For discussion on 26 September 2015

LanDAC Paper No. 08/2015

LANTAU DEVELOPMENT ADVISORY COMMITTEE

Planning and Conservation Subcommittee Work Progress Report

PURPOSE

1. This paper aims at reporting the work progress of the Planning and Conservation Subcommittee (PC SC) to the Lantau Development Advisory Committee (LanDAC).

WORK PROGRESS REPORT

- 2. Subsequent to the last meeting, the PC SC conducted held its second and third joint meetings with the Economic and Social Development Subcommittee (ESD SC) on 29 May 2015 and 10 September 2015.
- 3. The following matters were discussed at the second joint PC SC and ESD SC meeting held on 29 May 2015:

The Second Joint PC SC and ESD SC Meeting

- 3.1 In response to the request of The United Committee of North West Lantau Island (UCNWLI), representatives of the UCNWLI were invited to the meeting to give a briefing on their proposals and ideas. Members noted the UCNWLI's expectation and supplementary information on the development of Lantau.
- 3.2 "Consolidated Economic Development Strategy for Lantau and Preliminary Market Positioning Study for Commercial Land Uses in Major Developments of Lantau" Initial Economic Development Concepts (PC SC Paper No. 03/2015)
 - a. the Planning Department's (PlanD) representative and the consulting team introduced the objectives, scope and progress of the "Consolidated Economic Development Strategy for Lantau and Preliminary Market Positioning Study for Commercial Land Uses in Major Developments of Lantau" (the Study) and the preliminary concept of the economic development for Lantau and follow up works proposed by the consulting team. Major points were as follows:
 - It was proposed that the strategic geographical location of Lantau should be fully capitalized (including Hong Kong's status of being an international and regional gateway) in promoting new economic activities vigorously. The development direction might encompass three development concepts:

A Thriving Community

focus to be placed on the need of the existing and future population, provision of
job opportunities and provision of appropriate housing types to attract airport
employees and higher-skill workers to Lantau, and providing catalyze for
economic activities and industries that would provide abundant employment
opportunities for the making of a vibrant and diverse community for living,
working and leisure;

A New Platform for the Pillars

• to develop Lantau into an economic hub that could support the four major pillar industries of Hong Kong (i.e. financial services, tourism, trade and logistics and professional and industrial cum commercial supporting services), thereby providing a new platform for these pillar industries; and

A Bridge to Tomorrow

- to develop Lantau into a platform showcasing Hong Kong's and the world's innovation, high efficiency and top originality.
- b. At the meeting, major views raised by Members were summarized as follows:
 - the consultants should first identify the unique market positioning suitable for the development of Lantau;
 - the consultants should promote the development of suitable industries, and should address the issues of matching employment opportunities and skill requirements of workers;
 - research & development (R & D) was of vital importance to the economic development of Hong Kong in the long-term. The consultants should continue investigating ways to attract R & D industries to Lantau and researching/analyzing thoroughly why resources allocation for R & D in Hong Kong lagged behind other regions nearby, such as tax incentives, support of Government policies, coordination of different industries with R & D of universities, etc.;
 - the consultants should continue to study the relationships between retailing, tourism, business tourism, logistics, etc. and ways to create synergistic/amalgamation effects for Lantau;
 - there was no lack of employment opportunities on Lantau and the focus should be
 placed on ways to attract talents including overseas talents to work in Lantau.
 The positioning of Lantau should not be on the promotion of backup service but on
 the enhancement of its frontline industries and innovation/knowledge-based
 services; and
 - it was hoped that more concrete proposals on the type, scale and distribution would be made by the consultants, for example, in the case of hotels, the type/number, room numbers, facilities, location, etc..
- c. The PC SC noted the initial concept of the economic development for Lantau and follow up work as proposed by the consultants.

The Third Joint PC SC and ESD SC Meeting

- 3.3 Overall Spatial Planning and Conservation Concept for Lantau (PC SC Paper No. 04/2015)
 - a. PlanD's representative introduced the overall spatial planning and conservation concept for Lantau.
 - b. According to the enhanced four major planning directions, planning principles and recommended economic development concepts, the proposed overall spatial planning and conservation concepts for Lantau were as follows:
 - North Lantau Corridor being focused on strategic economic and housing development;
 - Northeast Lantau being developed for leisure, entertainment and tourism;
 - East Lantau Metropolis (ELM) being a long-term strategic growth area;
 - to search for other suitable development spaces in the remaining areas and to **optimise Government land**, such as the consolidation of correctional facilities and investigation of cavern and underground space development;
 - to develop **the majority area of Lantau** for leisure/recreation, cultural and green tourism under the premise of furthering ecological and cultural conservation; and
 - **provision of infrastructure** to complement the overall development of Lantau.
 - c. To achieve economy of scale and amalgamation effects brought by population and economic activities as in existing new towns, it would be appropriate for the population of the ELM to be ranging from 400,000 to 700,000 so as to promote a diversified and vibrant new development area. Currently, the planned population of Lantau was approximately 300,000. Hence, the estimated population of Lantau could reach 1,000,000, whereas the number of jobs might increase from those existing and planned projects totaling 134,000 to approximately 470,000.
 - d. Regarding conservation, it was proposed to strengthen ecological, historical, cultural and landscape conservation and the "point-line-plane" linkages. The majority areas of Lantau would be for recreation, leisure, cultural and green tourism. Under the premise of conservation, it was proposed to better utilize country parks, to form a network of marine parks by linking existing and proposed marine parks, to appropriately introduce elements of recreation and green tourism, and to promote ecology, cultural tourism and education.
 - e. Lantau should be provided with strategic transport infrastructures including rail and road transport system supplemented by water transport. Eventually, the system should be developed into two major transport corridors including a railway corridor and a curve-shaped road corridor linking up Northwest New Territories, Lantau and the metropolitan areas. Through the Hong Kong-Zhuhai-Macau Bridge, the Tuen Mun-Chek Lap Kok Link, the Kong Sham Western Highway and Shenzhen Bay Bridge, Lantau would be connected with Shenzhen and Pearl River Delta areas.
 - f. The proposed concept had already taken into account Members', co-opted Members' and the public's suggestions/comments on development, land use planning, environmental and conservation aspects for Lantau. Suggestions/views had been

suitably reflected and incorporated in the Overall Spatial Planning and Conservation Concepts for Lantau. Notwithstanding, the feasibility and details of specific proposals (including options and implementation priority) would be subject to the concerned planning and topical studies and the consideration/follow up action of other subcommittees/concerned Government departments.

- g. At the meeting, the Hon Wu Chi-wai raised objection to the proposed scale of Lantau development (i.e. reaching a population level of 1,000,000). He considered that the development would require the support of a large scale transport system and thus would probably induce considerable developments to South Lantau, thereby seriously compromising and contradicting the goal of conserving South Lantau, arousing debates in the community and even hindering the overall development of Hong Kong as well as Lantau. Instead, it would be more desirable to consider reclaiming Kau Yi Chau first as less transport infrastructure would be required. The remaining development proposal might be considered further depending on the circumstances at the time.
- h. Members were generally supportive of the proposed concepts and their major views were summarized as follows:
 - supported bold and breakthrough ideas to suit and meet the requirement for land of the community, improving the situation of over concentration of developments at Northern Hong Kong Island and Kowloon. Projects with highest consensus level should be taken forward and considered for implementation by phases. Further, development and conservation were not necessarily in conflict with each other, but should be taken forward with care and in balance;
 - it was understandable that the estimated residential population reaching 1,000,000 level might induce concerns and misconceptions. The ELM proposal would provide opportunities for coping with the need of land supply and reserve for housing/commerce/industries/community facilities associated with population growth in the long run, as well as improving the living environment. Hence, the proposed 1,000,000 residential population was considered reasonable (some even considered it inadequate). Further, a new transport/railway system had to be provided to support and consummate the proposed ELM development;
 - it was proposed that a more detailed/clearly phased development target with the road map and timetable of the associated phased transport infrastructure be provided;
 - the consolidation of correctional facilities to release spaces for development was a proactive approach. A member however reminded that due regard should be paid to minimizing impacts of the proposal on local areas. As to the proposed Luk Wu/Keung Shan Zen Conservation Area, particular attention should be paid to maintaining a tranquil retreat environment for the locals; and
 - supported the proposed ecological, conservation and green tourism at South Lautau and Northwest Lantau. It was however suggested that consideration should be given to provide appropriate supporting transport facilities so as to facilitate the flow of emerging visitors.
- i. representative of PlanD explained that the overall land use and conservation concept for Lantau was introduced to Members and the proposal had to be taken forward in a progressive manner and its implementation hinged on the feasibility of the projects.

Apart from this, the ELM proposal was mainly to satisfy the need of the territory for housing, economic and industrial development. Besides, reclaiming the Central Waters for strategic growth would complement the objective of reserving the majority area of Lantau for conservation, recreation and green tourism. PlanD concurred that the timeframe of development and transport infrastructure could be more clearly presented.

- j. The PC SC endorsed the proposed Overall Spatial Planning and Conservation Concept for Lantau. The Hon. Wu Chi Wai raised objection (see Para. g above).
- 3.4 In response to Members' suggestion and comments raised at the meeting, PlanD had refined the Overall Spatial Planning and Conservation Concept for Lantau in PCSC Paper No. 04/2015 to incorporate broad timeframe for major projects and supporting strategic transport infrastructure and more detailed explanation on the growth of estimated population and employment opportunities (see **Attachment**: Revised Overall Spatial Planning and Conservation Concept for Lantau).

CONCLUSION

- 4. Since the establishment of the PC SC in September 2014, in formulating the Overall Spatial Planning and Conservation Concept, the PC SC has given thorough consideration to new development opportunity (economic development included), land use requirements, related traffic, transport and supporting infrastructure facilities, general environment evaluation and proposals/comments submitted by Members/co-opted Members of the LanDAC and its subcommittees and the general public according to the LanDAC agreed strategic development positioning, planning vision, direction, guiding principles and conservation plans and measures for Lantau. With reference to the work plan of the PC SC, this is a milestone and one of the phased achievements.
- 5. The LanDAC is requested to note the work progress of the PC SC, to endorse the Overall Spatial Planning and Conservation Concept for Lantau and to agree the Overall Spatial Planning and Conservation Concept for Lantau being a suitable and as important component for incorporation into the overall planning, conservation, economic and social development strategy for Lantau development in future.

Planning Department
Lantau Development Advisory Committee
Secretariat of Planning and Conservation Subcommittee
September 2015

Lantau Development Advisory Committee

Overall Spatial Planning and Conservation Concepts for Lantau

1. Purpose

1.1 This paper aims at briefing Members on the Overall Spatial Planning and Conservation Concepts for Lantau (Planning and Conservation Concepts) together with the broad development timeframes of the associated major development/infrastructural projects as well as the broad estimations on the growth of population and employment opportunities. This paper also serves to seek Members' endorsement of the Planning and Conservation Concepts and agreement that it would become a major component of the future Overall Planning, Conservation, Economic and Social Development Strategy for Lantau (Development Strategy for Lantau).

