoints.
- 15.4.5 However, we also need to be aware that circumstances may change over time – the land originally proposed for the additional NDAs may no longer be available because that land has already be developed for alternative uses, e.g. low-density housing, by the private sector. In this case, we may have to conduct another search exercise to identify further NDA opportunities.
- 15.4.6 Regarding the provision of CBD Grade A offices under the HPGS, we will need to explore the further development opportunities within the CBD and investigate the feasibility of expanding the office nodes outside the CBD.

Response Mechanism 15

- 15.4.7 As for accommodation for general business uses, opportunity of redeveloping existing industrial buildings within “Other Specified Uses” annotated “Business” zone for business purpose should have been exhausted under the RS. To meet the additional requirement of 4.2 million m² in GFA, we will need to consider rezoning the remaining industrial areas within the Metro Area, or, if the demand is indeed so great, proceeding with the planning of new office nodes in the New Territories.
- 15.4.8 In terms of land provision for special industries, we would investigate the possibility of expanding the Ping Che/ Ta Kwu Ling NDA with a view to accommodating the additional requirement.

Assessments

- 15.4.9 Broad-brush assessments were also conducted to examine the environmental and traffic performances of the HPGS vis-à-vis the RS. In terms of environmental quality, since the difference between the population assumption between the RS and the HPGS is not significant, the impacts on water quality, noise and waste presented above for the RS will be generally applicable to the HPGS.
- 15.4.10 As for traffic impact, under the HPGS, the average travelling speed at the morning peak hour will be reduced compared to the RS and the average travelling time will be much longer.
- 15.4.11 Cross-boundary vehicle and passenger trips under the HPGS will also experience a considerable increase. Although the travel demand pattern would be similar to the RS, the extra passenger trips are expected to use predominantly the coach and bus services via Lok Ma Chau and the HZMB. Congestion at Lok Ma Chau and Hong Kong-Shenzhen Western Corridor is likely and it is therefore essential to assess whether the existing and committed cross-boundary facilities could handle the projected flows under a high growth situation.

15

Response Mechanism

15.5 Overall Assessment

- 15.5.1 The establishment of “What If” Scenarios and results of the sensitivity tests clearly illustrate that an effective response mechanism may allow us to slide smoothly into alternative strategies corresponding to growth trends which we do not anticipate at this stage.
- 15.5.2 However, we should also be aware of the complexity of circumstances and the fact that the future will unlikely unfold precisely as we anticipate at this moment. Most importantly, we must recognise that circumstances are usually so complex such that gauging through simple numerical indicators may not give the full picture. The importance of regular reviews and monitoring cannot be further emphasised.

Section IV Planning Strategy and Next Steps

Chapter 16: Outstanding Issues and Conclusion



Outstanding Issues and Conclusion 16

“Nil actum reputa si quid superest agendum.”
(Don't consider that anything has been done if anything is left to be done.)

— *M. Annaeus Lucanus*

16.1 Plan Needs to be Followed Through

- 16.1.1 The completion of the HK2030 Study only marks the first milestone of an extended planning process. The recommended planning strategy provides broad directions and concepts, which need to be followed up by further topical studies and eventually translated into relevant district plans, planning guidelines and development programmes as appropriate. Where necessary, further studies and assessments will need to be carried out to look into the environmental acceptance, environmental impact and mitigation measures for individual development proposals.
- 16.1.2 In Chapter 13, we have set out a list of measures that concertedly work towards the three broad planning directions and ultimately the achievement of the vision for Hong Kong. Some of these measures are already being looked into by relevant arms of the Government and can be implemented more readily. However, a number of them still necessitate the overcoming of many hurdles through more detailed studies and deliberations. Taking forward the recommendations of the Study will therefore require close coordination and tight monitoring.

16 Outstanding Issues and Conclusion

Ongoing Major Studies

Closed Area

- 16.1.3 We have instigated a planning study for the area (about 2,000 hectares) to be released after the re-delineation of the Closed Area. The study will initially focus on defining the areas/sites of high ecological, landscape and cultural heritage value for conservation and protection. Development opportunities would then be assessed with reference to the strategic location of this area, territorial needs, cross-boundary activities and local aspirations/needs.

Liantang/Heung Yuen Wai Control Point and the Eastern Corridor

- 16.1.4 To strengthen connections with eastern Guangdong and improve the currently sub-standard control points on the eastern side of the boundary, we are conducting a joint study with the Shenzhen authorities to examine the need, function and benefits of developing a new control point at Liantang/Heung Yuen Wai. This is complemented by a parallel study on the associated connecting roads within Hong Kong's territory. The latter study will assess the implications of providing a new control point at Liantang/Heung Yuen Wai and evaluate alignment options and examine the key issues including broad environmental assessment of the connecting roads.

Greater Pearl River Delta Study

- 16.1.5 The Greater PRD Study – a joint effort with the Guangdong authorities – commenced in early 2006 and is targeted for completion in 2008. The study will examine the latest land use pattern, railway and highway proposals, as well as ports and airports facilities within the Greater PRD Region with the intention to derive a development strategy that is beneficial to the entire region. Relevant issues that are important to the governments within this region, including cross-boundary infrastructure, environmental management, co-operation and co-ordination mechanism would be addressed. The study also serves to provide a communication platform for both sides on future planning and development issues.

Outstanding Issues and Conclusion 16

Studies on Port and Airport Development

- 16.1.6 New port facilities and expansion plans of the Hong Kong International Airport (HKIA) are not only essential to sustain our economic growth but also critical to the development pattern and overall environmental performance in Hong Kong.
- 16.1.7 As set out in Chapter 11, two locations for Container Terminal No. 10 (CT10) at Northwest Lantau and Southwest Tsing Yi have been put forward under the HKP2020 Study. Currently, a detailed assessment under the Ecological, Fisheries and Water Quality Impact Assessment Study for the Proposed Port Development at North West Lantau is being conducted, scheduled for completion in 2007.
- 16.1.8 Separately, the Hong Kong Airport Authority (AA) released a new HKIA 2025 in December 2006 which recommends, among others, the carrying out of engineering and environmental feasibility studies on the construction of a third runway at the HKIA.
- 16.1.9 We believe that the final decision on both CT10 and a third airport runway will have immense implications for the overall development pattern for Hong Kong. While we have taken into consideration both locational options for CT10 in the HK2030 Study, we do not have adequate detail on the third runway at this stage to carry out any assessment. We will keep in close view of the outcome of AA's studies and consider the need for updating our planning strategy when the results are available.

Discontinuing with the Updating of Sub-Regional Plans

- 16.1.10 As recommended above, some of the proposed measures of the planning strategy should be passed on to the district planning level for more detailed consideration. However, there also exists another tier of planning linking the territorial and the district levels, i.e. the sub-regional planning tier, which provides planning directions for the five sub-regions of Hong Kong, including the Metro Area and four quarters of the New Territories.

16 Outstanding Issues and Conclusion

- 16.1.11 Sub-regional planning statements were first prepared at a time when Hong Kong was experiencing rapid population and economic growth. One of the intents of such plans is to distribute developments in a more balanced manner, taking into account the characteristics of each sub-region. As sufficient development opportunities to meet the land requirements up to 2030 have been identified under the HK2030 Study on the basis of the previous sub-regional planning studies, there is no need to repeat the task at the sub-regional planning level.
- 16.1.12 The diminishing difference in character of sub-regions has also rendered detailed boundary delineation unnecessary. Besides, the broad directions proposed under the HK2030 Study are equally applicable in all regions. For the above reasons, we consider that updating of sub-regional planning statements will not be necessary.

16.2 Areas to Focus

- 16.2.1 The planning strategy set out in Chapter 13 touches upon a vast number of topics, and recommends further action on many of them. As it will be impossible to look into each of these areas altogether, we believe that some of them should be given priority focus.

New Development Areas

- 16.2.2 We recommend the commissioning of a planning and engineering study on the proposed Three-in-One NDA Scheme to formulate development proposals to cater for the latest planning circumstances, community aspirations and development needs and to carry out relevant environmental and engineering investigations. A similar study for the Hung Shui Kiu NDA is also recommended to be carried out at a later stage.

Measures to Revive the Local Economy

- 16.2.3 Our analysis shows that decay of the physical environment and the vitality of the local economy could be closely connected. Hence, it is construed that improvements to the physical environment could help to revive the local economy, bring in businesses and jobs, and nurture growth of creative industries. This is equally applicable in

Outstanding Issues and Conclusion 16

both the urban and rural contexts. Besides, we have also advocated the importance of a “cellular” or “bottom-up” approach in fostering a sense of place and sense of identity among the community. Our priority focus should therefore be on local-area schemes.

- 16.2.4 In the urban context, we have suggested under the planning strategy that further area improvement schemes should be identified, not only for the purpose of improving the pedestrian environment, but also for the sake of urban revitalisation. As such, potential target areas will not be confined to busy districts like Causeway Bay, Mong Kok and Tsim Sha Tsui, but locations which are less vibrant. We recommend that an exercise to identify new area improvement schemes based on the new angle should be undertaken, to be followed up by appropriate area-based studies.
- 16.2.5 Many rural areas and townships also call for our immediate attention. We have recommended a number of beneficial uses of the rural areas, such as uses supporting ecotourism, recreational uses and organic farming. These concepts need to be further articulated under topical studies, especially regarding the benefits, feasibility and mechanism for local application.

