

# Planning, Land and Infrastructure

*The government makes timely investment in infrastructure and capital works to meet the demands of public need, striking a pragmatic balance among the various objectives of development, providing a better living environment, and conserving heritage through effective land use, urban renewal and greening.*

## Organisational Framework

The Development Bureau consists of two policy branches: the Planning and Lands Branch and the Works Branch.

The Planning and Lands Branch is responsible for policies governing planning, development, land use and supply, urban renewal, building safety and land registration. Its policy objectives are to facilitate Hong Kong's continual development through effective planning and use of land, a steady and sufficient supply of land, a facilitative building plan approval system, efficient registration of land, promotion and regulation of building safety and timely maintenance, and expedition of urban renewal.

The Works Branch is responsible for formulating public works policies and coordinating and monitoring the implementation of public works projects. It also takes charge of policy matters concerning the increase of land supply through reclamation outside Victoria Harbour and rock cavern development, the development of a new core business district (CBD) in Kowloon East, greening and tree management, water supply, slope safety, lift and escalator safety, flood prevention, promotion of professional services, construction manpower resources, workers' registration as well as heritage conservation.

The Development Bureau oversees the departments of Architectural Services, Buildings, Civil Engineering and Development, Drainage Services, Electrical and Mechanical Services, Lands, Planning, and Water Supplies, as well as the Land Registry, which helps coordinate and resolve inter-departmental issues on infrastructure development at an early stage. The bureau also provides policy guidance to government departments on greening, landscape and tree management, and is responsible for the government's heritage conservation work and striking a balance between development and conservation. The government's heritage conservation

policy and initiatives, drawn up in response to public aspirations, aim to facilitate active public involvement in protecting local heritage.

## Planning

### Strategic Planning

Strategic land use planning in Hong Kong has a long history and has provided important guidance to the city's development over the decades. In October, the government launched a six-month public engagement exercise on the latest update of its territorial development strategy, 'Hong Kong 2030+: Towards a Planning Vision and Strategy Transcending 2030' (Hong Kong 2030+). The strategy serves to guide planning, land and infrastructure development and the shaping of the built and natural environment beyond 2030. It encompasses three building blocks: 'Planning for a Liveable High-density City', 'Embracing New Economic Challenges and Opportunities' and 'Creating Capacity for Sustainable Growth'. These building blocks are translated into a conceptual spatial framework to realise the government's vision for Hong Kong in continuing to be a liveable, competitive and sustainable 'Asia's World City'.

'Planning for a Liveable High-density City' acknowledges the benefits of Hong Kong's compact high-density development model and proposes eight city attributes to further improve liveability. A quality living environment is one that is compact, integrated, unique, diverse, vibrant, healthy, inclusive and supportive. It is also a place where green and blue assets are appreciated by the public, where public space can be enjoyed by all and where our ageing urban fabric is well maintained with timely rejuvenation.

'Embracing New Economic Challenges and Opportunities' proposes strategic directions to move the city up the value chain and diversify the economy, thereby creating quality jobs with a range of skills. It also advocates the timely provision of adequate land, space and supporting infrastructure, and seeks to promote innovation, technology and collaboration, as well as to nurture and retain suitable human capital.

'Creating Capacity for Sustainable Growth' sets out to create sufficient development capacity through a multi-pronged approach while enhancing the environmental capacity via biodiversity enhancement and environmental improvement, all to be supported by a smart, green and resilient city strategy.

The conceptual spatial framework comprises:

- **one Metropolitan Business Core.**
- **two Strategic Growth Areas.** The East Lantau Metropolis and the New Territories North will provide capacity for long-term sustainable development.
- **three Development Axes.** The Western Economic Corridor will serve as an international and regional gateway supported by strategic transport infrastructure, the Eastern Knowledge and Technology Corridor will provide space for development of a tech-ecosystem for high-technology and knowledge-based industries, and the Northern

Economic Belt will create potential for warehousing, research and development (R&D) and modern logistics, capitalising on its strategic location close to Shenzhen.

## **Strategic Growth Areas**

### *East Lantau Metropolis*

The basic concept of the East Lantau Metropolis is to create artificial islands via reclamation in the waters near Kau Yi Chau and the Hei Ling Chau Typhoon Shelter, and to better utilise underused land in Mui Wo, with the aim of creating a smart, liveable and low-carbon development cluster that encompasses a CBD3. Spatially, it tallies with an overall westward shift in centrality of the regional development pattern. It also provides a new platform to leverage development potential spurred by new and improved regional transport connections extending from the traditional CBD to the Pearl River Delta east and west.