2. Background

- 2.1 With reference to the baseline information, development opportunities and constraints analysis of Lantau previously reported to the Planning and Conservation Subcommittee (PCSC) and the strategic positioning, planning visions and directions etc. agreed upon by the Lantau Development Advisory Committee (LanDAC), together with the consideration of the planning background of Lantau, its latest developments and the overall strategic planning of Hong Kong, and the views from LanDAC members, its subcommittees and the public, the Planning Department (PlanD) has proposed the subject Planning and Conservation Concepts (the study flow is at Plan 1). The Planning and Conservation Concepts were endorsed and agreed by the joint meeting of the PCSC and Economic and Social Development Subcommittee on 10.9.2015. In response to the suggestions and comments of the subcommittees, PlanD has added supplementary information to the Planning and Conservation Concepts, including the broad development timeframe of the major development projects and strategic transport infrastructures, as well as broad estimations on the growth of population and employment opportunities. The development potentials and considerations of Lantau and its overall strategic positioning, planning visions, directions and planning principles are summarised at Annexes 1 and 2.
- 2.2 The Planning and Conservation Concepts have considered the preliminary findings on the overall economic development of Lantau and the positioning of its four major commercial development areas from the on-going "Consolidated Economic Development Strategy for Lantau and Preliminary Market Positioning Study for Commercial Land Uses in Major Developments of Lantau" (Lantau Economic Development Strategy Study). Besides, the Planning and Conservation Concepts have taken into consideration the four planning directions agreed by Members. Having regard to the future population and employment distribution of Lantau as well

as the various major development projects, the Planning and Conservation Concepts have suggested a set of corresponding strategic transportation networks, proposing to connect Lantau with other parts of Hong Kong via rail, road and water transport, so as to enhance the internal and external connections of Lantau. The proposals would also help complement the overall development and transportation network of the whole territory.

2.3 In terms of conservation, recreation and tourism aspects, the Planning and Conservation Concepts have proposed to strengthen the conservation of sites with natural and landscape values. Having considered the relevant planning principles, such as optimising the natural and cultural tourism assets of Lantau, the Planning and Conservation Concepts have proposed to link up the three major regions, and introduce suitable themes and scales of recreation and green tourism elements, with a view to promoting ecological, cultural tourism and education under the context of conservation.

3. Economic Development Concepts

- 3.1 With the heightening of Lantau's strategic position as an international and regional gateway, several large pieces of land on Lantau have considerable potential for strategic economic use. To optimise precious land resources and avoid undesirable competition due to duplication of commercial uses of the various large-scale developments, the Lantau Economic Development Strategy Study has proposed the preliminary market positioning of the four major commercial developments (including the Hong Kong Zhuhai Macao Bridge (HZMB) Hong Kong Boundary Crossing Facilities (HKBCF) Island Topside Development, Tung Chung New Town Extension (TCNTE), Siu Ho Wan reclamation and Sunny Bay reclamation), as well as a set of consolidated economic development strategy for Lantau.
- 3.2 The Lantau Economic Development Strategy Study has proposed the creation of synergy effects to further the overall development of Hong Kong. The proposed economic development direction is "to capitalize on the anticipated economic and tourism growth in the Pearl River Delta (PRD) Region and the increase in flows of international and regional visitors and goods in Lantau by building on existing strengths of Lantau, specifically its strategic infrastructure and tourism assets, and capturing the opportunities arising from airport expansion and new infrastructure, and the synergy and potential competition with destinations in HK and the Region faced by Lantau". The economic strategy has recommended the following three economic development concepts (Plan 2):
 - A New Platform for the Pillars: To develop Lantau as a major economic hub to support Hong Kong's four pillar industries and provide substantial employment opportunities for Lantau and the nearby areas. Taking advantage of the development of the Pearl River Delta (PRD) Region and the opportunities from the new strategic transport infrastructure, to develop sizeable high-quality office clusters, comprehensive tourism/business supporting services and to connect with major transportation, which could facilitate Lantau to become a major strategic platform for the pillar industries.

- A Thriving Community: To develop Lantau into a desirable place for living, working and leisure for the existing and future population, thus lessen the need for cross-district commute. To create job opportunities in line with the population structure/skills as well as to promote the local economy and to support start-ups (such as co-working space) etc.
- A Bridge to Tomorrow: To develop Lantau as a platform to showcase the innovations of Hong Kong and the world, and to heighten Lantau as a smart island/innovative hub. New urban developments could also become a testbed for various new smart city technologies and concepts.

4. **Spatial Planning Concepts**

- 4.1 With reference to the refined four major planning directions, principles and recommended economic development concepts, the overall spatial planning concepts for Lantau are as follows (**Plan 3**):
 - (I) **North Lantau Corridor** should focus on strategic economic and housing development;
 - (II) Northeast Lantau should be developed for leisure, entertainment and tourism;
 - (III) East Lantau Metropolis (ELM) as a long-term strategic growth area;
 - (IV) Search for other suitable development spaces in the remaining areas and to **optimise Government land**, such as the consolidation of correctional facilities and investigate the development of cavern and underground space;
 - (V) Overall strategic **transport infrastructure** and provision of other **infrastructure** to complement the overall development of Lantau; and
 - (VI) Development of leisure/recreation, cultural and green tourism under the premise of furthering ecological and cultural conservation for **the majority** area of Lantau.

(I) North Lantau Corridor for Strategic Economic and Housing Development

4.2 The North Lantau Corridor commends an advantageous geographical location due to its proximity to the Hong Kong International Airport (HKIA) and other major infrastructures, including the North Lantau Highway, Airport Express and Tung Chung Line, and also the planned Three Runway System (3RS) of HKIA, as well as the on-going construction of the HZMB and Tuen Mun – Chek Lap Kok Link (TM-CLKL). It is suggested to capitalise on the advantage of being close to transport infrastructure by concentrating economic and housing development at the North Lantau Corridor. By doing so, critical mass can be generated to promote agglomeration economy and accelerate the overall economic development of Hong Kong. The major projects include the planned 3RS of HKIA, North Commercial District (NCD) of the Airport Island, topside development at HKBCF Island of HZMB, TCNTE and development of Siu Ho Wan.

(1) Three-Runway System of HKIA

4.3 In order to consolidate the overall competitiveness of Hong Kong and its role as a regional aviation hub, the Airport Authority Hong Kong (AAHK) is actively promoting the swift implementation of the 3RS to complement Hong Kong's long

term economic and development needs. The planned 3RS would require the reclamation of 650 hectares of land to the north of Airport Island for construction of the third runway, a new passenger terminal and apron area. The project also involves the reconstruction of Terminal 2 and other related infrastructure works. At present, the HKIA provides about 65,000 jobs. According to the estimate of the AAHK, upon the commissioning of the 3RS, the number of direct and indirect/induced jobs created will increase to 123,000 and 165,000 respectively by 2030.

(2) AsiaWorld-Expo

4.4 Opened in December 2005, the AsiaWorld-Expo (AWE) is located to the north of the NCD, occupying an area of about 12.7 hectare with a gross floor area (GFA) of about 112,000 sq.m. It has multi-functional halls with the capacity to hold conventions, exhibitions and various entertainment events for over ten thousand participants. The land adjacent to AWE could be considered for the future extension of the AWE, which could further provide sizeable convention and exhibition venues for Hong Kong.

(3) North Commercial District

4.5 Taking into account the 3RS and the planning of Lantau, the AAHK has proposed to develop the 10-hectare NCD in phases for retail and hotel uses.

(4) Topside Development at HKBCF Island of HZMB

- The artificial island at HKBCF of HZMB has an area of about 150 hectares¹, with potential for developing bridgehead economy. The economic concepts of "A New Platform for the Pillar" and "A Bridge to Tomorrow" are applicable. In view of the shortage of logistics sites in Hong Kong and leveraging the geographic advantage of the HZMB, logistics support uses may also be considered. The on-going "Planning, Engineering and Architectural Study for Topside Development at HKBCF Island of HZMB" (Topside Development at HKBCF Island Study) will confirm the feasibility, optimal development extent and the scale of topside and underground commercial uses. The aforementioned study will also recommend the overall development concepts therein.
- 4.7 The Topside Development at HKBCF Island Study has initially proposed the development theme of "the World Converging", i.e. the convergence of people, creativity and logistics at the HKBCF to facilitate exchange, innovation and promotion. The three proposed development elements include: (1) Experiencing Hong Kong and the World: To bring the World into Hong Kong and also to showcase Hong Kong to the World; to inspire creativity and exchange of ideas. This include promotion/event spaces, retail, dining, leisure, entertainment and multi-functional space/gallery, targeting both internationally renowned businesses and local start-ups. (2) Creating a "Economic Development Springboard": To provide smart office districts to attract Mainland firms wishing to expand abroad as well as global and local firms hoping to venture into Mainland and the Asia-Pacific region. To provide business hotels with convention/multi-purpose facilities so as to increase the supply of hotels in Lantau and strengthen the position of Hong Kong in the global Meeting, Incentive Travel, Convention and Exhibition (MICE) industry. (3) Logistics Support: Taking advantage of the proximity to the airport and cross-boundary strategic road connections, to focus on the development of modern and high-value-added logistics

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The artificial island at HKBCF of HZMB has an area of about 150 hectares (including about 130 hectares for HKBCF and about 20 hectares for the TM-CLKL Southern Landfall).

services for specific markets. It could provide integrated logistics services for valuable goods requiring special handling and high security (such as art work, antiques, wine, pharmaceuticals and electronics etc.), as well as e-commerce that require just-in-time delivery. According to preliminary estimation, the topside development at HKBCF Island could accommodate 300,000 sq.m. to 500,000 sq.m GFA. The actual developable land area is subject to further study and confirmation. Stage one public engagement of the study commenced in July 2015. The study is expected to be completed by early 2017.

(5) Tung Chung New Town Extension

- 4.8 According to the recommendations of the TCNTE Study, Tung Chung East will be used for comprehensive housing and commercial developments while Tung Chung West will be for low-density development in order to preserve its rural character. With an area of 235 hectare, the extension area will provide 49,000 housing units for a new population of about 140,000. It is expected that the future population of the whole Tung Chung New Town will reach 270,000. The overall extension project will provide over 800,000 sq.m. of commercial floor space for regional office hub, retail and hotel development which will provide about 40,000 jobs.
- As TCNTE is close to HKIA, it is suitable for developing the three economic development concepts namely "A New Platform for the Pillars", "A Thriving Community" and "A Bridge to Tomorrow". The metro core district of Tung Chung East could be developed as a smart commercial node with supplementary business hotels and other supporting facilities to facilitate agglomeration economy. The local needs could thus be catered for and the development of Lantau would also be reinforced. Co-working space for start-ups and offices of various scales could be developed, alongside retail, dining and entertainment facilities. It could also become a showcase for innovative and environmentally-friendly smart offices offering a smart urban living experience.
- 4.10 It is expected that the first population intake at TCNTE will be in 2023 at the earliest. Prior to 2023, other new residential developments will also be completed within Tung Chung New Town. The extension area is also suggested to be developed as a balanced and vibrant community. Having regard to public calls for more varieties of educational facilities in Tung Chung, the recommended outline development plan of the TCNTE Study has reserved about 4 hectares of land for tertiary institutes and other educational uses, which could offer vocational training and other educational facilities to support the pillar industries. The Government would also consider whether the land could be used for developing international school(s).