16.3 A Planning Framework as the Connector

- 16.3.1 The HK2030 Study, transcended from past territorial planning studies, adopted an approach different from the previous studies. It is an important part of Government’s collaborative effort to achieve our vision as Asia’s world city. Towards this vision, the HK2030 Study aims to provide a spatial planning framework to guide development and the provision of major infrastructure in the next 20 to 30 years. Realisation of our vision, however, relies also on strategies formulated under other policy areas. They must be consistent with each other and the HK2030 Study provides a spatial framework integrating all.

16 Outstanding Issues and Conclusion

16.4 A New Approach in Planning

- 16.4.1 Strategic planning like the HK2030 Study is a process of public engagement, highly inclusive of all concerned. It provides the context (especially a long and wide perspective) to facilitate informed, and therefore meaningful, public debates on many of the important issues that would affect the future development of Hong Kong. The output is not merely the plan, but a renewed way of thinking and attitude towards development – a paradigm shift in planning.
- 16.4.2 Our strategy highlights the preference for optimising available development opportunities and being prudent on opening up greenfield land for development. Apart from major developments at Kai Tak and West Kowloon, the theme is to leverage on the existing urban infrastructure, concentrate on the re-use and re-cycling of the old urban fabric and to ***do more with less***.
- 16.4.3 We hope to re-shape the conventional wisdom of having a “grandiose plan” to an emphasis on “sustainable growth”. This is in line with the world trend for sustainable development, which is also a principle we heartily embrace. Above all, Hong Kong has a role in helping our country in her quest to match up with the world development. Therefore, we must demonstrate that we have the determination, and the plan, to become a city for true sustainable development.

16.5 Continuous Monitoring

- 16.5.1 We do recognise that circumstances will change over time, and so will community needs and aspirations. The HK2030 Study, as noted earlier, is not meant to set out a detailed blueprint for Hong Kong’s future development, but to provide a robust strategy that can cater for changes. Other than monitoring macro trends, we must also maintain regular dialogues with the public on major planning issues to ensure that this will be a living strategy, constantly being enriched by the intellect and enthusiasm of our people.

Annexes

Annex I: Working Papers and
Technical Reports of the HK2030 Study

Annex I

Working Papers and Technical Reports of the HK2030 Study



Working Papers

1. Hong Kong's Third Economic Transformation and the Development of Innovation and Technology
2. Tourism Planning
3. Planning Frameworks of Guangzhou, Shenzhen, Zhuhai and Macao
4. Baseline Review of Port Facilities and Future Requirements
5. Population and Employment Assumptions for the Base Scenario
6. Requirements for Major Strategic Facilities
7. Mega Trends Impacting Hong Kong
8. Hong Kong Residents Living in the Mainland
9. Built Heritage Preservation
10. Ecological Footprint
11. Quality of Life
12. Aging Population and Planning for the Elderly
13. Urban Renewal and Rehabilitation
14. Studies on Home Office Activities in Hong Kong
15. Review of U.S. and Singapore Experience in Mixed-use Developments and Its Applicability to Hong Kong
16. Review of International Experience : Selected Leading Cities - Part II
17. Major Development Constraints and Opportunities
18. Development Interface Between Hong Kong and the Mainland
19. High-technology Development in the Pearl River Delta
20. Culture and Arts Development
21. Regional and Hong Kong's Transport Planning Framework
22. Note on the Planning Implications of Mainland's Tenth Five-Year Plan
23. Study of the Impacts of Information Technology on Planning
24. Different Approaches to the Formulation of Scenarios
25. Reference Scenario – Quantitative Parameters
26. Reference Scenario
27. Development Options under the Reference Scenario
28. "What If" Scenarios

Note: All papers and reports are available at the HK2030 Study Homepage (www.hk2030.gov.hk).

I Working Papers and Technical Reports of the HK2030 Study

29. Broadbrush Economic and Financial Assessment of Development Options
30. Broadbrush Environmental Comparison of Development Options
31. Population and Employment Assumptions for the Reference Scenario
32. Development Potential of the Frontier Closed Area
33. Regeneration of Industrial Areas in Metro Area – A Hypothetical Case Study at San Po Kong
34. Review of Residential Densities – Concept and Case Study
35. Initial Transport Assessment of Development Options
36. Initial Assessment of the Development of a University Town in Hong Kong
37. Additional Cross-boundary Link to the Eastern Part of Guangdong Province (Eastern Corridor)
38. Preliminary Sustainability Assessment of Development Options
39. Initial Assessment of Possible Port Development Sites
40. Final Report on the Case Studies of the Possible Conversion of Selected Industrial Buildings for Loft Apartments in Ma Tau Kok and Yau Tong
41. Modified Population and Employment Assumptions under Stage 4 Reference Scenario
42. Population and Employment Assumptions Under the “What If” Scenarios
43. Revised Forecast of Economic Floorspace Demand Under Stage 4 Reference Scenario
44. Regeneration of Old Industrial Areas in the Main Urban Areas – A Summary Review
45. Stage 4 Assessment of Housing Land Requirement and Supply
46. Planning Strategy for CBD Grade A Offices
47. Transport Assessment for the Stage 4 Development Scenarios
48. Background Research on Ec lodge Development and Broad Examination of Its Applicability in Hong Kong

Working Papers and Technical Reports of the HK2030 Study



Information Notes

1. Planning Objectives
2. Review of international Experience : Selected Leading Cities – Part I
3. Review of Environmental Baseline Conditions
4. Baseline Assessment of Land Reservation for Employment Related Uses
5. Guangdong and Hong Kong Cross-boundary Co-operation on Environmental Issues
6. Possible Use of Reservoirs for Recreation
7. Legislative Council Panel on Transport :
The Hong Kong-Zhuhai-Macao Bridge
8. Advisory Council on the Environment Paper on the
Hong Kong-Zhuhai- Macao Bridge
9. Port Development Strategy Review 2001 (Executive Summary, Sept 2001)
10. Sustainable Development Council Paper on HK2030 Study
11. Implications of the Population Policy for the HK2030 Study
12. Implications of the 2003 Policy Address for the HK2030 Study
13. Models and Results of the Employment Use Floorspace Demand Forecast
for Reference Scenario
14. The Assumptions on Visitor Arrivals
15. Technical Note on Tourism Transport Planning
16. Impact of Technology Advancement on Transport System
17. Estimation of the Number of Hong Kong Permanent Residents Usually
Living in the Mainland
18. Thematic Household Survey 2003 – Hong Kong Residents' Experience of
and Aspirations for Taking up Residence in the Mainland of China
(Executive Summary)
19. Survey of Hong Kong People Living and Working in the Pearl River Delta
Region (Chinese version only, Dec 2004)
20. Thematic Household Survey 2005 – Hong Kong Residents' Experience of
and Aspirations for Taking up Residence in the Mainland of China
(Executive Summary)
21. The Challenges and Implications brought about by the Eleventh Five-Year
Plan on the Future Development of Hong Kong (Chinese version only)
22. Addressing High Densities – A Net Site Approach for Large Sites?

I Working Papers and Technical Reports of the HK2030 Study

Consultants' Technical Papers

Study on Economic Planning Services

1. Typology for Employment Related Land Uses
2. Establishment of Forecasting Models for Employment Land Uses
3. Employment Use Floorspace Demand Forecast For Reference Scenario
4. Final Report

Economic and Financial Assessments

5. Assessment Methodology Formulation
6. Final Report

Strategic Environmental Assessment

7. Inception Report
8. Initial Assessment Report
9. Key Issues Report
10. Options Evaluation Report
11. Revised Concept Plan for Lantau (LCP) – Broad Brush Environmental Appraisal of the LCP
12. Executive Summary

Broad Land Use Pattern of the Pearl River Delta Region

13. Executive Summary

Annexes

Annex II: Panel of Specialist Advisors

Annex II

Panel of Specialist Advisors *II*

Dr. Man Hung CHAN
Dr. Hon Kwan CHENG, GBS, JP
Dr. Wing Tat HUNG, MH
Prof. Si Ming LI
Mr. Kwok Chuen KWOK, BBS, JP (up to October 2004)
Dr. Vincent H.S. LO, GBS, JP
Dr. Cho Nam NG, BBS
Mr. Sin Por SHIU, SBS (up to July 2007)
Prof. Shu Ki TSANG (up to June 2002)
Prof. Anthony YEY
Prof. Yue Man YEUNG, SBS, JP
Mr. Plato K.T. YIP

Annexes

Annex III: List of “No-Go” Areas

Annex III

List of “No-Go” Areas



(A) Ecological and Other Natural Resources	
<i>(i) Ramsar Site</i>	<ul style="list-style-type: none"> • Include 1,500 hectares of mudflats, fish ponds, marshes and dwarf mangroves in the Mai Po Marshes and Inner Deep Bay area • Listed as “Wetland of International Importance” under the Ramsar Convention • Allow no development unless it is required to support the conservation of the wetland ecosystem in the area
<i>(ii) Wetland Conservation Area (WCA) and Wetland Buffer Area (WBA)</i>	<ul style="list-style-type: none"> • Associated with the Mai Po Marshes and Inner Deep Bay • Require planning permission for development within the WCA and WBA areas to avoid irreversible damage to the habitats
<i>(iii) Restricted Areas</i>	<ul style="list-style-type: none"> • Include the important wildlife habitats at Mai Po Marshes and Inner Deep Bay, Yim Tso Ha Egrettry, and the sandy beach at Sham Wan, Lamma Island • Designated under the Wild Animals Protection Ordinance • Access to these areas is restricted
<i>(iv) Sites of Special Scientific Interest (SSSIs)</i>	<ul style="list-style-type: none"> • Include land-based or marine sites for the protection of biological, geographical, geological or physiographic interests • Allow no development except some amendable uses such as agricultural use, amenity area and field study centre etc. which require planning permission
<i>(v) Sites Zoned “Coastal Protection Area” and “Conservation Area” on Outline Zoning Plans</i>	<ul style="list-style-type: none"> • The “Coastal Protection Area” zone is intended to conserve, protect and retain the natural coastlines and the sensitive coastal natural environment, including attractive geological features, physical landform or area of high landscape, scenic or ecological value, with a minimum of built development. May also cover areas which serve as natural protection areas sheltering nearby developments against the effects of coastal erosion

Note: A “no-go” area is defined as an area which will not be considered as a source of supply in meeting the land requirement of various strategic uses under the HK2030 Study.