### *New Territories North*

In developing the New Territories North, comprehensive planning and more efficient use of brownfield sites and abandoned agricultural land in the New Territories would be employed to provide land for building new communities and developing modern industries and industries preferring a boundary location, while improving the living environment of the area. A new town at Heung Yuen Wai/Ping Che/Ta Kwu Ling/Hung Lung Hang/Queen's Hill, together with two potential development areas at San Tin/Lok Ma Chau and Man Kam To, have been identified. Strategically, the growth area provides space to develop economic and employment nodes outside the Metropolitan Business Core and redresses the current home-job imbalance of the territory. Spatially, it leverages the strategic transport infrastructure serving and being improved for the area and its strategic proximity with Shenzhen to capture economic opportunities for Hong Kong.

## **Town Planning Board**

The Town Planning Board (TPB), established under the Town Planning Ordinance, oversees the preparation and review of statutory plans and considers planning applications. In 2016, it amended 13 statutory plans and published five new outline zoning plans and two Urban Renewal Authority development scheme plans. The board also promulgates guidelines for statutory planning. It had 32 sets of guidelines as at the year end.

Any person may submit views on draft statutory plans to the TPB. In 2016, the board examined 21,468 such submissions and filed 16 statutory plans to the Chief Executive in Council for approval. It also considered 78 applications for amendments to statutory plans, 1,042 for planning permission, 801 for amendments to the approved schemes and 66 to review the decisions of its Planning Committees.

Applicants aggrieved by the TPB's decisions may lodge appeals with the independent Town Planning Appeal Board. In 2016, the appeal board heard eight cases, of which four were dismissed, one was allowed, one was adjourned and two were awaiting the decision.

### ***Hong Kong Planning Standards and Guidelines***

The Hong Kong Planning Standards and Guidelines provide the criteria for determining the scale, location and site requirements of various land uses and facilities applicable to planning studies, town plans and development control. These are reviewed from time to time to take account of changes in government policies, demographic characteristics, and social and economic trends. During the year, updates were made to the two chapters relating to planning guidelines on residential densities and internal transport facilities.

### ***Cross-Boundary Planning and Development***

The government maintains close liaison with Mainland authorities, particularly Guangdong and Shenzhen. Cross-boundary surveys are commissioned regularly to collect statistics on cross-boundary activities, such as travel patterns and Hong Kong people's experience of, and aspirations to, taking up residence on the Mainland. The findings help in planning cross-boundary infrastructure and formulating development strategies. The Planning Department published the results of the latest cross-boundary travel survey in December.

### ***Harbourfront Enhancement***

The government is committed to protecting Victoria Harbour and beautifying its harbourfront, and is constructing progressively, through effective resources allocation, promenades on both sides of the harbour and improving their accessibility for public enjoyment. During the year, an urban design study for the Wan Chai North and North Point harbourfront areas continued with a stage 2 public engagement exercise held from June to August on the refined urban design framework, proposed harbourfront enhancement initiatives and a master layout plan. Separately, in November, a two-month stage 2 community engagement exercise was launched on a proposed boardwalk underneath the Island Eastern Corridor. Open tenders were invited to extend to mid-2020 the temporary use of the observation wheel and event space to bring vibrancy to the Central Harbourfront. The government also recognises the wish of the Harbourfront Commission to establish a Harbourfront Authority and is working with the commission to take harbourfront enhancement work to the next level.

### ***Kowloon East***

The bureau's Energising Kowloon East Office steers and monitors the transformation of Kowloon East, comprising the former industrial areas of Kwun Tong and Kowloon Bay and the new Kai Tak Development, into another CBD. The office maintains close liaison with the local community and the public, taking part in seminars, exhibitions and other events and hosting foreign delegations to exchange experiences.

Ongoing work includes adopting a 'Walkable City' concept to provide a convenient and comfortable pedestrian environment, improving the overall environment, increasing land supply by vacating government facilities for commercial and office use, implementing the Kai Tak Fantasy project, and using Kowloon East as a pilot area to explore the feasibility of smart city development. In February, the office commissioned a smart city consultancy to formulate strategies and set directions and priorities for various proposals that would demonstrate the effectiveness of smart and innovative initiatives.

## Lantau Island

In January, the Lantau Development Advisory Committee submitted to the Chief Executive its first-term work report, 'Space for All', covering mainly five aspects of proposals: spatial planning and land use, conservation, strategic traffic and transport infrastructure, recreation and tourism, and social development. The public's views on the proposals were collected from January to April and, taking into account those views, the government is preparing a blueprint for Lantau development and conservation for publication in the first half of 2017. The Civil Engineering and Development Department (CEDD) in 2016 started phase 2 stage 1 improvement works at Mui Wo and Tai O as well as the improvement and expansion of mountain bike trails in South Lantau.

## Land Supply

Providing land for infrastructure, facilities and development is an important part of the government's work to meet development needs. The supply of new developable land through reclamation and site formation and different types of properties has slowed down significantly over the past decade despite continued growth in population, households and Gross Domestic Product.