(6) Siu Ho Wan Reclamation and Nearby Development

- 4.11 According to the "2015 Policy Address", the Government will proactively investigate with MTRC the development potentials of the existing and future railway stations and railway-related land (such as Siu Ho Wan on Lantau etc.). Siu Wo Wan Depot has an area of about 30 hectares. MTRC is currently studying the feasibility, planning layout and impacts of topside residential development thereon.
- 4.12 The "Enhancing Land Supply Strategy Study" states that Siu Ho Wan is suitable for reclamation to develop strategic economic activities. In order to avoid affecting the habitats of the Chinese White Dolphins and the proposed Brothers Marine Park, the

scale of reclamation at Siu Ho Wan may need to be reduced to around 60 to 80 hectares. However, the exact potential reclamation area is subject to confirmation. The "Technical Study on Developments at Siu Ho Wan and the Associated Transport Infrastructures" (Siu Ho Wan Technical Study) had commenced in mid-2015. The subject study will assess the feasibility and extent of reclamation at Siu Ho Wan and the nearby development, as well as study the relevant transport infrastructure, so as to facilitate the detailed engineering and planning study at the next stage.

4.13 Siu Ho Wan is suitable for furthering the economic development concepts of "A Thriving Community" and "A New Platform for the Pillars". It is proposed to establish a high quality living-cum-knowledge zone, to develop training/educational facilities, including accommodation facilities to attract students from abroad, optimise the various developments in Lantau for site visits/practical training purpose and to support the related industries. The relevant training/educational facilities may include aviation/ logistics/ tertiary education/ executive training/ vocational training etc. Residential development and supporting local retail, dining and entertainment facilities etc. may also be provided in the area.

(II) Northeast Lantau for Leisure, Entertainment and Tourism Development

4.14 With Hong Kong Disneyland, Inspiration Lake and hotel facilities, Northeast Lantau is already an international tourism, leisure and entertainment centre. It is suggested to capitalise on the existing Sunny Bay Station and Hong Kong Disneyland, by carrying out reclamation at Sunny Bay and implement the phase one and two developments of Hong Kong Disneyland. This would assimilate the two developments into one. The overall development would include convention/multi-functional business hotels, themed retail, recreation, leisure, sports, catering, entertainment and tourism facilities. This could bring synergy effect with other tourist attractions of Lantau, and enhance Northeast Lantau as a converging point of leisure, entertainment and tourism to become the "Northeast Lantau Tourism Gateway".

(7) Sunny Bay Reclamation

- 4.15 Sunny Bay Station is currently along the Tung Chung Line and Disneyland Resort Line, and is in proximity to the Hong Kong Disneyland. Considering the locational advantages of Sunny Bay, it has potential to develop as a regional entertainment and commercial node via reclamation (of about 60-100 hectares). The Government will commence an engineering and planning study to confirm the technical feasibility and optimal scope of reclamation and development at Sunny Bay.
- 4.16 The economic development concepts of "A New Platform for the Pillars" and "A Bridge to Tomorrow" are suitable for Sunny Bay. It could be developed as a tourism gateway of Northeast Lantau by establishing new tourist attractions, themed hotels, recreation, leisure, sports, dining, retail and entertainment facilities. It is also proposed to utilise the waterfront location of Sunny Bay and Yan O Wan for various leisure/recreation activities, tourist attractions, marina and related supporting facilities to attract tourists. Attractive themed hotels (with small scale convention/multi-purpose facilities) could also be developed to complement the nearby Hong Kong Disneyland and other attractions in Lantau, so as to attract tourists to stay. Besides, tourism-related training facilities (such as teaching hotels or cookery training centres/educational facilities) could also be provided. Sunny Bay is also suitable for developing tourist attractions related to innovative and new technological ideas for

experiencing the future (such as experience-based innovative technology centre(s) to allow visitors to experience the latest high-tech products) together with themed retail, dining and entertainment faculties.

(8) The Expansion of Hong Kong Disneyland

- 4.17 The HK Disneyland has two phases of development. Expansion will take place in the remaining area of the first phase over the next few years. The two existing hotels of Hong Kong Disneyland currently provide about 1,000 rooms, while the third hotel, now under construction and expected to be completed by 2017, will provide an additional 750 rooms². According to the 2015-16 Budget, the Government will discuss with Walt Disney Co. on the plan to implement the second phase development. It is expected that the second phase will occupy 60 hectares of land with entertainment, hotel and retail facilities.
- 4.18 Apart from the Disneyland Resort Line, there are pier facilities at Hong Kong Disneyland. It is suggested to strengthen the water transport services to connect Hong Kong Disneyland with the attractions of the urban area and the cruise terminal, as well as Sunny Bay, South Lantau and the surrounding islands. This could promote tourism for the outlying islands, as well as provide an alternative form of travel experience.

(III) Setting-up Core Business District in ELM for Strategic Development

(9) East Lantau Metropolis

- It is suggested to optimise the locational advantages of the central waters for the 4.19 development of the ELM. The core business district should be planned as long-term strategic growth area to complement the demands of the increases in overall population and of the economy of Hong Kong, and promote a more balanced territorial development pattern. According to the initial concepts, the reclamation could take place in the waters around Kau Yi Chau and Hei Ling Chau Typhoon Shelter, together with the uplifting of the development potential of Mui Wo to create a smart, innovative, liveable, diversified and environmentally-friendly ELM. Through reclamation, large pieces of land could be created for comprehensive and innovative town planning, design, engineering and construction. The limitations of reclamation are relatively fewer than urban renewal and district rezoning. As the ELM concept would involve large-scale reclamation and infrastructural works requiring enormous investment, the development extent and feasibility etc. are still subject to confirmation. Government is preparing to commission a strategic study to investigate the feasibility of artificial islands in the central waters. With reference to the scale of the existing new towns, the population of the ELM will be between 400,000 to 700,000 so as to increase cost efficiency, promote amalgamation effect of population and economic activities, and promote a diversified and vibrant new development area (NDA).
- 4.20 As the waters around Kau Yi Chau are only about 4 km away from Hong Kong Island, the ELM is suggested to be positioned as a smart NDA with a core business district as the third Central Business District (CBD3) of Hong Kong. Coupled with strategic transport infrastructure, the ELM could provide large numbers of jobs and promote a more balanced development pattern for Hong Kong as a whole. However, the subject waters are in proximity to busy fairways and port facilities, such as anchorages.

Source: http://www.legco.gov.hk/yr14-15/english/panels/edev/papers/edev20150216cb4-480-5-e.pdf

There are also restrictions imposed by the Deed of Restrictive Covenant of the Hong Kong Disneyland. The proposed development would thus need to be balanced against other considerations.

- 4.21 Mui Wo is currently a rural township with considerable community facilities. Relevant Government departments have carried out a number of improvement projects in the district. It is suggested to optimise the use of abandoned agricultural land, fish ponds and under-utilised land. Due regard should be given to conservation areas with high ecological and cultural value and existing towns during the planning process, and to promote urban and rural integration. At the same time, the existing recreational tourism elements of Mui Wo could be optimised, such as beaches, Silver Mine Bay Waterfall and high-quality agricultural land etc., with a view to enhancing the potential for tourism development.
- 4.22 As for Hei Ling Chau, in order to preserve precious ecology and rare species of Bogadek's Burrowing Lizard³, large-scale development is not recommended on the island. Instead, modest reclamation could be considered in the existing under-utilised typhoon shelter and its surrounding waters for near-water leisure living to enrich the choice of accommodation in Hong Kong. The district is also suitable for providing local commercial and community facilities. However, the existing facilities on the island (including correctional facilities) may need to be relocated to other areas to facilitate the overall development of the ELM.

(IV) Other Development Spaces

(10) Consolidation and Relocation of Correctional Facilities on Lantau

4.23 There are currently ten correctional facilities⁴ located on Government land in Lantau and Hei Ling Chau. Apart from relocating the correctional facilities at Hei Ling Chau to facilitate the ELM development, based on the planning principle to optimise the use of Government land, it is suggested to investigate a preliminary concept to consider the consolidation and relocation of correctional facilities on Lantau for releasing part of the land area for residential, recreational or other uses. This could lessen the pressure for developing new land. Prior to taking forward these preliminary planning ideas, the Government would need to first carry out comprehensive technical and cost-benefit studies to assess their feasibility.

(11) Development of Cavern and Underground Spaces (Plan 4)

4.24 Lantau is mostly mountainous with steep slopes while some areas are located within country parks. The development of cavern and underground spaces could be considered. According to the findings of the Long-term Strategy for Cavern Development, the foothills of Siu Ho Wan and the area near Mui Wo have potential for cavern development. Under the context of preserving country parks, it is possible to study the relocation of some Government facilities, such as refuse transfer station, water treatment works and sewage treatment plants. Not only would this address the development needs of the community, it could also increase usable at-grade space.

Source: http://www.biosch.hku.hk/ecology/hkreptiles/lizard/

⁴ The ten correctional facilities include: Shek Pik Prison, Lai Chi Rehabilitation Centre, and Sha Tsui Correctional Institution in Shek Pik; Tong Fuk Correctional Institution; Chi Ma Wan Correctional Institution and Shi Sun Correctional Institution in Chi Ma Wan; and Hei Ling Chau Correctional Institution, Hei Ling Chau Addiction Treatment Centre, Lai Sun Correctional Institution and Nei Kwu Correctional Institution in Hei Ling Chau.

On the other hand, with the implementation of a number of strategic development projects on Lantau, the demand for various infrastructure will increase. The provision of new infrastructure facilities, such as sewage, drainage and waste disposal systems etc., within caverns or underground spaces could also be investigated.

(V) Overall Strategic Transport Infrastructure

- 4.25 The current transport connection between Lantau and the urban areas is primarily reliant on the North Lantau Highway and Tsing Ma Bridge. The railway network includes the Tung Chung Line, Airport Express and Disneyland Resort Line. The intra-district road network is mainly reliant on Tung Chung Road connecting northern and southern Lantau. However, Tung Chung Road (southern part from Shek Mun Kap Road) and all the roads of South Lantau are closed roads.
- 4.26 From a macro viewpoint, Shenzhen, the Northwest New Territories (NWNT), Lantau and the airport are the future major economic growth zone. It is therefore necessary to enhance the connection between them, in order to achieve greater synergy. Besides, Lantau and NWNT are the future important nodes for overall population growth and economic development. Tuen Mun New Town and the future Hung Shui Kiu NDA and Yuen Long South of the NWNT will provide a large workforce. Meanwhile, the 3RS and Lantau (especially along the northern shores) will accommodate many strategic economic development projects, which would provide significant employment opportunities. The provision of employment opportunities for local population growth will lessen the need for cross-district commuting. It is expected that the economic development of Lantau will attract workers from outside Lantau (especially NWNT) to travel in and out of Lantau.
- 4.27 The HZMB, TM-CLKL and the planned 3RS will further strengthen the role of Lantau as a transportation node. The economic and tourism activities of Lantau will induce the flow of people and goods, which will put pressure on the existing transport network of Lantau.
- 4.28 Whether the existing North Lantau Highway and Tsing Ma Bridge are sufficient to cope with the future increasing traffic flow would depend on the overall planning and development density of Lantau. To complement the various strategic developments of Lantau, as well as the overall development needs of Hong Kong, there is a need to form a comprehensive transportation network for Lantau and to provide strategic transport infrastructure, including railway, road system, and supported by appropriate water transport. The initial concept is shown on **Plan 5.** Studies on the demand and preliminary feasibility of the related transport infrastructure should be investigated in tandem with the relevant development proposals, with a view to complement the overall Planning and Conservation Concepts.