III

List of “No-Go” Areas

<ul style="list-style-type: none"> The “Conservation Area” zone is intended to protect and retain the existing natural landscape, ecological or topographical features of the area for conservation, educational and research purposes and to separate sensitive natural environment such as Site of Special Scientific Interest or Country Park from the adverse effects of development General presumption against development in these zones – in general, only developments needed to support the conservation of the existing natural landscape or scenic quality of the area or are essential infrastructure projects with overriding public interest may be permitted
<i>(vi) Country Parks and Special Areas</i>
<ul style="list-style-type: none"> Cover a total area of around 41,600 hectares comprising 23 Country Parks and 17 Special Areas Amount to 38% of the total area of Hong Kong Designated under the Country Parks Ordinance for the purposes of nature conservation and protection of important biological or archaeological features Allow no development without the consent of the Country and Marine Parks Authority
<i>(vii) Marine Parks and Marine Reserves</i>
<ul style="list-style-type: none"> Cover a total area of around 2,430 hectares comprising four Marine Parks and one Marine Reserve Designated under the Marine Parks Ordinance for the purposes of nature conservation and marine recreation Control the activities and development in the designated areas Allow no development without the consent of the Country and Marine Parks Authority
<i>(viii) Victoria Harbour</i>
<ul style="list-style-type: none"> Concern on the loss of water area as a valuable natural assets and impacts on the hydraulic and water quality Preserved as a special public asset and a natural heritage under the Protection of Harbour Ordinance and the Vision Statement promulgated by the Town Planning Board

List of “No-Go” Areas



<ul style="list-style-type: none"> According to the judgement handed down by the Court of Final Appeal on 9 January 2004 on the Town Planning Board's appeal against the High Court's ruling in respect of the Wan Chai North Outline Zoning Plan, the presumption against reclamation can only be rebutted by establishing an overriding public need for reclamation
<i>(ix) Other Unprotected or Unidentified Resources</i>
<ul style="list-style-type: none"> The Environmental Impact Assessment Ordinance provides the protection to areas with ecological value yet to be identified if they are affected by development projects or land use plans
(B) Heritage
<i>(i) Declared Monuments</i>
<ul style="list-style-type: none"> Disallow demolition, defacement and disturbance to the declared monuments designated under the Antiquities and Monuments Ordinance without the permission from the Antiquities Authority Allow adaptive use which will not cause detriment to their conditions and protected values
<i>(ii) Other Archaeological Sites</i>
<ul style="list-style-type: none"> Include ancient architecture, kilns, hearths, rock carvings, farm lands, refuse mounds and footprints of ancient human beings Some receive statutory protection under the Antiquities and Monuments Ordinance Protect remaining archaeological sites by means of administrative action through prior consultation with the Antiquities and Monuments Office (AMO)
<i>(iii) Other Historical and Cultural Sites</i>
<ul style="list-style-type: none"> Assign grading of I, II or III to the sites according to their relative historical interests Protect the sites by means of administrative actions through prior consultation with the AMO
<i>(iv) Recognised Indigenous Villages, Fung Shui Areas and Traditional Burial Grounds</i>
<ul style="list-style-type: none"> Preserved against large-scale or high-density development in respect of the customary rights and interests of the indigenous inhabitants

III

List of “No-Go” Areas

(C) Water Supplies
<ul style="list-style-type: none"> • Protect Gathering Grounds (including direct and indirect) and reservoirs to ensure availability of local source of fresh water • Only accept environmentally sustainable developments within the Gathering Grounds that will not cause pollution to the water resources
(D) Safety
<i>(i) Geotechnical</i>
<ul style="list-style-type: none"> • Include geotechnical constraints such as geological faults, terrain/slope stability and seabed conditions • Need to control landslide risk to the community
<i>(ii) Potentially Hazardous Installations (PHI)¹</i>
<ul style="list-style-type: none"> • Include installation which stores hazardous materials in quantities exceeding a specified threshold • Siting of the installations and land uses in the vicinity are controlled
(E) Military Sites
<ul style="list-style-type: none"> • All sites listed in Schedule 1 of the Military Installations Closed Area Order (Cap. 245B)

¹ For each PHI, a Consultation Zone is delineated and development controls are implemented as stipulated in Chapter 12 of the Hong Kong Planning Standards and Guidelines.

Annexes

Annex IV: Sustainability Report

Annex IV

Sustainability Report *N*

Objective

1. The objective of this report is to assess the sustainability implications of the Preferred Development Option¹ as recommended under the Study on Hong Kong 2030: Planning Vision and Strategy (HK2030 Study) using the Computer Aided Sustainability Evaluation Tool (CASET).

Background

2. The HK2030 Study, transcended from past territorial planning studies, adopts an approach different from the previous studies. It is an important part to the Government's collaborative effort to achieve our vision as "**Asia's world city**". Towards this vision, the Study aims to provide a spatial planning framework to guide future land use and provision of major infrastructure in the next 20 to 30 years.
3. Under the overarching goal for **sustainable development**, we have set out **three broad directions** in preparing our planning strategy: (a) providing a quality living environment; (b) enhancing economic competitiveness; and (c) strengthening links with the Mainland. These directions are both crosscutting and inter-dependent.
4. The HK2030 Study has been carried out in four stages. We consider that, being a highly compact city, Hong Kong's future spatial development pattern should adopt the planning concept of clustering the bulk of development around mass transit railway stations to facilitate fast and mass movement of people in an environmentally-friendly mode of transport. Better utilisation of development opportunities in the existing built-up areas where infrastructure capacities permit would be recommended. While massive construction programmes like the new towns of the 1970s to 1990s will not be embarked upon, new development areas (NDAs) of a moderate scale in northern New Territories are proposed to provide land for a mixture of uses including housing, employment, higher education and high-value-added / clean industrial processes. These will be comprehensively planned to provide an alternative choice of living which emphasises both quality living space and resident / user convenience.

¹ Preferred Development Option, under the HK2030 Study, concerns about the future spatial development pattern, outlining where, what type and how much development would take place at different planning horizons. A summary of the major assumptions, planning parameters and development proposals of the Preferred Development Option is at **Appendix 1**.

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Approach

5. A preliminary sustainability assessment of different initial development options under the Reference Scenario² was undertaken during Stage 3 of the Study in November 2003 with a view to comparing, in broad-brush terms, the sustainability of these initial development options and scoping out major issues based on existing information available for further assessment in the ensuing stage of Study.
6. For the purpose of this sustainability assessment, the Preferred Development Option for the HK2030 Study is compared with the “without scenario” situation in 2030 so as to ascertain the acceptability of sustainability implications of the Preferred Development Option to be recommended and identify key issues that need to be further examined or addressed during the implementation stage.
7. Under the “without scenario” situation, the population and economic growth in Hong Kong is assumed to increase in a similar magnitude with that of the HK2030 Study, except that the latter has assumed a higher intake of talent / skilled workers and investors in the long-term to be in line with the vision for growth towards a knowledge-based economy. For this reason, we have assumed certain degree of growth and development even under the “without scenario” scenario and hence there will also be provision of key infrastructure, roads and rail projects as well as growth in various economic sectors and further expansion in the urban districts and in the New Territories to cope with the development pressure and needs of the society.
8. The differences between the Preferred Development Option and the “without scenario” situation include, inter alia, development of further container terminal facilities either at Northwest Lantau (NW Lantau) or Southwest Tsing Yi (SW Tsing Yi), NDAs at northern New Territories to accommodate additional population, provision of new employment node, higher education facilities as well as special industrial use, and the strategic

² Under the HK2030 Study, the Reference Scenario has been set out as what we envisage the future will be like based on the broad trends and vision target, and by taking into account existing policies and known commitments. The key assumptions and considerations used in deriving the Reference Scenario include population, employment, land requirements for various types of use such as housing, economic, transport and key infrastructures. Based on the results and recommendations of the SEA and other detailed assessments, the Preferred Development Option for the HK2030 Study will then be formulated in Stage 4.

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road links and railway network associated with these new development proposals. Committed development proposal and infrastructure projects like Kai Tak Planning Review, Harbour Area Treatment Scheme (HATS) Stages 2A and B (a strategic sewerage infrastructure improvement scheme to improve the overall water quality of the Victoria Harbour) have been assumed under all the scenarios. A summary of the major assumptions, planning parameters and development proposals of the Preferred Development Option is at **Appendix 1**.

9. In view of the strategic nature of the HK2030 Study, many of the development proposals are broadly conceptual and will be subject to further detailed assessments or studies before proceeding to the implementation stage. In this regard, the sustainability assessment conducted at this stage is generally a qualitative one, with input of information from other detailed assessments like strategic transport modelling, economic and financial assessments as well as strategic environmental assessment (SEA), where appropriate, for quantitative analysis.

Scenarios Considered

10. Two scenarios have been assessed throughout the sustainability assessment:

“Without Scenario”: Baseline situation of Hong Kong in 2030.