(12) Railway System

4.29 Based on the scale and development positioning of the northern shores of Lantau and the ELM, it is suggested to study the use of railway as the backbone to connect the major growth areas of Lantau with the urban areas and the New Territories (NT). The overall railway network will be enhanced with the formation of a new railway corridor linking NWNT – Lantau – Metro Area:

- ELM Railway System: The planned population of ELM could reach several hundred thousand which is equivalent to the scale of a new town. The proposed CBD3 will also provide considerable amount of employment opportunities. It is crucial to connect the ELM with the existing urban areas, including the traditional CBD, by means of mass transit system. It is suggested to study the use of railway as the backbone transport system, connecting the ELM internally as well as externally with Hong Kong Island West, Kowloon West and Lantau North, and integrate it with the existing and future railway system.
- Connecting Lantau with the Railway System of NWNT: In order to provide a more efficient and convenient connection with the NWNT to facilitate the workforce of NWNT to work in Lantau, besides the construction of the TM-CLKL, it is recommended to consider a railway connection between the HKBCF Island of HZMB with Tuen Mun. This potential railway linkage could strengthen the connectivity of NWNT Lantau Metro Area.

4.30 Other proposed railway studies include:

- Tung Chung West Extension (including Tung Chung West Station) and Tung Chung East Station: The Tung Chung West Extension and Tung Chung West Station were proposed under the "Railway Development Strategy 2014". The "Planning and Engineering Study on the Remaining Development in Tung Chung Feasibility Study", jointly commissioned by the PlanD and the Civil Engineering and Development Department, has also recommended the construction of a Tung Chung East Station to cope with the planning and development of Tung Chung East. Should the need for this railway station be confirmed in the future, detailed investigations will be further conducted to ascertain its feasibility.
- HKBCF Island Railway System: In view of the forthcoming large-scale commercial activities at the HKBCF Island and the future development of the NCD and AWE at Airport Island, it is suggested to further investigate possible railway connections between the HKBCF Island and North Lantau, as well as between North Lantau and the future ELM. The connection between the HKBCF Island and the Airport Island is currently being studied⁵.
- To investigate an additional railway station at Siu Ho Wan to cope with the reclamation and topside development of Siu Ho Wan Depot and the nearby areas.

(13) Road System

4.31 It is suggested to connect the northern shores of Lantau, the ELM, the urban areas of Hong Kong and the NT through strategic road network to form a curve-shaped road corridor linking NWNT – Lantau – Metro Area. This would further connect with Shenzhen, the PRD region and even western Guangdong through the HZMB, TM-CLKL, Kong Sham Western Highway and Shenzhen Bay Bridge, thus help facilitate the flow of people, goods and economic activities:

The connection options between the HKBCF Island and the Airport Island include high efficiency automated people mover systems. The final option is subject to further investigation.

- Road System in ELM: It is suggested to connect the ELM eastward with Hong Kong Island West, and northward with northeast Lantau; new road connections with NWNT could also be further studied. In this way, a connection between NWNT and Hong Kong Island West via the ELM could be created in the future. Besides, the ELM could be connected with the northern shores of Lantau, such as Siu Ho Wan, via Mui Wo, and further on to TM-CLKL to connect with other destinations.
- 4.32 Besides, with the completion of the various development areas in North Lantau, there is a need to investigate the construction of Road P1 to strengthen the trunk road along the northern shore of Lantau, connecting the major development projects of Tung Chung East, Siu Ho Wan and Sunny Bay. This could promote the development of North Lantau and the synergy effect.

(14) Water Transport

- 4.33 There are currently six regular ferry services connecting Lantau with Tuen Mun, Central and the surrounding outlying islands⁶. Besides, the AAHK-owned and managed Skypier at the airport restricted zone of HKIA provides convenient air and sea transport clippers service between Hong Kong and the PRD region for transit passengers. The connection between northern and southern Lantau is mainly reliant on Tung Chung Road; however, Tung Chung Road (southern part from Shek Mun Kap Road) and all roads of South Lantau are closed roads (para. 4.25 refers). It is therefore suggested to strengthen the water transport of Lantau. On one hand, water transport could supplement road transport by diverting heavy traffic during holidays, especially for South Lantau. On the other hand, water transport could provide an alternative leisure transport choice, which is beneficial in promoting tourism development in Lantau. The feasibility, scale of operation and scope of water transport are subject to further studies. The initial ideas include the following:
 - Establishment of pier facilities at Sunny Bay: In order to match with the positioning of Sunny Bay as Northeast Lantau Tourism Gateway, it is suggested to provide leisurely water transport and to add pier facilities subject to further studies with marinas in the future reclaimed area of Sunny Bay/Yan O Wan. A network could be formed with the proposed marina and pier facilities of TCNTE, pier facilities of Hong Kong Disneyland, as well as the pier facilities serving Lantau and other outlying islands.
 - Connection of the ELM with other outlying islands: To investigate the
 development of piers at other areas, such as the ELM, Tong Fuk, Shek Pik and
 Fan Lau of South Lantau, and the proposed spa resort of Soko Islands, to
 strengthen linkages of these areas and also promote alternative tourist sightseeing
 activities.

The six regular ferry services include: (1) Inter-islands ferry (Peng Chau - Mui Wo - Chi Ma Wan - Cheung Chau); (2) Mui Wo - Central; (3) Tai O - Sha Lo Wan - Tung Chung - Tuen Mun; (4) Discovery Bay - Central; (5) Discovery Bay - Mui Wo; (6) Discovery Bay - Peng Chau (Kaito service). Two ferry piers: Tung Chung Development Pier and Mui Wo Ferry Pier. Seven public piers: Sha Lo Wan Pier, Tai O Public Pier, Tung Chung Public Pier, Tai Shui Hang Pier, Chi Ma Wan Pier, Pak Mong Pier, and Tung Chung Development Pier [for public use]. There are also other pier facilities along the

⁽http://www.devb.gov.hk/filemanager/en/content_925/TT_SC_Paper_08_2014_(Eng).pdf)

4.34 Apart from strategic transport infrastructure, the internal road arrangement and transport facilities of Lantau would also need to be improved, such as to review the closed road and road licensing arrangement, increase parking spaces within the area, road improvement works, and to explore whether more Lantau taxi licenses should be issued subject to demand etc. The aforementioned proposals on internal transport services and network improvements of Lantau have been considered in the development of the Social Development Strategy. The details could be referred to ESD SC Paper No. 07/2015.

(VI) The Majority of Areas in Lantau for Conservation, Leisure, Cultural and Green Tourism

4.35 According to the agreed development directions of LanDAC, the majority of areas of Lantau should be for conservation, leisure, culture and green tourism. In order to strike a balance between the needs for conservation and development, it is suggested to follow two major directions for further examination: (1) enhance conservation and (2) better utilise resources. With the prerequisite of conservation, it is suggested having optimal amount of recreation and green tourism elements, promoting ecological and cultural tourism and education, thereby enhancing Lantau's role as a hotspot of diversified recreation and tourism. The aforementioned arrangement to relax the closed roads would also help strike a balance between conservation and promotion of recreation and green tourism. The following recommendations are proposed for the majority areas of Lantau to balance the needs of development and conservation, in order to achieve overall sustainable development for Lantau.

(15) Better Utilisation of Country Park Areas

- 4.36 About 70% of land in Lantau is within country parks where the ecological habitat and topography are of high ecological, conservation and landscape values. Besides, the 2015 Policy Address stated that the Government will continue to use the existing principles and criteria to assess the suitability to include "the enclaves" into the corresponding country parks. A new management approach would be adopted to strengthen the protection of areas with relatively high natural landscape or recreational values.
- 4.37 Large-scale development should be avoided in country parks and sites with conservation purposes in Lantau. On the other hand, with the prerequisite of enhancing conservation and facilitating better enjoyment of resources by the public, it is suggested to increase the attractiveness of country parks for green tourism, recreation and educational purposes, such as to improve and increase country trails, park facilities and camp sites as well as to use information technology (e.g. QR code) to enhance the recreation and educational values of the country parks in Lantau. Interpretation facilities could be established within country parks to strengthen the public's understanding on the native tree species of Lantau.

(16) Network of the Existing and Proposed Marine Parks

4.38 The Government is in the process of designating various marine parks for water areas with high ecological value in Lantau to protect the nearby marine environment in the long run, including the proposed Southwest Lantau Marine Park and Soko Islands Marine Park, where the consultation exercises are currently in progress. Besides, the

establishment of marine parks for compensating the development of an integrated waste management facilities is being studied. The environmental impact assessment (EIA) report for the 3RS of HKIA also proposes the establishment of marine park to connect Sha Chau, Lung Kwu Chau Marine Park and the proposed Brothers Marine Park. By connecting the existing and proposed marine parks in the northern and southern waters of Lantau to formulate a marine parks network, the marine ecology could be enhanced. At the same time, it is suggested to study the development of appropriate water activities and uses for educational purpose.

(17) Heritage Conservation

4.39 The linkage of sites and attractions of heritage value should be strengthened so as to attract visitors, for instance, by providing heritage themed country trails, or the establishment of specific routes and amenities for visitors. Villages with unique rural characters should be integrated. This would allow the conservation of traditional rural characters while promoting cultural tourism and education.

(18) Landscape Conservation

4.40 Areas with local characteristics and special landscape characters, such as Tai O Fishing Village and Pui O/Cheung Sha, have to be preserved. New developments and urban design should not cause damage to the existing landscape setting, and shall take full account of the unique characteristics of individual areas, and provide view corridor at distinctive locations, such that these sites will not be blocked by new development. Some major projects, such as the Tian Tan Buddha Statue, airport and Ngong Ping Cable Car and the construction of the HZMB, are landmarks of Lantau and integral parts of its landscape.

Broad Development Timeframe of the Major Projects

- A number of major developments and supporting transport projects are proposed in the aforementioned Concepts. However, the projects would be studied and implemented in phases having regard to their priorities, complexity in construction and the allocation of Government resources,. Besides, the implementation timing for some of the projects would depend on the plans of the responsible organisations. According to the existing preliminary information, the projects could be broadly categorised into three timeframes, namely short-, medium- and long-term (**Plan 6**). Short-term projects include the HZMB and the TM-CLKL which are under construction, as well as projects under on-going studies, such as the NCD on Airport Island and the topside development on the HKBCF Island.
- 4.42 Medium-term projects consist of a number of relatively large-scale projects under on-going studies, including the TCNTE, reclamation and surrounding development at Siu Ho Wan Depot and surrounding reclamation and development, Sunny Bay reclamation, as well as the 3RS which is currently at the plan amendment stage etc. Depending on the final implementation schedule of the aforementioned projects, we will also investigate how transport projects could complement these projects, such as the Road P1 currently under study, the proposed Tung Chung Line West Extension (including Tung Chung West Station) as recommended under the "Railway Development Strategy 2014", and the building of new railway station(s) to dovetail with other major developments on North Lantau etc.
- 4.43 Given the large-scale reclamation and transport infrastructure network pertinent to the

ELM, it is anticipated that this long-term project, from investigation, phased construction to full completion, would extend beyond 2030.

Growth in Population and Employment Opportunities

The current population of Lantau is about 0.11 million, which is mainly concentrated 4.44 in Tung Chung New Town, Discovery Bay and Mui Wo. With the completion of the planned development projects of the TCNTE from 2023 onwards, the planned population of Lantau would increase to about 0.3 million. The residential components of the Concepts will mainly come from the topside development of Siu Ho Wan Depot and the ELM at the central waters. According to our initial estimation, should all the major development projects be implemented after further investigation, and if the ELM would adopt the relatively aggressive option of a target population of 0.4 to 0.7 million, it is anticipated that the population of Lantau could reach approximately one million in the long term. This estimation is based on the scale of the existing new towns, with due consideration given to the amount of population and jobs needed to create economy of scale and agglomeration effect. That said, the actual users, development scales, feasibility and implementation arrangement of the various proposed development projects have yet to be investigated. The realization of the additional population would also hinge on appropriate levels of supporting transportation and infrastructural facilities.

5. Conservation, Recreation and Tourism Proposals

Taking into account the overall ecological, historical and cultural resources of Lantau (**Plan 7** and **Plan 8**), it is recommended to connect the three regions (**Plan 9**), and add appropriate elements of recreation and green tourism in each region to promote ecological, cultural tourism and education. Besides, the conservation concept also proposes the introduction of a series of green initiatives, with the aspiration to promote green and environmental ideas and to make Lantau a liveable and desirable place.

(I) Northwest Lantau Cultural and Nature Trail (**Plan 10**)

Northwest Lantau, from Tai O to the Tung Chung area, possesses rich cultural and natural landscape. The area is currently connected by the Tung O Ancient Trail. To further highlight its value, it is recommended to link the places with cultural, historic and nature conservation values between Tai O and Tung Chung through the "point-line-plane" approach. Four scenic areas can be established according to its characteristics, including (a) Tai O – tour for historic fishing village; (b) Sham Wat – tour for geological features; (c) Sha Lo Wan – tour for ancient trees and village; and (d) Tung Chung – tour for urban-rural integration. Different ways of travel will be explored and appropriate tourist facilities will be enhanced, so as to fully demonstrate the cultural and natural atmosphere of northwest Lantau. Tung Chung New Town Centre is a transportation hub to various places in Lantau and the airport, as well as a place where tourists congregate. There are many places of cultural, historic and ecological values. Two areas of attraction are initially proposed:

Tung Chung Nature and Historical Walk

Using Tung Chung Station as a starting point, the Tung Chung Battery and Tang Dynasty limekiln, Ma Wan Chung Village, Hau Wong Temple, Tung Chung River and Tung Chung Fort could be linked up and the area be established as the "Tung Chung Nature and Historical Walk". Systematic management and publicity will be adopted, additional tourist facilities will be established where appropriate and repair works of various attractions will also be carried out.

Riverside-cum-Biodiversity Park

Tung Chung River has a good and diverse natural habitat. It is an important breeding and foraging ground for fishes and has the second highest number of freshwater fish species in Hong Kong. It is initially suggested to set up a Riverside-cum-Biodiversity Park in the estuary of Tung Chung River to raise public awareness on biodiversity, topography and estuary ecology of Lantau, so as to achieve the aim of enhancing conservation.

(II) Luk Wu Keung Shan Religious Conservation Zone

5.5 The area of Luk Wu and Keung Shan is the place of early development of Buddhism in Hong Kong. In response to its long history of religious culture, and the existing hiking trail linking to Tai O, Ngong Ping and other places, it is suggested to develop Luk Wu and Keung Shan as a religious conservation zone to manifest the cultural value of Zen forest. The proposed conservation area would ensure no disturbance to the existing highly natural, religious and landscape value, and preservation of the local characteristics of the religious communities, and the peaceful and calm religious atmosphere.

(III) South Lantau for Eco-conservation, Recreation and Green Tourism

5.6 The area from Pui O to Fan Lau has natural coastline and beautiful beaches, rich coastal ecological resources with pleasant landscape. It is initially proposed to position South Lantau as "eco-conservation, recreation and green tourism belt" by linking up the recreation and tourism spots along the coastline of South Lantau and promoting South Lantau as a destination for recreation and green tourism.

(IV) Develop Diversified Tourist Accommodation Facilities

5.7 To complement the theme of conservation, recreation and green tourism, it is suggested to provide diversified and distinctive tourist accommodation facilities, including spa and resort facilities, eco-lodge and holiday camps. The "Preliminary Feasibility Study of Cable Car System from Ngong Ping to Tai O, and Spa and Resort Development at Cheung Sha and Soko Islands" (Cable Car and Spa and Resort Development Study) would suggest the development scale and relevant facilities of the spa and resorts development in Cheung Sha and Soko Islands. Besides, it is also suggested to investigate the development of eco-lodge or holiday camps on Government land near the beaches along Tai Long and Pui O. A wide range of recreation and tourism facilities would be provided so as to encourage students, families, visitors and the general public to travel or organise ecological study tours to South Lantau to experience the nature.

(V) Develop Leisure and Recreational Activities

- The majority of Lantau is mainly rural in character. There are currently a number of active or fallow farmland in Yi O, Mui Wo and Tai Long etc. It is suggested to cooperate with the farming organisations to develop hobby farming, so that agriculture and urban development could coexist. Besides, the natural beaches in South Lantau have great potential to further develop water activities and festive events, so as to enrich the recreation element of Lantau. With the development of leisure and recreational activities, it is suggested to improve the cycle tracks/mountain bike network of Lantau in phases. This can encourage citizens and tourists to travel by bicycles, so as to enrich their experience of recreation and tourism. In view of the increasing number of recreational activities in Lantau, tourist facilities and tourist centre(s) could be developed in Tung Chung and South Lantau where appropriate, to provide information on transit and island hopping, and to serve as a gateway for tourists visiting Lantau.
- The PlanD has provided details of the aforementioned recreation and tourism proposals, including location and routes, to the consultancy teams of the "Lantau Island Recreation and Tourism Development Strategy Feasibility Study" (Recreation and Tourism Development Study) and the Cable Car and Spa and Resort Development Study for further study and consideration, in order to confirm the feasibility and broad implementation option of the proposals.

(VI) Green Initiatives

- 5.10 It is suggested to adopt green initiatives in all aspects of urban planning, urban design and infrastructure for Lantau, so as to achieve the aim of high efficiency, low carbon emission and sustainable living. The planning concept for Lantau will focus on "Green Design" for creating a sustainable living environment.
- 5.11 The idea of green initiatives may proceed in two directions, including resource management and development/planning of infrastructure development. In resource management, it is suggested to better utilise farmland or fallow land, and encourage hobby farming and city farming to allow the coexistence of agriculture and urban development. Regarding water resources, the use of effective drainage and wastewater reuse systems could be promoted to encourage rainwater collection and recycling effluent reuse. Energy efficiency could also be considered together with resource management. In waste management, centralised waste treatment could be considered to reduce carbon emissions and promote energy conversion, minimising waste disposal and the need for landfills.
- 5.12 On urban development and design aspect, it is recommended to encourage the promotion of green buildings and developing green communities. In terms of infrastructure facilities, it is proposed to form an environmentally-friendly transport network, including the promotion of low-emission/electric vehicles, improving cycling and pedestrian network, and concentrating population and activities within walking distance to public transport nodes. Blue-green development concepts could be incorporated for infrastructure facilities for promoting greening, biodiversity,

landscaping and near—water activities. The aforementioned proposals echo the economic development concept of "A Bridge to Tomorrow" and the idea of developing Lantau as a smart and innovative hub. The feasibility of district cooling systems should be explored so as to reduce power plant emissions of greenhouse gases in order to protect the environment. The introduction of Community Green Station eco-stations in the community can foster green living in the community.

6. <u>Improvement of Infrastructural Facilities</u>

- According to the preliminary assessments, it is necessary to strengthen the infrastructural facilities in order to keep in pace with the overall long term development of Lantau. Although studies for various development projects are being carried out, the Government should review the demand on the relevant infrastructural facilities as a whole. In line with the overall strategic development of Lantau, it is suggested to comprehensively review the demand on the infrastructural facilities with environmental design concept for promoting low-carbon lifestyle.
- 6.2 For some districts of Lantau which currently do not have public sewage collection facilities, public sewage collection system should be provided. Improvement works for the sewage system of the remaining areas should also be studied.
- Regarding drainage facilities, the policy agenda of the 2015 Policy Address suggests adding the concept of revitalising water bodies in nullahs and river channels, so as to effectively perform drainage with the targets of enhancing greenery, biodiversity, aesthetics and promoting near-water activities. All of these could create a sustainable drainage system and provide a better living environment. Environmentally-friendly design concept could also be adopted for the drainage system to match with the natural environment.
- On waste disposal facilities, the future economic activities and population growth of Lantau will induce large demand for waste disposal. New waste disposal facilities should adopt environmentally-friendly measures, and be compatible with the surrounding environment. Waste disposal facilities and other unpopular infrastructures, such as sewage treatment works and water pumping stations etc., could be consolidated to minimise their impact to communities. Besides, the potential to convert waste into energy should be studied, alongside other measures to encourage recycling.
- Regarding the existing water treatment works (such as those in Siu Ho Wan and Mui Wo), it is suggested to study the reduction of the chlorine storage capacity to release the sterilised land for other development purposes. The future location of new water treatment facilities should complement the overall development of Lantau. Besides, the feasibility of relocating water treatment facilities into cavern and further stabilising our water supply through seawater desalination could be explored.