Scenario 1a: Situation in 2030 with possible new container terminal development at **NW Lantau** and the implementation of the major development proposals as set out in paras. 7 to 8 and **Appendix 1**.

Scenario 1b: Situation in 2030 with possible new container terminal development at **SW Tsing Yi** and the implementation of the major development proposals as set out in paras. 7 to 8 and **Appendix 1**.

11. Since Scenarios 1a and 1b only differ from each other on the possible location of the future container terminal, they will be compared with the “without scenario” situation altogether in the following paragraphs. Findings on the difference between these two scenarios will be highlighted in the text, where appropriate.

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Assumptions Made

12. The following assumptions were made under the HK2030 Study for the assessment:
- (a) Population will increase up to 7.2 million by 2010, 7.8 million by 2020 and 8.4 million by 2030.
 - (b) GDP growth rates per annum are assumed to be 4% (between 2005 and 2010), 3.5% (between 2011 and 2020) and 3% (between 2021 and 2030) respectively.
 - (c) Pending completion of the Ecological, Fisheries and Water Quality Impact Assessment Study for the proposed container terminal development at NW Lantau, both possible container terminal locations in NW Lantau and SW Tsing Yi have been taken into account in the Study.
 - (d) Cross-boundary interactions will be improved through the completion of new cross-boundary links including the Hong Kong-Shenzhen Western Corridor (SWC), Hong Kong-Zhuhai-Macao Bridge (HZMB), Guangzhou-Shenzhen- Hong Kong Express Rail Link (ERL). Another cross-boundary link at Liantang / Heung Yuen Wai has been proposed for further studies and its details has not been taken into account in the current Reference Scenario.
 - (e) A gradual change from coal to gas power generation, supplemented by environmentally sustainable sources of energy has been assumed.
 - (f) Expenditure on infrastructural facilities will be increased for supporting the new developments in the territory.
 - (g) Possible road and rail infrastructures are generally based on the Third Comprehensive Transport Study, the Second Railway Development Study and the latest NWNT Traffic and Infrastructure Review. Major transport infrastructures assumed to take place under the Study are listed in **Appendix 1**.

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Affected Indicators

13. After responding to the prescribed questions, 32 indicators have been confirmed as “affected indicators” and 10 indicators are found to be less affected under Scenario 1a (**Appendix 4**). The same 32 indicators are found affected under Scenario 1b being assessed.

Economy

14. Affected indicators: Cost-Benefit, Fixed Capital, Private Rent and Unemployment Rate
- (a) The assessment indicated small improvement to the cost-benefit and unemployment rate and moderate improvement to the fixed capital and private rent.
 - (b) The economic and financial assessments conducted in Stage 4 re-affirmed that, overall speaking, the financial cost of the proposed infrastructural development to the Government can, in broad terms, be covered by the revenue return subject to further detailed assessment. Development of the NDAs in the northern New Territories might bring about some economic cost for using the rural land resource. With respect to the future container terminal development, the analysis concluded that both possible locations, i.e. NW Lantau and SW Tsing Yi, have their benefits given their close proximity to the proposed HZMB and the existing container terminals in Kwai Tsing District respectively.
 - (c) Overall speaking, the Preferred Development Option would enhance Hong Kong’s economic competitiveness through the provision of adequate land for CBD Grade A offices, general business use, special industrial use, NDAs development, strategic transport network and a new container terminal. Also, the HKIA2025 recently announced by the Airport Authority Hong Kong, has suggested that studies on the feasibility of the construction of a third runway will be conducted.

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- (d) Although there is no quantitative data on the number of job places to be created during the construction and operation stages of the proposed developments, no doubt it will help reduce the unemployment rate of Hong Kong in the medium to long-term when they are commenced. Moreover, the Study has assumed a higher intake of talent and skilled workers after 2021 in order to fill the shortage in the working population against projected employment.
- (e) With the proposed developments, it is expected that private rent will stabilise in the long run as a result of adequate housing supply in the market with the NDAs development, further development of new towns and urban renewal projects to meet long-term housing needs.

Health and Hygiene

15. Affected indicators: Communicable Diseases and Respiratory Diseases

- (a) The assessment has revealed slight improvement to the indicators on communicable and respiratory diseases.
- (b) The adoption of a rail-based development approach for the future NDAs, together with other environmentally friendly modes of transport, is expected to induce reduction in vehicular emissions in the medium to long-term. According to the results of the SEA undertaken for the Study, the air quality modelling indicates general improvements in 2030 with the implementation of the committed control measures. However, the concentration of some air pollutants in some areas would worsen. These changes, coupled with positive design in transport infrastructure (such as placing strategic road underground or submerged and minimizing through traffic in residential neighbourhoods), advancement of technologies (like switching to Euro IV or V emission standards in future years) could help improve the air quality and hence reduce respiratory diseases.
- (c) Regarding the indicator of communicable diseases, the Preferred Development Option advocates the development of low to medium-density NDAs to provide more choices of living to people, which will also help thinning out the congested urban environment. The urban environment will be further improved through urban renewal

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projects as well as various pedestrian plans and area improvement plans in selective urban districts. The less congested and well-vegetated environment will help reduce the population susceptible to these health threats.

Natural Resources

16. Affected indicators: Construction Waste and Energy Consumption

- (a) There is moderate deterioration in the construction waste indicator particularly under Scenario 1a, where reclamation and construction of additional road links to connect the 'artificial island' with existing transport network (though container terminal development could also be viewed as a valuable depository for surplus construction and demolition materials) will generate a lot of waste during construction. The delivery of inert C&D materials for beneficial reuse in Mainland reclamation projects may need to continue if local public fill outlets remain insufficient.
- (b) MSW generation is likely to have stabilised or begun to decrease. However, as pointed out in the HK2030 SEA, the operation of the new container terminal at NW Lantau, if selected, will involve significant maintenance dredging, which will cause significant impacts to the limited capacity of the mud disposal areas. This may result in the need to further extend / replace the existing mud disposal areas. On the other hand, there is also a need to handle the contaminated mud at SW Tsing Yi, should the future container terminal be located here (Scenario 1b). The site for the proposed Lok Ma Chau Loop, which was previously being used as a dumping site for soft sediment (of which about one million m³ could be contaminated), also requires further studied.
- (c) Increase in population and economic activities may induce corresponding increase in the consumption of energy. However, the HK2030 SEA concluded that there are many 'clean energy' sources developed or being developed, e.g. the use of district cooling system, wind or solar energy. The successful introduction of these 'clean' or 'free of charge' energy in future will help reduce our energy consumption in the long-term. Moreover, given that a rail-based

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approach has been recommended in the development of NDAs under the Study, it is considered that there will be improvements to this indicator in the long run as NDA dwellers are expected to rely mainly on this mode of public transport in connecting the urban areas. The construction of major roads and port infrastructures will also help improve the energy efficiency aspect as both the people and goods could be moved in a shorter and faster manner which will be beneficial to save the energy consumed. The impacts of NDAs development (which may be less energy efficient due to longer travel distance) and urban renewal projects (resulting in more people moving out from the congested city centre) may have been offset in view of the long planning horizon of this strategic study.

Society and Social Infrastructure

17. Affected indicators: Education Attainment, Education Expenditure, Housing Inadequacy, Housing Waiting List, Living Space and Open Space Shortfall
 - (a) The assessment has revealed moderate improvements to the indicators on housing inadequacy and housing waiting list whilst small improvement to the living space indicator.
 - (b) The Preferred Development Option will set forth strategy to provide adequate land for housing development for the increased population. In the period between 2003 and 2030, a total requirement of about 924,000 units (averaging 34,000 per year) has been assumed. Through the development of the NDAs, further development of new towns and urban renewal projects, it will provide sufficient private and public housing units to meet future needs and hence help shorten the waiting list and address the housing inadequacy in Hong Kong.
 - (c) On the other hand, one of the broad planning directions of the Study is to provide a better quality living environment through better urban design, implementation of various pedestrian plans and area improvement plans in selective urban districts as well as the provision of 'quality' open space to people. Both scenarios have similar performance in this respect (small to moderate improvement to the indicators on living space and open space shortfall).

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- (d) The indicators on education attainment and expenditure are expected to improve slightly under both scenarios as the proposed NDAs would reserve land for development of additional higher education facilities.

Biodiversity

18. Affected indicators: Managed Marine Habitat, Managed Terrestrial Habitat, Marine Eco-value and Terrestrial Eco-value

- (a) According to the findings of the HK2030 SEA, both container terminal options would have negative impacts on the indicators on marine and terrestrial eco-values, in particular the NW Lantau container terminal option. Comparatively speaking, the “without scenario” situation performs slightly better than Scenarios 1a and 1b on these two indicators.
- (b) The SEA findings re-affirmed that the determining factor of the marine eco-value indicator is the location of the future container terminal. The possible NW Lantau container terminal is located in close proximity to an ecologically sensitive area. The new container terminal, if selected to be located in NW Lantau, will disturb the habitat of the internationally protected Chinese White Dolphin as well as the designated Marine Park at Sha Chau and Lung Kwu Chau and a potential Marine Park in Southwest Lantau (Fan Lau). Conversely, the environmental performance of Tsing Yi container terminal option will be similar to the “without scenario”, i.e. a slight improvement to the indicator when the proposed HATS Stage 2A (targeted for completion in 2013) and Stage 2B (subject to the results of review to be carried out in 2010 / 11) as well as other sewerage master plans are implemented in future.
- (c) The assessment indicated that there may be moderate negative ecological impacts to the indicator on terrestrial eco-value, particularly the proposed development at Lok Ma Chau Loop for special economic use, which is located in close proximity to the Mai Po Ramsar site and is surrounded by contiguous fishponds with high ecological value. The site is in vicinity of the Wetland Conservation Area and hence its potential ecological impact would need to be carefully assessed before proceeding to the implementation stage.