7. <u>Environmental Considerations</u>

- 7.1 The impacts of reclamations at Sunny Bay and Siu Ho Wan on water quality, air quality, ecology and fisheries have been assessed at the strategic level in the completed "Cumulative Environmental Impact Assessment (EIA) Study for the Three Potential Near-shore Reclamation Sites in the Western Waters of HK". The study results revealed that the proposed reclamations would not pose insurmountable impacts on the environment, provided that the implementation timing of the various reclamation projects are carefully arranged and mitigation measures would be carried out, such as reducing the reclamation extent at Siu Ho Wan to avoid waters frequently used by the Chinese White Dolphins and using environmentally friendly construction methods.
- 7.2 In November 2014, the Director of Environmental Protection approved the EIA report of 3RS with 18 implementation requirements. The Environmental Permit (EP) for the 3RS project was also granted on the same day. The EIA report recommended the designation of a 2,400-hectare marine park which will be the largest of its kind in Hong Kong. AAHK will commence its work to fulfil the commitments of marine ecology mitigation and enhancement measures to achieve "a balance economic development and environmental conservation" in the implementation of the 3RS project. EIA is also being carried out for the proposed development, such as TCNTE study, to ensure that the proposed development should not have adverse impact on the surrounding environment.
- Besides, the Government has commissioned consultants to conduct a Strategic Environmental Evaluation (SEE) for the overall spatial planning concepts for Lantau, in order to evaluate the environmental acceptability and impacts of the whole land use concept. The consultant preliminarily suggested a variety of measures such as sufficient setback distance and use of electric cars to mitigate the possible impacts. At the same time, the conservation proposal in the overall planning and land use concepts for Lantau could bring positive impacts to ecological, landscape and cultural conservation of Lantau. It is expected that the SEE would be completed at the end of 2015. For the environmental impacts and mitigation proposal of individual projects, such as Sunny Bay and Siu Ho Wan reclamations and ELM, they will be analysed in detail in the planning and engineering and technical/strategic studies of individual projects.

8. Follow-up on the Views of Members and the Public

- 8.1 Since the setting up of LanDAC and its subcommittees, Members, co-opted Members and the public have submitted a considerable amount of suggestions/comments on development, land use planning, environmental and conservation aspects for Lantau. This include views collected during the on-going publicity activities convened by the Public Relation and Engagement Subcommittee. Comments that are in line with the strategic positioning, planning vision, development direction and guiding principles as agreed by LanDAC, and appropriate practical suggestions/views have been appropriately reflected and incorporated in the Planning and Conservation Concepts.
- 8.2 The details and feasibility of the appropriate recommendations will be considered and

followed-up by relevant subcommittees and/or the various major planning or topical studies, including the Lantau Economic Development Strategy Study, Recreation and Tourism Development Study, Cable Car and Spa and Resort Development Study, Topside Development at HKBCF Island Study, Siu Ho Wan Technical Study, Technical Study on Transport Infrastructure at Kennedy Town for Connecting to ELM, as well as the forthcoming Planning and Engineering Study for Sunny Bay Reclamation and the Strategic Study for Central Waters Artificial Island.

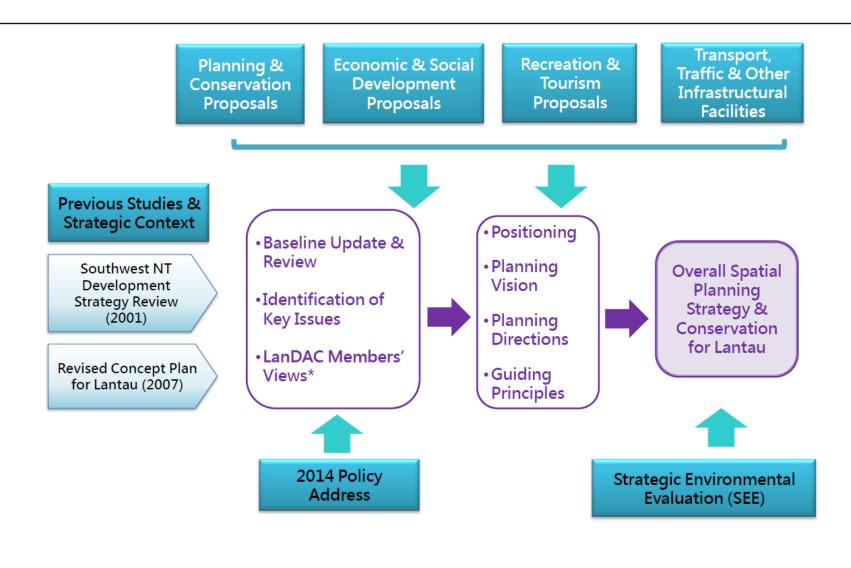
9. The Way Forward

9.1 This document primarily serves to consolidate the spatial planning and conservation concepts, as well as the related transportation, infrastructural facilities and environmental considerations of Lantau. Should the Planning and Conservation Concepts be approved by the Committee, based on the analysis of the broad environmental assessment, and taking into account the latest findings of relevant topical studies and suggestions of other subcommittees, PlanD will contribute to the formulation of the Development Strategy for Lantau in due course.

Annex 1: Development Potentials and Considerations of Lantau

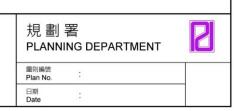
Annex 2: Strategic Positioning, Planning Vision and Directions and Planning Principles for Lantau

Planning Department September 2015

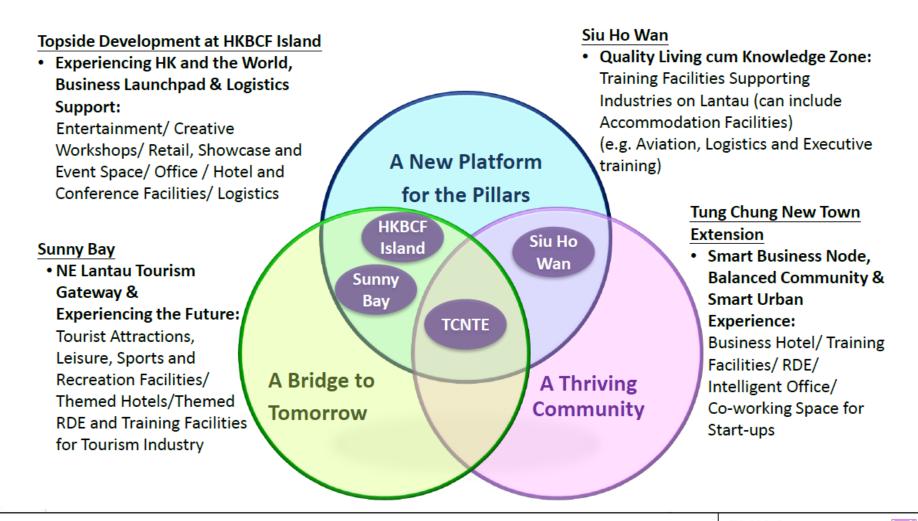


*Including Public Views collected by LanDAC Members





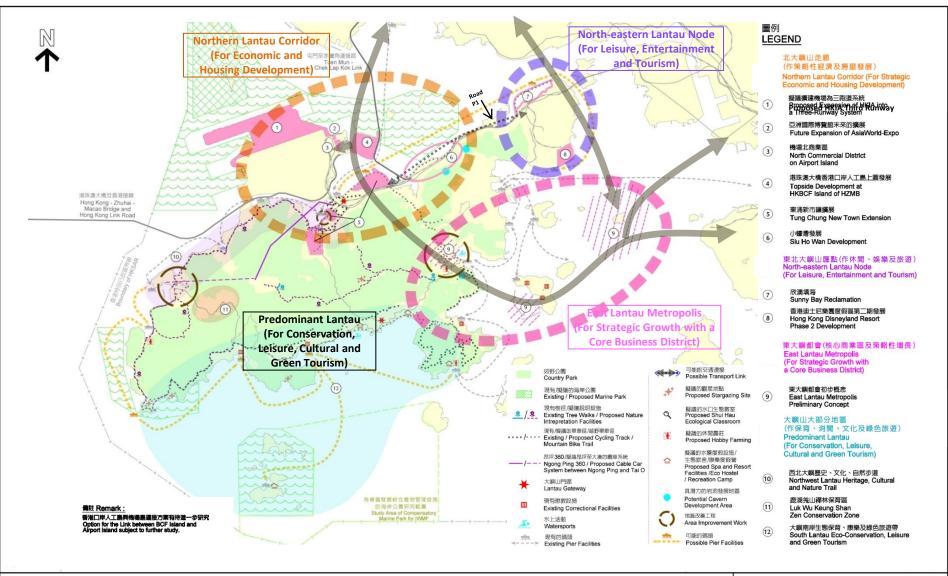
Economic Development Concepts



Plan 2: Consolidated Economic Development Strategy for Lantau

規劃署 PLANNING DEPARTMENT





Plan 3: Spatial Planning Concept for Lantau

規劃署 PLANNING DEPARTMENT

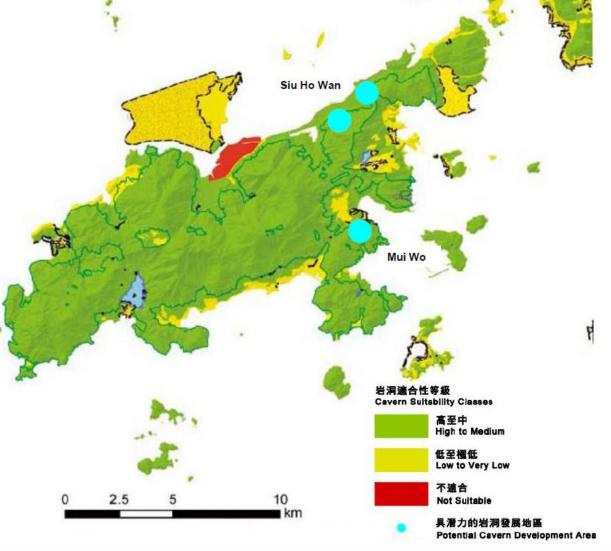


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Caverns could be utilized for relocating the existing infrastructure facilities so to release surface sites for other developments such as residential, recreation and other uses.