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- (d) On the other hand, it is found that both Scenarios 1a and 1b will perform slightly better than the “without scenario” to the indicators on managed marine habitat and managed terrestrial habitat. This is mainly because those areas which are of ecological importance, such as Ramsar site, Sites of Special Scientific Interest, Wetland Conservation Area and Buffer Area, Country and Marine Parks, etc. have been defined as one of the “no-go” areas under the HK2030 Study and will not be considered as a source of supply in meeting the land requirement of various uses at a strategic planning level.
- (e) In conclusion, the HK2030 SEA proposed further studies be conducted to understand in greater detail the impacts and significance of potential habitat loss or degradation. Whilst, all the proposed major developments will be subject to detailed EIA studies at the detailed planning stage.

Leisure and Cultural Vibrancy

19. Affected indicators: Archaeological Sites, Historical Sites, Significant Landscape Features (Area) and Significant Landscape Features (Point)
 - (a) Given the HK2030 Study is conducted at a strategic level, it would not be practical nor possible for the Preferred Development Option to say that it has been drawn up to avoid potential impacts to all archaeological and historical sites. For this reason and on the understanding that both archaeological sites, and historical and cultural sites of conservation value have been defined as “no-go” areas under the Study, the assessment concluded that the scenarios will have a very slight deterioration to the indicators on archaeological and historical sites. Nevertheless, consideration would be given to protect these sites and recommend necessary mitigation measures during the detailed planning stage at district planning level. Another example is that during the archaeological survey carried out for the SWC, Ngau Hom Shek Beach Site has been identified as a site of cultural heritage and a rescued excavation has been carried out before commencement of work. Performance of the “without scenario” situation would be slightly better than Scenarios 1a and 1b but no remarkable improvement to these two indicators is anticipated unless there are changes to the conservation policy in future.

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- (b) The assessment revealed that there will be small deterioration to the indicators on significant landscape features (area) and significant landscape features (point) mainly in consideration of the future container terminal development at either Lantau or Tsing Yi, NDAs development at northern New Territories, further development of new towns as well as the associated strategic roads, railways and key infrastructure to cope with the growth in population and increase in economic activities. According to the SEA findings, development of NW Lantau container terminal, if selected, may affect the open seascapes as well as the natural coastline and upland of Lantau Island, which is very sensitive to change and may be difficult to mitigate the visual impacts. Also, development of the NDAs in the New Territories may result in impacts to the natural landscapes, which may not be easily replenished once damaged. As such, special attention needs to be made at the detailed planning stage. The “without scenario” situation, comparing with Scenarios 1a and 1b, is expected to perform better in view of no NDAs development has been assumed.

Environmental Quality

20. Affected indicators: Beach Water Quality, Carbon Dioxide Emitted Per Year, Criteria Air Pollutants, Excessive Noise, Marine Water Quality, River Water Quality and Toxic Air Pollutants
- (a) As a whole, all the indicators triggered are found to have general improvements under both scenarios with the implementation of the committed control measures. However, the concentration of some air pollutants in some areas would worsen. The assessment generally echoes with the findings of the preliminary sustainability assessment conducted in 2003.
- (b) On marine water quality, the HK2030 SEA concluded that there will be an overall improvement in the water quality within HKSAR in the medium to long-term mainly because of the implementation of the HATS and various sewerage master plans. Stage 2A of the HATS is anticipated to be completed in 2013 whereas the implementation of its Stage 2B will be subject to a review to be carried out in 2010 / 11. Upon full implementation of the HATS, water quality in the

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Victoria Harbour Water Control Zone (WCZ) is expected to improve significantly.

- (c) The SEA findings also pointed out that large-scale construction / reclamation work for port facilities may have significant impacts to the water flow patterns. During the construction stage, the SW Tsing Yi option would lead to elevated Suspended Solid (SS) levels in the Western Buffer WCZ and hence adversely affect the dispersion of the pollution discharged from the Stonecutters Island Sewage Treatment Works (STW). On the other hand, the NW Lantau option would lead to elevated SS levels in North Western WCZ, resulting from the dredging and filling for the reclamation programme. Moreover, the physical presence of the new container terminal would have potential disruption to the existing sewage outfall of Tai O STW and reprovisioning of its outfall would be required.
- (d) Completion of the HATS and planned sewerage master plans would bring about moderate improvement to the beach water quality as a result of the provision of disinfection facilities at the Stonecutters Island STW, which will greatly reduce the proportion of bacterial level in Victoria Harbour WCZ and Western Buffer WCZ. The result is the possible re-opening of the bathing beaches in the Tsuen Wan area within the study timeframe of 2010.
- (e) Nevertheless, the SEA also pointed out that with implementation of these proposals, the background water pollution level from Pearl River and Shenzhen catchments will be more influential to Hong Kong in the future.
- (f) Major sources of criteria air pollutants and toxic air pollutants would be motor vehicle and power plants. In future, the HK2030 SEA identified that the most important contributor to Hong Kong's air pollution in 2030 will be from power generation³. The contribution of the marine emissions in 2030 is expected to increase. The air quality modelling results also revealed that there is likely to be general improvements in the air quality in 2030 with the implementation of the committed control

³ Based on the air quality modelling findings of the SEA, 73% of SO₂, 36% of PM₁₀ and 40% of NO_x is due to power generation, whilst 36% of NO_x is due to marine vessel traffic compared to a 12% contribution of NO_x from road based vehicles.

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measures. However, the concentration of some air pollutants in some areas would worsen. The improvement in air quality is mainly due to the adoption of a rail-based development approach for the NDAs and the use of environmentally friendly modes of transport, technological advancement (e.g. possible introduction of Euro V emission standards, use of wind and solar energy, etc.) and more cross-boundary cooperation on environmental matters are expected in the coming years.

- (g) The assessment indicated a small improvement to the indicator on excessive noise under both scenarios. There will be an improvement to the overall noise environment in the future, especially in the existing industrial and residential interface areas in view of the decrease in industrial activities and continued economic transformation in Hong Kong, despite the fact that traffic volume may increase with the growth in total population in Hong Kong. According to the road traffic noise modelling results, there will be a decrease in proportion of total population susceptible to excessive noise⁴. With a view to identifying problematic areas to reduce potential road traffic noise impacts, preliminary noise assessment has been carried out for the NDAs before the Preferred Development Option is finalized. Besides, it is also anticipated that with the development on quiet construction method / equipment as well as the adoption of a rail-based approach and use of environmentally friendly modes of transport in the medium to long-term, the noise impacts could be controlled to an acceptable level.
- (h) On the river water quality indicator, the proposed NDAs and construction of the associated road and railway projects may inevitably affect river water quality both during construction and operation stages. This could be mitigated to some extent with the provision of sewerage infrastructure. Nevertheless, it is suggested that the extent of impacts should be examined further at the detailed planning stage.

⁴ Results of the SEA revealed that the total population exposed to a road traffic noise level of > 70 dB(A) L₁₀ (1 hour) will be at about 1.4 million in 2030, or 17% of the total population.

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Mobility

21. Affected indicators: Freight Costs, Travel Distance and Travel Speed

- (a) The assessment has small to moderate improvement to the indicators on freight costs, travel distance and travel speed, and the result is in line with that of the preliminary assessment conducted in 2003.
- (b) With the completion of the new cross-boundary transport infrastructure like SWC, HZMB and ERL, it will greatly improve the accessibility between Hong Kong and the Mainland, in particular the connection between our port and airport with the PRD region. It is anticipated that there will be a general reduction of freight costs. In consideration of the possible container terminal locations, the NW Lantau would have the advantage of locating close to the HZMB, whilst the SW Tsing Yi site will benefit from the comparatively lower inter-terminal cost.
- (c) Comparing with the current situation, the Strategic Transport Assessment results indicated that the travel distance required to work and school is expected to improve very slightly in future years though more population would be accommodated in NDAs in the northern New Territories. With the proposed transport road links and railway projects implemented, it is considered that the strategic corridors would be able to cope with the demands. Nevertheless, local traffic problems would need to be dealt with separately at the detailed planning stage.
- (d) On the indicator of travel speed, the Strategic Transport Assessment revealed that the average vehicular travel speed is expected to maintain or improve very slightly in future years with the implementation of the planned cross-boundary and domestic transport infrastructure as well as other planning strategies to meet future needs of population growth and increase in economic activities, e.g. adoption of a rail-based approach in developing the NDAs. New container terminal at NW Lantau, if selected, will also result in an improvement to cargo vehicle movement in the urban area.

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Other Major Considerations: Non-quantifiable indicators

22. Apart from the above, the following non-quantifiable indicators should be taken into account:
- (a) The Preferred Development Option for the HK2030 Study is formulated based on our vision to develop Hong Kong as the “Asia’s world city”. It has taken into account the requirement for provision of adequate land to meet the future needs for population and economic growth, housing, employment, development of a new container terminal (with location at either NW Lantau or SW Tsing Yi) and other strategic infrastructure. In devising the Preferred Development Option, we need to ensure that the development strategies formulated under the Study could be realized in a sustainable manner and would be conducive to enhance the quality of our living environment.
 - (b) In line with the preliminary sustainability assessment conducted in 2003, the Preferred Development Option, apart from setting strategy to meet long-term housing needs, assumes that existing urban sites would be developed first. As a result, existing and planned infrastructure could be better utilized and the cost of developing NDAs could also be spread out to a longer timeframe. Such an approach is also in harmony with the Government’s First Sustainable Development Strategy announced in 2005, which emphasizes the importance to speed up improvements to the older urban area environment.
 - (c) The Preferred Development Option would enhance Hong Kong’s overall urban landscape through thinning out of population from the congested urban districts, urban renewal projects, Kai Tak Planning Review and a number of area improvement schemes. This will help foster a sense of place amongst the citizens, provide people with a greener and cleaner environment as well as an improved aesthetical value both in terms of the cityscapes and urban layout, which will in turn result in improvements to the social, psychological and behavioral dimensions of the community and help achieve our vision of providing people with a quality living environment.

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- (d) On the other hand, according to the findings of the HK2030 SEA, the key landscape (and visual) impacts relating to the Preferred Development Option (under both Scenarios 1a and 1b) will be that associated with the fundamental change in landscape character resulting from the NDAs development in the northern New Territories. The SEA, by making reference to the “Landscape Character Map of Hong Kong” published by the Planning Department, concluded that it will be impossible to mitigate the impacts resulting from transformation from largely rural landscapes to medium- to high-rise urban environment. To minimize the possible landscape and visual impacts on the surrounding area, the layout for the NDAs will be drawn carefully and mitigation measures such as landscape planting and stepped building heights would be recommended at the detailed planning stage.

Development of the future container terminal at NW Lantau, if selected, will result in more significantly adverse landscape impacts than SW Tsing Yi container terminal option as the existing landscape character of NW Lantau is remote and exposed, characterized by open seascapes (punctuated by marine vessels) as well as natural coastline and uplands of Lantau Island. This area, according to the HK2030 SEA, is very sensitive to change and it will be impossible to mitigate the visual impacts of the port facilities on tourists, hikers and pleasure crafts.

- (e) With respect to the urban design aspect, the Preferred Development Option aims at providing better quality living environment to people through the provision of pedestrian friendly environment, improved open space network as well as better access for the disabled and elderly. These are witnessed in the implementation of NDAs development, urban renewal projects, the on-going area improvement schemes and pedestrian plans in various urban districts. Again, this also echoes with the Government’s recently announced First Sustainable Development Strategy, which recommended, inter alia, the need to promote sustainable urban planning and design practices that will ensure Hong Kong to become an attractive and enjoyable place in which to live and work.

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- (f) The Preferred Development Option formulated under the Study is prepared with reference to the Government's latest policy initiatives and the results of various detailed impact assessments as well as the views / comments of the community obtained during the study process. To gauge the views of the public, a total of three rounds of consultation had been conducted in 2001, 2002 and 2003 respectively. To solicit the views of the Mainland authorities, in particular their views and cooperation on the topic of strengthening links with the Mainland, the Study Team, during Stage 3 Public Consultation, visited various planning bureaux / authorities in the PRD region and Macao. In the light of the above, the public acceptability of the Preferred Development Option formulated under the Study might be positive. A summary of comments received in the previous three stages of public consultation is at **Appendix 3**.

Analysis and Evaluation

23. The Sustainability Assessment diagram is at **Appendix 2**.
24. It is noted that both scenarios 1a and 1b, i.e. with possible container terminal locations at NW Lantau or SW Tsing Yi, will bring about improvement to the Economy, Health and Hygiene, Society and Social Infrastructure, and Environmental Quality, but have adverse effects on some of the indicators under Biodiversity and Leisure and Cultural Vibrancy. In comparison, scenario 1b (SW Tsing Yi container terminal option) will bring about lesser environmental impacts than scenario 1a (NW Lantau container terminal option).

Major Cross-sectional Issues

25. The findings of the preliminary sustainability assessment conducted in 2003 is generally applicable to the assessment. In brief, it is revealed that the environmental impacts are mainly caused by development of transportation infrastructure and port facilities as well as NDAs at the northern New Territories. Pending the completion of the Ecological, Fisheries and Water Quality Impact Assessment Study for the proposed container terminal development at NW Lantau, we will have a more in-depth and thorough understanding of the likely impacts of the two possible container terminal locations. With respect to the impacts of other major development

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proposals, they have been assessed and evaluated in broad terms under the HK2030 SEA and / or the detailed technical assessments before the Preferred Development Option is finalized. Further studies / assessments would be carried out at the detailed planning stage.

26. As strengthening links with the Mainland is one of the major planning directions of the HK2030 Study, the impacts on environment is mainly caused by the construction of cross-boundary strategic road link and rail projects like HZMB and ERL as well as the possible development of the Frontier Closed Area (FCA), in particular the Lok Ma Chau Loop, to cater for our future development needs in view of its proximity to the existing / planned cross-boundary facilities and Shenzhen's central business district. From a macro development point of view, development of the Loop as well as the FCA will have economic benefits if it can combine the strengths of Hong Kong with those of Shenzhen. On the other hand, development of additional cross-boundary transport facilities, apart from the benefits of making optimized use of both the ports and airports in the PRD region and providing impetus for Hong Kong's further growth, it will in turn support and enhance development of the PRD region from the economic development point of view. From the social perspective, such developments will also help speed up the integration of Hong Kong with the Mainland. Nevertheless, in view of the complexity of these issues, detailed assessments are therefore required to assess the possible impacts at the implementation stage. Regarding the future use of the areas to be released from the FCA, a consultancy study will soon be commissioned by the Planning Department with a view to formulating a planning framework to guide the conservation and development of the area.

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Recommendation

27. The sustainability of the Preferred Development Option for the HK2030 Study is confirmed as it will help realize our vision to develop Hong Kong as “Asia’s world city”. The major proposals would provide for the necessary infrastructure to cope with our future population and economic growth. They will also bring about positive effects on the social aspect in terms of providing a better quality living environment and enhancing the accessibilities to different kinds of facilities. In accordance with the findings of the assessment, both scenarios perform much better than the “without scenario” situation. There is no significant difference between Scenarios 1a and 1b in most of aspects, except the Tsing Yi container terminal option will perform slightly better on those indicators related to Biodiversity.

Attachments

- Appendix 1: Major Assumptions, Planning Parameters and Development Proposals of the Preferred Development Option
- Appendix 2: Sustainability Assessment Diagram
- Appendix 3: A summary of comments received in the public consultations of the previous three stages of the HK2030 Study
- Appendix 4: A list of those indicators triggered in the Sustainability Assessment process but are considered irrelevant to the Scenario

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Appendix 1

Major Assumptions, Planning Parameters and Development Proposals of the Preferred Development Option

The following is a summary of major planning parameters and development proposals, assumptions on key infrastructure facilities, road network and rail projects assumed.

I. Population and Employment

	Base Year	2010	2020	2030
Resident Population	6.8	7.2	7.8	8.4
Employment	3.0	3.5	3.7	4.0

(in million)

Note:

Assumes population will grow at a slower rate of about 0.7% per annum.

A steady rate of economic growth (annual GDP growth at 4.0% initially and gradually falling to 3.0%) is assumed.

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II. Housing Land Requirement

	Base Year	2010	2020	2030
Housing Stock	2,394	2,642	2,948	3,319
Accumulative Requirement	-	248	553	924

(in thousand units)

Note:

In the period between 2003 and 2030, a total requirement of about 924,000 units (averaging 34,000 per year) is assumed.

III. Economic Land Requirement

	Base Year	2010	2020	2030	Demand 2003-30	Req't 2003-30
CBD Grade A Offices	4.1	5.1	5.8	6.7	2.6	2.7
General Business	33.0	35.5	36.2	38.2	5.2	5.4
Special Industries	4.0	5.5	6.0	6.7	2.7	2.9
Total	41.1	46.2	47.9	51.6	10.5	11.0

(GFA in million m²)

Note:

'General Business' land use covers private offices (excluding CBD Grade A offices), industrial / office uses, flatted factories and private storages.

'Special Industrial Uses' involve high value-added, high-tech production and logistics activities such as industrial estates, science park and Cyberport, etc.

The floorspace requirement takes into account the existing surplus stock and the need to accommodate a 'natural vacancy' factor, a level of vacancy even under a normal healthy market situation.

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IV. Strategic Infrastructure

Port Development

Our assumptions for future container throughput and terminal capacities are as follows:

	Base Year	2010	2020	2030
Cargo Throughput	12.8	18.0	28.8	34.5
Terminal Capacity				
CT 1 – 8, CT9 (part)	13.1	-	-	-
CT 1 – 9	-	19.8	21.7	23.0
CT 10	-	-	7.2	11.6
Total	13.1	19.8	28.9	34.6

(in million TEUs)

Source: HKP2020 Study

Note:

The maximum capacity of the existing container port (CT 1 to 9) is around 18.6 million TEUs, with a potential for further increase by 1.7 million TEUs, and possibly more if additional land and other productivity measures are introduced. If the projected demand is realized, there is likely to be a need for a new container terminal (CT 10) in the first half of the next decade.

To determine the optimum location for the new terminal, two locations, namely Northwest Lantau and Southwest Tsing Yi, have been examined under the Study on Hong Kong Port – Master Plan 2020 (HKP2020 Study). Whilst a decision on the preferred location for the new terminal is pending completion of the Ecological, Fisheries and Water Quality Impact Assessment Study for the proposed container terminal development at Northwest Lantau, the HK2030 Study has taken into account both possible container terminal locations in the Reference Scenario for the purpose of assessment.