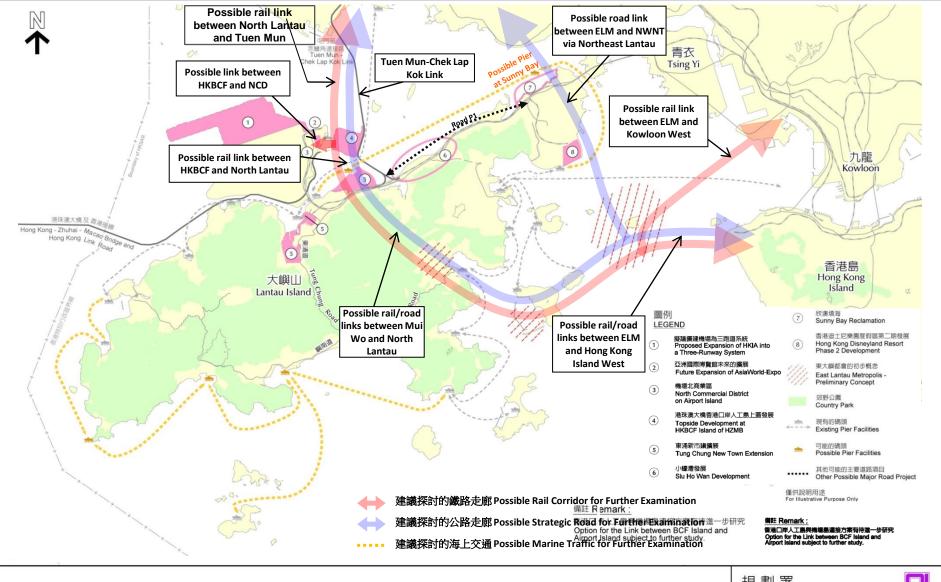






Plan 4 : Cavern and Underground Space Development

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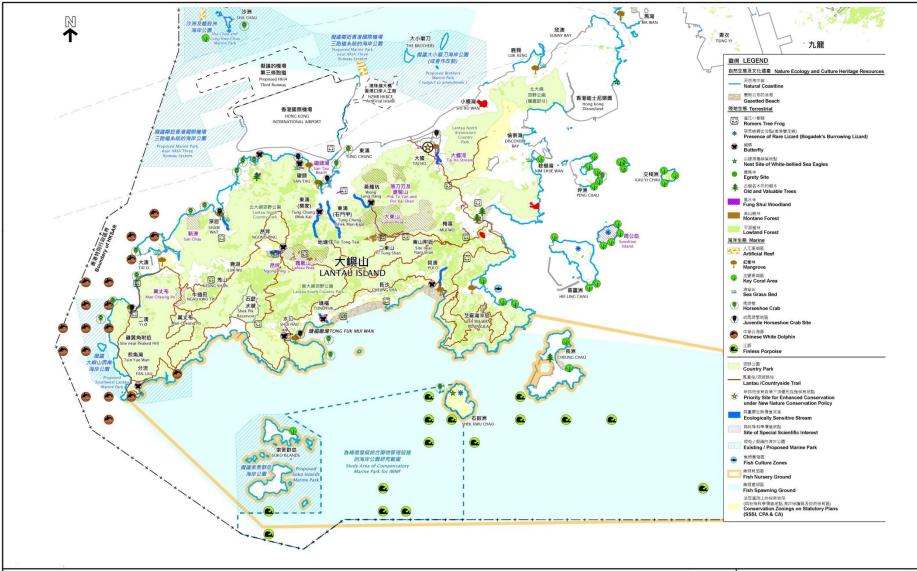
Plan 5: Concepts of Strategic Transport Network for Lantau

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Major Development Proposals / Supporting Transport Infrastructures Concepts / @ indicates the possible Broad Population and Employment Estimates / Broad Timeframe@ completion time (The actual uses, development scale, feasibility and implementation arrangement for some of the development projects will require further study: the implementation timing for some of the projects would also be dependent on the plans of the responsible organisations) **Short Term Medium Term** Long Term **Development Proposals Developments within TCNT Tung Chung New Town Extension East Lantau Metropolis NCD on Airport Island** SHW Depot, Reclamation and Surrounding Dev. **HKBCF Island & Topside Dev. Sunny Bay Reclamation HK Disneyland Phase 2 Development Three-Runway System Future Expansion of AsiaWorld-Expo** Dev. after Consolidation of Correctional Facilities **Other Major Tourism Recreational Facilities** Transport Infrastructure Road P1# **HZMB** Railway/Highway Corridor for NWNT - Lantau - Metro Area*^ TM-CLKL TCL West Extension (including TCW Station) * TM-CLKL already under construction New Station(s) along TCL supporting ^ Some part(s) of the connection may be available North Lantau Dev. # in Medium Term to support North Lantau Dev. # To be explored in relevant development studies **?** 700,000 – 1,000,000 Total population ₹ and employment opportunities = assuming full completion of all proposals \$\$\$\,338,000 \$160,000 **110,000** 470.000 270,000 **138,000** 94,000 **Short Term Medium Term Long Term** 規劃署 Plan 6: Major Development Proposals / Supporting Transport Infrastructure PLANNING DEPARTMENT Concepts / Broad Population and Employment Estimates/Broad Timeframe 圖則編號 Plan No.

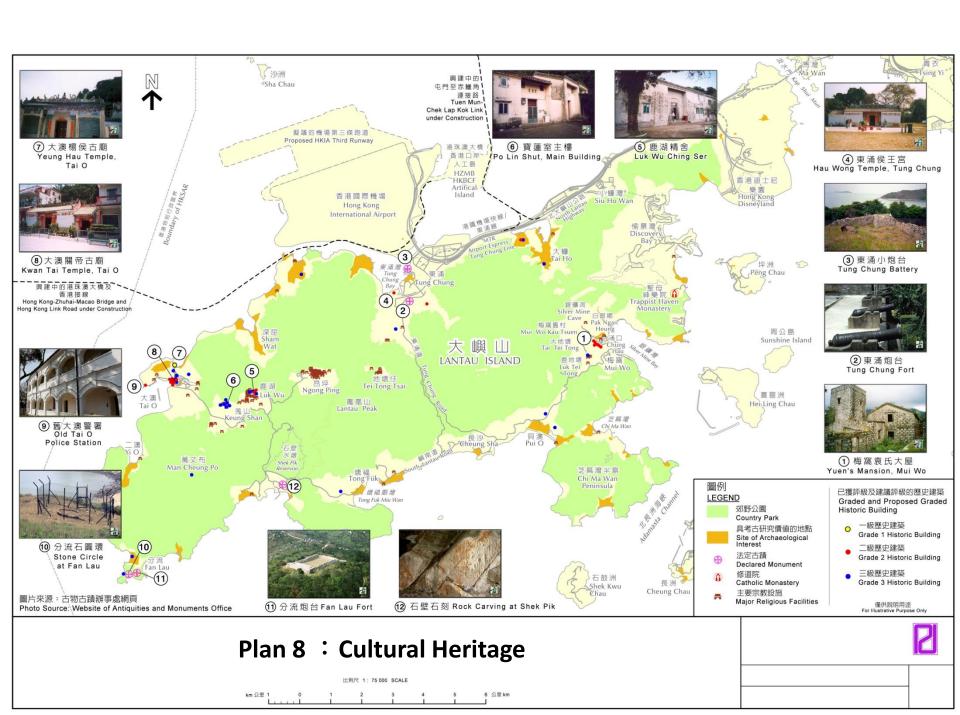


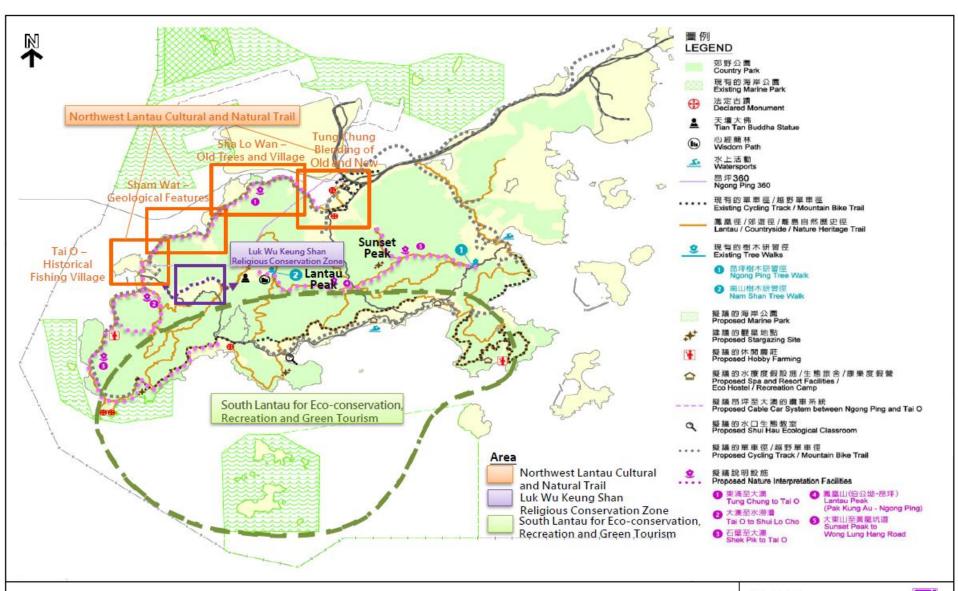
Plan 7: Nature Conservation

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Plan 9 : Conservation, Recreation and Tourism Concepts

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Plan 10: Northwest Lantau Cultural and Natural Trail

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Development Potentials and Considerations of Lantau

1. The **development potentials** of Lantau are summarised below:

International and Regional Levels

- International and Regional Transport Hub: Lantau is an international and regional transport hub. The HKIA links some 180 destinations around the world. Most of Asia's major commercial cities are within 4-hour flight time, while half of the world's population is within 5-hour flight time⁷. The planned 3RS of the HKIA will further strengthen the connectivity to the rest of the world, consolidate the position as an aviation hub and enhance the competitiveness of Hong Kong. (Annex Plan A) Besides, with the imminent completion of the HZMB and the TM-CLKL, Lantau will become the converging point of regional traffic and multi-modal transport hub from Guangdong (especially the eastern and western coasts of Pearl River), Hong Kong and Macao, promoting regional flow of people, goods, vehicles and information.
- 1.2 Linking the PRD Economic Growth Zone: The population and economic development of the PRD has increased rapidly in recent years. The developments in Shenzhen, Dongguan and Jiangmen are mature. Zhuhai, Zhongshan and Nansha etc. have abundant resources with enormous development potentials. Lantau is strategically located at the converging point of the two development axes of PRD: one axis extending north towards Shenzhen and Guangzhou and the other axis extending west towards Macao, Zhuhai and Zhongshan. With the completion of HZMB, the travelling time between Hong Kong and western PRD would be substantially reduced. The travelling time between the HKIA and Zhuhai would be reduced from the existing 4 hours to about 45 minutes, which could reduce the cost and time of land transportation. With the HZMB, the commodities from the western PRD, western Guangdong and even Guangxi etc. can further utilise the airport and container terminals of Hong Kong. The position of Hong Kong as a trade and logistics hub will be enhanced.
- On the other hand, the TM-CLKL will link Lantau and the NWNT directly, as well as the highways network linking the transport network of Shenzhen. The completion of HZMB and TM-CLKL would help connect Hong Kong with the Free Trade Zones (including Nansha and Qianhai/Shekou) of China (Guangdong). (Annex Plan B)
- 1.4 <u>Potential for Bridgehead Economy</u>: The completion of the HZMB will bring substantial increase in passengers and goods flows to Lantau. Therefore, the HKBCF Island is a strategic "double-gateway" of Hong Kong connecting the PRD and the world. It is also a key node where flows of international, regional and local visitors, talents and goods converge. There is great potential to develop bridgehead economy at this strategic location through expanding facilities for receiving tourists and enhancing the overall economy of Lantau and Hong Kong.