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Port Back-Up (PBU) Land

The current supply of PBU land is 378 ha in 2003. The HKP2020 Study predicts that the total demand for PBU land will increase with port throughput but the trend for these uses to move over the boundary near the cargo centres in the PRD is expected to continue. If the projected demand of PBU land is to be realized, we would need to identify additional land to address this demand.

	Base Year	2010	2020	2030
PBU Land				
Demand	260	204	309	398
Supply	378	-	-	-
Known sources	-	439	480	500

(in hectares)

Source: HKP2020 Study and Planning Department's estimation

Airport

In 2005, the Hong Kong International Airport (HKIA) provided services to 40.7 million passengers and handled 3.4 million tonnes of cargo. The Airport Authority Hong Kong has recently published an update of the Airport Master Plan (known as the HKIA 2025) to guide the future development of the HKIA up to 2025. It has projected that by 2025, HKIA will serve 80 million passengers, handle 8 million tones of cargo and 490,000 aircraft movements each year.

Although it has proposed studies on the feasibility for the construction of a third runway at the HKIA, this proposal has not been taken on board under the Preferred Development Option or any of the "What If" Scenarios for assessment in the absence of any details on this proposal at this stage.

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V. Committed and Assumed Major Transport Projects

Railway Projects

By 2010 (committed in addition to existing rail network)
<ul style="list-style-type: none"> • Tseung Kwan O South Station • Kowloon Southern Link • Sheung Shui to Lok Ma Chau Spur Line
By 2020 (in addition to 2010 network)
<ul style="list-style-type: none"> • Shatin to Central Link • Kwun Tong Line Extension • Northern Link • Hong Kong Section of Guangzhou-Shenzhen-Hong Kong Express Rail Link • West Island Line • South Island Line (East)
By 2030 (in addition to 2020 network)
<ul style="list-style-type: none"> • North Hong Kong Island Line • South Island Line (West)

Major Road Projects

By 2010 (committed in addition to existing network)
New Territories <ul style="list-style-type: none"> • Route 8 (Shatin to Tsing Yi) • Castle Peak Road Widening (Tsuen Wan Area 2 to Siu Lam)
Cross Boundary <ul style="list-style-type: none"> • Hong Kong - Shenzhen Western Corridor • Deep Bay Link

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By 2020 (in addition to 2010 network)

Hong Kong

- Central - Wan Chai Bypass
- Island Eastern Corridor Improvement (Causeway Bay - North Point)

Kowloon

- Gascoigne Road Flyover widening
- Central Kowloon Route
- Trunk Road T2 (Kai Tak – Cha Kwo Ling)

New Territories

- Tolo Highway / Fanling Highway widening (Island House Interchange - Fanling)
- Tseung Kwan O - Lam Tin Tunnel
- Cross Bay Link at Tseung Kwan O
- Hiram's Highway Dualling (Clearwater Bay Road - Sai Kung Town)
- Lantau Road P1 (Tung Chung – Sunny Bay)
- *Strategic North-South Link between NWNT and North Lantau

Cross Boundary

- ^Hong Kong-Zhuhai-Macao Bridge (HZMB)
- HZMB's North Lantau Highway Connection

By 2030 (in addition to 2020 network)

Hong Kong

- The Fourth Harbour Crossing
- Route 4 (Kennedy Town – Aberdeen) as an alternative to South Island Line (West)

New Territories

- Eastern Highway (NENT to Kowloon)
- Tsing Yi Lantau Link - with Coastal road and Chok Ko Wan Link Road (Pa Tau Kwu Section)

Notes:

1. *The Strategic North-South Link between NWNT and North Lantau stands for the possible alternative options being considered in the NWNT Traffic and Infrastructure Review, which cover candidate projects of Lam Tei Tunnel, Tai Lam Chung Tunnel, Tsing Lung Bridge, Tuen Mun Western Bypass, Tuen Mun-Chek Lap Kok Link, Tuen Mun Eastern Bypass, and Link Options between Tuen Mun and Lantau.

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2. ^The Governments of Guangdong, Hong Kong and Macao have commissioned a consultant to study on the locations and arrangements of the Boundary Crossing Facilities (BCF) under the mode of “Separate Location of BCF” for the HZMB.
3. It should be noted that projects assumed are purely postulates for strategic transport assessments of the development scenarios under the Study. The need, scope and timing of each of the assumed transport projects would be subject to further review.
4. The proposed Liantang / Heung Yuen Wai control point and the connection to the Shenzhen Eastern Corridor, which is subject to further studies, has not been included in the Preferred Development Option for assessment

VI. Demand for Cross-Boundary Road Traffic

Under the Reference Scenario, the daily cross-boundary (two-way) vehicle traffic on a normal weekday is assumed as follows:

	Car	Bus / Coach	Total
Base Year	8,200	3,600	11,800
2010	34,900	4,800	39,700
2020	63,000	9,400	72,400
2030	96,400	12,900	109,300

	Goods Vehicle	Container Truck	Total
Base Year	14,800	12,800	27,600
2010	24,400	23,100	47,500
2020	35,000	35,400	70,400
2030	39,400	39,900	79,300

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VII. Other Strategic Infrastructure

Waste Management	<ul style="list-style-type: none"> The capacity of solid waste handling facilities could be enhanced by extension of existing landfills and planning of new landfills as well as development of integrated waste management facilities and the EcoPark.
Sewage Treatment	<ul style="list-style-type: none"> Remaining stages of the HATS and sewerage master plan reviews will be completed before 2020.
Power Supply	<ul style="list-style-type: none"> Gradual change from coal to gas power generation, supplemented by other forms of renewable energy such as wind power, solar energy (no major land implications) etc.
Water Supply / Treatment	<ul style="list-style-type: none"> Dongjiang water will remain as one of the major sources of raw water and the supply quantity should be commensurate with the demand. Desalination is one of the possible alternative water sources. Coastal sites for such installations may be required subject to further study. A feasibility study on the engineering strategy for the Total Water Management in Hong Kong is being conducted which will map out the long-term strategy on the distribution of water supply from various sources for meeting the water demand.
Telecommunications	<ul style="list-style-type: none"> Extension of Teleport is envisaged to cater for long-term requirement.

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VIII. Major Development Proposals / Projects

The following major development proposals are assumed to take place or completed within the study timeframe of the HK2030 Study:

Development Proposals
Central Reclamation III
Cyberport
Hong Kong Disneyland
Hong Kong International Airport Developments
Kai Tak Development
Lantau Concept Plan proposals
Logistics Park at Siu Ho Wan
New Development Areas - Kwu Tung North, Fanling North & Ping Che / Ta Kwu Ling (Three-in-One Scheme) and Hung Shui Kiu
Ngong Ping 360
Ocean Park Redevelopment
Recovery Park in Tuen Mun
Science Park at Pak Shek Kok
Tseung Kwan O Further Development
Tung Chung Development
Urban renewal projects (various)
Wanchai Development II
West Kowloon Cultural District

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Appendix 2

Sustainability Assessment Diagram (Assessment Year : 2030)

Indicators	Without Scenario	Scenario 1a	Scenario 1b
Archaeological sites	○	○	○
Beach water quality	☑☑☑	☑☑☑	☑☑☑
Carbon dioxide emitted per year	☑	☑☑	☑☑
Communicable diseases	○	☑☑	☑☑
Construction waste	○ ○	○ ○ ○	○ ○ ○
Cost-Benefit	○	☑☑	☑☑
Criteria air pollutants	☑	☑☑	☑☑
Education attainment	○	☑	☑
Education expenditure	○	☑☑	☑☑
Energy consumption	○	☑☑	☑☑
Excessive noise	○ ○	☑☑	☑☑
Fixed capital	☑☑	☑☑☑	☑☑☑
Freight costs	○	☑☑	☑☑
Historical sites	○	○	○
Housing inadequacy	○	☑☑☑	☑☑☑
Housing waiting list	☑☑	☑☑☑	☑☑☑
Living space	○	☑☑	☑☑
Managed marine habitat	○ ○	○	○
Managed terrestrial habitat	○ ○	○	○
Marine eco-value	☑☑	○ ○ ○	☑☑
Marine water quality	☑☑	☑☑	☑☑
Open space shortfall	☑☑	☑☑☑	☑☑☑
Private rent	○	☑☑☑	☑☑☑
Respiratory diseases	☑	☑☑	☑☑
River water quality	○	☑☑	☑☑
Significant landscape features (area)	○	○ ○	○ ○
Significant landscape features (point)	○	○ ○ ○	○ ○
Terrestrial eco-value	○ ○	○ ○ ○	○ ○ ○
Toxic air pollutants	○	☑☑	☑☑
Travel distance	☑	☑	☑
Travel speed	☑	☑	☑
Unemployment rate	○	☑☑	☑☑



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Note:
Scenario 1a: Preferred Development Option with possible container terminal location at Northwest Lantau
Scenario 1b: Preferred Development Option with possible container terminal location at Southwest Tsing Yi

Legends

○ Annotates no change to the current baseline situation

	Improvement	Deterioration
Very Small	☑	○
Small	☑☑	○○
Moderate	☑☑☑	○○○
Moderate to Large	☑☑☑☑	○○○○
Large	☑☑☑☑☑	○○○○○
Very Large	☑☑☑☑☑☑	○○○○○○

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Appendix 3

A Summary of Comments Received in the Previous Three Stages of HK2030 Public Consultation

Consultation for Stage 1 (formulation of objectives), Stage 2 (key issues and evaluation criteria) and Stage 3 (scenario and development options) were completed in April 2001, March 2002 and March 2004. Below is a summary of major comments received in these three stages of public consultation:

Stage 1

- There are large degree of community consensus on the mission of the HK2030 Study which is to achieve the vision for Hong Kong to become Asia's world city and a major city of China;
- The Importance of sustainable development and better living environment has been widely recognised;
- It is agreed that there is a need to enhance attractiveness of harbour and cityscape;
- Population policy is needed; and
- Need for strong ties with PRD has been established.

Stage 2

- It is urged for additional cross-boundary transport connections;
- Better utilization of land and water resources are needed; and
- There is a need to strike a balance between economic development, e.g. further port expansion, and environmental sustainability.

Stage 3

- The provision of a quality living environment as a key planning direction is supported, and it is urged for measures to enhance the living environment be put in place as soon as possible;
- The direction of strengthening links with Mainland is supported;

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- The need for a 'vision-driven' population assumption for 2030 has been accepted, however, the assumption of the population may be on the high side;
- It is considered that the prevailing development density levels are generally acceptable, however, lower plot ratios should be introduced on new development sites such as the harbour-fronts;
- There are diverse views on consolidation or decentralization development pattern;
- There are diverse views on development of the Frontier Closed Area (FCA). Those did not support mainly for conservation or environmental protection reasons, others urged for an early opening up of the FCA and that developments should be allowed in the FCA;
- There are overwhelming urge for the Government to minimise the extent of reclamation, and to enhance public involvement in the planning of harbour-front areas; and
- There are mixed views on the need for a university town.

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Appendix 4

Indicators Triggered in the Sustainability Assessment Process but are Considered Not Relevant to the Scenarios

Indicators	Reasons for Removing Indicators
Cancer	Not relevant
Elderly care services	No direct impact
Freshwater supplied	No significant impact; Donjiang water is the more important source of water supply to Hong Kong
Income differential	No direct impact
Landfill capacity	No direct impact
Local freshwater	No direct impact
Municipal waste	No significant difference in quantity of municipal waste per capita is anticipated
Registered volunteers	Not relevant
Students joining community services	Not relevant
Urbtix tickets sales	Not relevant

Annexes

Annex V: Comparison of Future Hong Kong Container Port Expansion Sites

Annex V

Comparison of future Hong Kong container port expansion sites



	South West Tsing Yi	North West Lantau
	Economic & Financial	
Pros	<ul style="list-style-type: none"> • Potential to be financially viable: AIFC* of HK\$723 per TEU, FIRR** of 12% • Economic net present value (NPV) of HK\$12.8 billion*** • Synergy with Container Terminals No. 1-9 • Flexibility for incremental expansion 	<ul style="list-style-type: none"> • Potential to be financially viable : AIFC* of HK\$576 per TEU, FIRR of 18%# • Economic NPV of HK\$15.7 billion*** • Lower cost, more efficient layout and opportunity for expansion beyond 2020
Cons	<ul style="list-style-type: none"> • Costs of resumption and re-provisioning could increase by HK\$ 4.9 billion 	<ul style="list-style-type: none"> • If standalone link required, costs become prohibitive • Creates a split port#
	Environmental	
Cons	<ul style="list-style-type: none"> • Waste management – remediation of oil terminals • Re-provisioning of potentially hazardous installations • Water quality – possible impact on the Harbour Area Treatment Scheme discharge 	<ul style="list-style-type: none"> • Ecology - impact on the Chinese White Dolphin (direct loss of habitat) • Landscape – permanent change to rural/ undeveloped area including visual impact on Tai O
	Social (Public Acceptability)	
Cons	<ul style="list-style-type: none"> • Impacts at re-provisioned sites • Public may question the logic of re-provisioning within HK 	<ul style="list-style-type: none"> • Development of “virgin/ greenfield” site & acceptability of ecological impact
	Planning and Lands	
Cons	<ul style="list-style-type: none"> • Resumption of land & re-provisioning 	<ul style="list-style-type: none"> • Change to current planning intention for leisure, recreation and protection of natural landscape

V Comparison of future Hong Kong container port expansion sites

	Transport Planning	
Pros	<ul style="list-style-type: none"> • Makes better use of existing infrastructure 	<ul style="list-style-type: none"> • Advantageously positioned for west Pearl River Delta
Cons	<ul style="list-style-type: none"> • Container Terminal No. 10 & River Trade Terminal cause peak hour traffic to rise : <ul style="list-style-type: none"> - vehicle hours by 5.3%; - vehicle kilometers by 3.6%. 	<ul style="list-style-type: none"> • Container Terminal No. 10 & River Trade Terminal cause peak hour traffic to rise : <ul style="list-style-type: none"> - vehicle hours by 5.8%; - vehicle kilometers by 5.3%. • If Hong Kong-Zhuhai-Macao bridge not in place then site needs link to North Lantau Highway at considerable additional cost • NWL would also benefit from Tuen Mun Chek Lap Kok Link and Tuen Mun Western Bypass being in place before 2020
	Marine Risk	
Pros	<ul style="list-style-type: none"> • Acceptable, although NWL preferred 	<ul style="list-style-type: none"> • Acceptable
	Implementation, Risks to Programme & Institutional Considerations	
Cons	<ul style="list-style-type: none"> • Programme uncertainty due to resumption, re-provisioning & cost of decontamination 	<ul style="list-style-type: none"> • Depending on Hong Kong-Zhuhai-Macao Bridge being available when Container Terminal No. 10 is being commissioned • The fairway is outside Hong Kong waters, thus a new administrative policy will need to be agreed with the Mainland • Split port requires new institutional arrangements in terms of tug & pilot facilities, marine traffic control and police facilities

Comparison of future Hong Kong container port expansion sites



Notes :

- * Average Incremental Financial Cost (AIFC) : assumes a WACC (Weighted Average Cost of Capital) of 10%.
- ** Financial Internal Rate of Return (FIRR) : assumes an average fee of HK\$800/TEU.
- *** Assumes Economic Opportunity Cost of Capital of 10%.
- # NWL costs include assumptions about the additional operational costs generated by a split port.
Costs common to both options (e.g. provision of ancillary supporting facilities) are included in the financial and economic assessments.

Source : Study on Hong Kong Port – Master Plan 2020

Annexes

Annex VI: List of Committed and
Assumed Major Transport Projects

Annex VI

List of committed and assumed major transport projects



Railways Projects

By 2010 (Committed in addition to existing rail network)

- Tseung Kwan O South Station
- Kowloon Southern Link
- Sheung Shui to Lok Ma Chau Spur Line

By 2020 (in addition to 2010 network)

- Shatin to Central Link (SCL)
- Kwun Tong Line Extension
- Northern Link (NOL)
- Hong Kong Section of Guangzhou-Shenzhen-Hong Kong Express Rail Link
- West Island Line
- South Island Line (East)

By 2030 (in addition to 2020 network)

- North Hong Kong Island Line
- South Island Line (West)

V List of committed and assumed major transport projects

Major Road Projects
By 2010 (committed in addition to existing network)
New Territories
<ul style="list-style-type: none"> • Route 8 (Shatin to Tsing Yi) • Castle Peak Road Widening (Tsuen Wan Area 2 to Siu Lam)
Cross-boundary
<ul style="list-style-type: none"> • Hong Kong - Shenzhen Western Corridor • Deep Bay Link
By 2020 (in addition to 2010 network)
Hong Kong
<ul style="list-style-type: none"> • Central -Wan Chai Bypass • Island Eastern Corridor Improvement (Causeway Bay-North Point)
Kowloon
<ul style="list-style-type: none"> • Gascoigne Road Flyover widening • Central Kowloon Route • Trunk Road T2 (Kai Tak-Cha Kwo Ling)
New Territories
<ul style="list-style-type: none"> • Tolo Highway/Fanling Highway widening (Island House Interchange - Fanling) • Tseung Kwan O - Lam Tin Tunnel • Cross Bay Link at Tseung Kwan O • Hiram's Highway Dualling (Clearwater Bay Road – Sai Kung Town) • Lantau Road P1 (Tung Chung – Sunny Bay) • *Strategic North-South Link between NWNT and North Lantau
Cross-boundary
<ul style="list-style-type: none"> • ^Hong Kong-Zhuhai-Macao Bridge (HZMB) • HZMB's North Lantau Highway Connection
By 2030 (in addition to 2020 network)
Hong Kong
<ul style="list-style-type: none"> • The Fourth Harbour Crossing • Route 4 (Kennedy Town – Aberdeen) as an alternative to South Island Line (West)
New Territories
<ul style="list-style-type: none"> • Eastern Highway (NENT to Kowloon) • Tsing Yi Lantau Link – with Coastal road and Chok Ko Wan Link Road (Pa Tau Kwu Section)

List of committed and assumed major transport projects



Notes:

1. *The Strategic North-South Link between NWNT and North Lantau stands for the possible alternative options being considered in the NWNT Traffic and Infrastructure Review, which cover candidate projects of Lam Tei Tunnel, Tai Lam Chung Tunnel, Tsing Lung Bridge, Tuen Mun Western Bypass, Tuen Mun-Chek Lap Kok Link, Tuen Mun Eastern Bypass, and Link Options between Tuen Mun and Lantau.
2. ^The Governments of Guangdong, Hong Kong and Macao have commissioned a consultant to study on the locations and arrangements of the Boundary Crossing Facilities (BCF) under the mode of “Separate Location of BCF” for the HZMB.
3. It should be noted that projects assumed are purely postulates for strategic transport assessments of the development scenarios under the Study. The need, scope and timing of each of the assumed transport projects would be subject to further review.
4. The proposed Liantang / Heung Yuen Wai control point and the connection to the Shenzhen Eastern Corridor, which is subject to further studies, has not been included in the Preferred Development Option for assessment.