⁷ Source: http://www.investhk.gov.hk/zh-hk/why-hong-kong/strategic-location.html

Local Level

- Linking NWNT: The existing population of the NWNT is about 1 million and the future population will increase to 1.5 million, with the planned development of Hung Shui Kiu New Development Area and Yuen Long South etc. The NWNT is a major development zone of Hong Kong in the future. The under-construction TM-CLKL will become the most direct route between the NWNT and Lantau, and would significantly shorten the travel distance between the two areas. Besides, together with the planned 3RS of HKIA and other development projects of Lantau, Lantau will provide substantial employment opportunities, while the existing and future population growth of NWNT will provides a large workforce. The traffic pressure from NWNT to the urban areas could thus be lessened.
- 1.6 Geographical Advantages and Potentials for Reclamation to Create Land: The TCNTE Study proposes the reclamation of Tung Chung East for comprehensive development to realise the development potential of Tung Chung. Sunny Bay and Siu Ho Wan along the northern coast of Lantau are in close proximity to North Lantau Highway, and have potential for strategic economic development through reclamation. central waters between Lantau and Hong Kong Island are ecologically less sensitive when compared with the western and northern waters of Lantau. Creation of sizeable flat land by reclamation at suitable location(s) within the central waters would allow comprehensive planning for increasing the long-term land supply to meet our housing, economic and social needs. Additionally, the central waters of Lantau are geographically closer to the core business districts of Hong Kong than other parts of the NT. Through connection of strategic transport network, Lantau has the potential to become another core business district for providing job opportunities and promoting economic development.
- 1.7 <u>Synergy Effect with Existing Economic and Tourist Facilities</u>: There are diversified tourist, convention and economic facilities on Lantau. Through strengthening the connectivity among these facilities and with development of large-scale entertainment, hotel and shopping facilities etc. at suitable locations, synergy effect would be created and would transform Lantau into a major tourist entertainment hub. This would in turn reinforce Hong Kong's position as an international tourism and events capital.
- 1.8 <u>Rich Natural, Historical and Cultural Tourism Assets</u>: Lantau is endowed with rich landscape, ecological and cultural heritage assets and rural characteristics. It could be further developed for green ecological and cultural tourism.
- 2. The **development consideration** of Lantau are summarised below:
- 2.1 <u>Topography</u>: Lantau is mostly hilly with limited flat land. The topography of northern Lantau is steeper than Hong Kong Island. Landslide is active among natural slopes, with several records of mudslides. Most of the country park terrain is hilly with slopes of over 30 degrees or situated within water gathering ground, and is not suitable for development. It is difficult to undertake road construction or widening works. Development in these areas would require careful attention to the potential hazards associated with its natural steep slopes. (Annex Plan C)

- Ecology: Lantau and its surrounding areas are rich in terrestrial and marine biodiversity, such as the Chinese White Dolphins, the finless porpoises, the rare lizard species (Bogadek's Burrowing Lizards) and the White Bellied Sea Eagles etc. There are also a number of Sites of Special Scientific Interests (SSSIs) and rivers with important ecological values. Besides, there are some existing and proposed marine parks in the nearby waters of Lantau and coral areas found in Peng Chau and Hei Ling Chau. Reclamation may affect the water quality, fisheries and the fish culture zones and should be subject to investigation.
- 2.3 Transport and Infrastructure Facilities: Currently, the external transport connection between Lantau and the urban districts is primarily reliant on the North Lantau Highway and Tsing Ma Bridge. The capacity to cope with the increase in traffic volume would depend on the overall planning and development density of Lantau. The internal road network system is mainly reliant on Tung Chung Road linking northern and southern Lantau, while South Lantau Road, Keung Shan Road and Tai O Road serve southern Lantau. As these roads are closed roads, and some of them are constructed on hilly terrain, the traffic flow should not be high, and is not suitable for high volumes of large vehicles/trucks to use. In addition to the hilly relief, the extension of these roads is difficult. To cope with the further development of Lantau, it is necessary to assess the need and how to strengthen the other transport facilities (including parking spaces) and public transport services (including the feeder bus services connecting the Airport Island). In terms of infrastructural facilities, the existing sewage treatment, water supply, drainage and waste treatment facilities in Lantau are insufficient to support the additional large-scale development. comprehensive review is required in order to cope with the overall development of Lantau.
- 2.4 Other Considerations: Apart from the above major considerations, the development of Lantau has to take into account other factors and restrictions, such as environmental and potential hazard considerations, rural development and cultural heritage, height and other restrictions relating to aviation, the Deed of Restrictive Covenant of the Hong Kong Disneyland and port facilities and marine traffic etc.

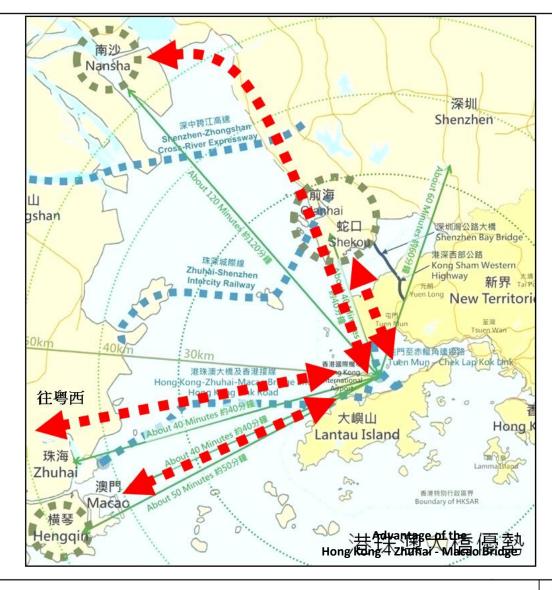


Annex Plan A: International Transport Hub

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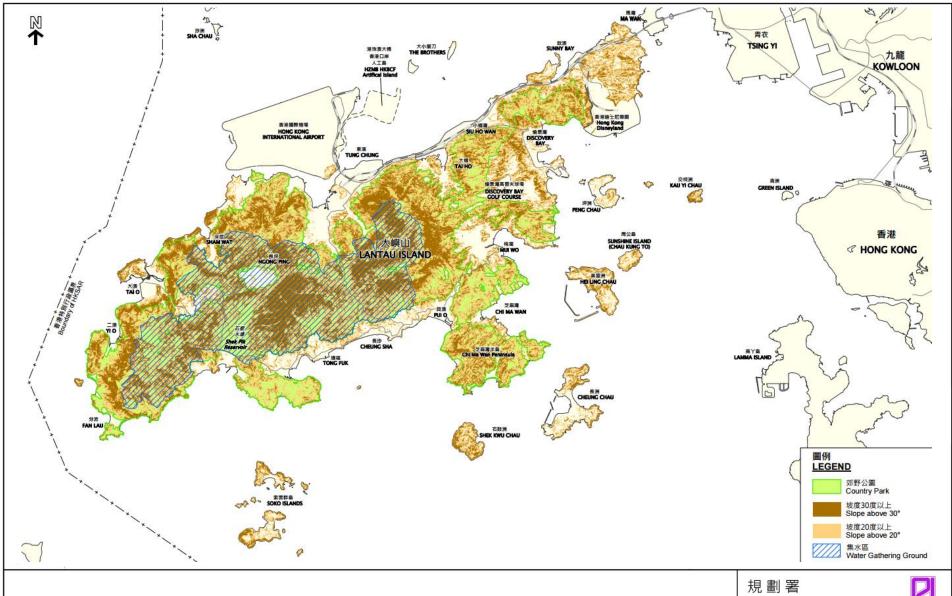


Annex Plan B: Linking with the PRD Economic Growth Areas

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Annex Plan C: Terrain of Lantau

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Strategic Positioning, Planning Vision and Directions and Planning Principles for Lantau

1. Four Strategic Positioning

- (1) an international transport, logistics and trade hub in the Greater PRD Region;
- (2) a service hub of the Greater PRD Region and Asia;
- (3) a treasure of natural assets of Hong Kong; and
- (4) a strategic growth area with a new metropolis in the central waters between Lantau and Hong Kong Island.

2. **Planning Vision**

2.1 "To promote the strategic growth and sustainable development of Lantau by balancing the needs for development and conservation" with a view to creating Lantau as a desirable place to live, to do business, to work and to leisure.

3. Four Planning Directions (Annex Plan D)

- (1) Northern Lantau Corridor for economic and housing development;
- (2) North-eastern Lantau Node for leisure, entertainment and tourism;
- (3) East Lantau Metropolis for strategic growth with a core business district; and
- (4) Predominant Lantau for conservation, leisure, cultural and green tourism.

4. The **Overall Spatial Planning Principles** are summarised below:

- 4.1 <u>Archiving Synergy Effects by Developing the Strategic Role of Lantau</u>: There are many major commercial developments for diversified economic industries along the northern coast of Lantau. The roles are complementary and thus achieving synergy effects, leveraging Lantau's geographical advantage from Hong Kong/PRD, for developing a destination for development, commerce as well as for tourism.
- 4.2 <u>Concentrated and Compact Development Mode</u>: In order to increase land utilisation, to have better agglomeration effect, it is suggested to concentrate the strategic economic development and major population growth at the northern shore and eastern part of Lantau. This will increase the cost-effectiveness of the transport infrastructural and basic facilities. This development mode will also lessen the need for developing land and enhance the conservation of sites with high ecological, landscape, cultural and historic values.
- 4.3 <u>Efficient Spatial Development with Large-scale Reclamation</u>: The northern shore of Lantau, including Sunny Bay, Siu Ho Wan and Tung Chung East, is in proximity to the North Lantau Highway with development potential through reclamation. The reclamation of the

central waters will provide sizeable new land for comprehensive and large-scale planning for developing the ELM.

- 4.4 <u>Utilisation of Existing Government Land, Development of Cavern and Underground Space:</u> It is suggested to study the optimisation of existing Government facilities, for instance the consolidation of facilities to release the already formed Government land so as to increase land supply. Besides, it is suggested to study the development of cavern or underground space at geologically suitable sites. Some infrastructural facilities that are incompatible with the community could be relocated to caverns so as to release at-grade development space for more appropriate uses. When planning new development areas, early consideration should be given to the provisioning of appropriate infrastructural facilities into caverns or underground space.
- More Convenient, Efficient and Environmentally-Friendly Railway System Connecting the Development Nodes, Enhancing Internal and External Transport Linkage: Railway system is the backbone of urban development. The future major economic growth and development nodes at the northern shores of Lantau and the ELM will also be linked by railway system for achieving greater development potential. Railway is a more environmentally-friendly mode of transport. When commissioning detailed planning, development and facilities with heavy pedestrian patronage should be planned in the vicinity of railway stations and public transport nodes. Besides, road network will supplement the railway system in linking the major economic growth and development nodes.
- More Balanced Distribution and Matching of Living Population and Employment: The diversified economic developments of Lantau needs to be supported by new population growth. The future TCNTE and ELM will bring major population growth to Lantau. A balanced housing mix coupled with adequate recreation and community facilities will lead to harmonious community development. The future population of the NWNT will provide a large workforce to support the economic development of Lantau and thus lead to a more balanced distribution and matching of living population and employment.
- 4.7 <u>Promoting Urban-Rural Integration</u>: Many of the existing villages and rural areas in Lantau still maintain their traditional rural characteristics. There are also many active farmland. In the process of development, these villages and rural characters should be maintained so as to create a rich living experience and cultural landscapes.
- 4.8 <u>Achieving "Blue and Green Development"</u>: There are many rivers on Lantau. In the planning and design stages on river channel projects, the Government should continue to embrace "Blue and Green Development" concepts so as to protect the environment. When designing the drainage improvement engineering works, the original ecological function of the rivers could be preserved while at the same time reducing flooding risks.
- Enhancing Conservation and Promoting the Unique Natural and Cultural Tourism Assets: The land and surrounding waters of Lantau are endowed with rich ecological, historic, cultural and landscape assets. Proposals should help further consolidate and highlight their conservation values. Having due regard to their conservation values, these assets could be utilised for green tourism, recreation and educational uses for enjoyment by the public.



Annex Plan D: Four Development Directions

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