Hong Kong needs to increase land supply to support its sustainable development. The government adopts a multi-pronged strategy to increase land supply in the short, medium and long term:

- **Increasing development intensity of developable land:** mainly by raising the development intensity of individual housing sites by up to 20 per cent where planning terms permit, and lifting development restrictions on specific areas where it is considered justified and acceptable to do so;
- **Changing land use and converting reserved sites:** mainly by conducting land use reviews of existing land, such as government sites and green belt, to identify potential sites suitable for housing, economic and other development needs and to initiate change of their uses, and by converting reserved sites with no development plan or for which the original purpose is no longer pursued for other suitable uses where planning terms permit;
- **Facilitating and expediting development and redevelopment on existing land:** mainly by expediting railway property development and urban renewal, streamlining development processes and implementing measures, such as the Pilot Scheme for Arbitration on Land Premium, to facilitate private development;
- **Taking forward major land development projects:** mainly by taking forward planning and engineering studies and works for comprehensive development of new development areas and new town extensions, including the conversion of brownfield sites and squatter areas in the rural New Territories for high-density development; and

- **Exploring new sources of developable land and space:** mainly by conducting studies to explore new modes or sources of providing developable land and space, including brownfield sites, reclamation outside the harbour, and development of caverns and underground space.

In the short to medium term, the most immediate and effective way to augment land supply is to make more optimal use of developed areas in urban areas and new towns, and land in the vicinity of infrastructure, through appropriately increasing the development intensity of developable land, changing land use, converting reserved sites, and facilitating and expediting development where planning terms permit.

In the medium to long term, the government is taking forward land supply projects including the Kwu Tung North and Fanling North New Development Areas (NDAs), Tung Chung New Town Extension, Hung Shui Kiu NDA and Yuen Long South development. These involve releasing large tracts of brownfield sites and deserted agricultural land in the rural New Territories as well as reclamation in environmentally less sensitive waters.

The government is also exploring reclamation outside the harbour, cavern and underground development, and Hong Kong 2030+ proposes that the East Lantau Metropolis and New Territories North provide capacity for sustainable development and identify ways of creating space for growth.

### **Land Use Strategy**

As a prudent and visionary long-term strategy, Hong Kong 2030+ advocates a capacity-creating approach to generate both development and environmental capacity. Land with high ecological, landscape and/or historical value will be preserved, while degraded areas, the fringes of built-up areas and the two Strategic Growth Areas could be considered for development. Five broad measures are proposed: optimisation, such as upzoning and rezoning sites for development; swapping, such as freeing up land by relocating land uses not requiring prime locations and releasing land with low conservation value and public enjoyment value for other uses; innovation, such as exploring the idea of rock caverns; creation, such as reclaiming waters with low ecological and environmental value outside the harbour; and life-cycle planning, such as prudent planning of beneficial after-use of quarries, landfill sites and other temporary premises.

### **Land Use Reviews**

Through reviews of land use, the Planning Department has identified some 150 potential housing sites, most of which may be made available for development in the five years from 2014-15 to 2018-19 to provide more than 210,000 flats, of which over 70 per cent can be public housing, subject to amendments to their respective statutory plans. Separately, for the various initiatives to increase land supply announced in the 2013 Policy Address, 42 sites were zoned or being rezoned for residential use in the short to medium term by end-2013, capable of providing about 40,000 flats in total, with over 60 per cent for public housing. As at end-2016, 91 out of these 190-odd potential housing sites had been zoned or rezoned for housing and were estimated to yield about 107,200 flats, comprising about 62,000 public housing and 45,200 private housing flats. For another 21 sites, statutory rezoning procedures had been initiated to

eventually bring about an estimated 17,300 flats, of which some 14,400 and 2,900 would be public and private housing flats respectively.

### ***Housing Land Supply***

Public housing land supply comes from new government housing sites and redevelopment of existing public housing estates. Private housing land supply comes from various sources, including the disposal of government sites for private residential development through the Land Sale Programme, railway property development, urban renewal and private development or redevelopment projects.

In December, the government updated the total housing supply target for the 10 years between 2017-18 and 2026-27 to 460,000 flats, with public housing accounting for 60 per cent of the new production. There is, however, no easy and painless option to increase and expedite housing land supply, particularly in the short run. The community as a whole has to make hard choices and accept trade-offs to realise the housing supply target for the people of Hong Kong.

### ***Commercial and Industrial Land Supply***

Measures to increase the supply of commercial/business sites include putting up new commercial and industrial sites for sale, converting government properties and government, institution or community sites in CBDs for commercial use, providing commercial space at the Central Harbourfront upon completion of works, energising Kowloon East as the second CBD, continuing with industrial-building revitalisation until 31 March 2016, and earmarking land for commercial and industrial use in new development projects.

The government is pursuing the provision of sites in CBDs for commercial use. It finished rezoning the Murray Road Multi-storey Carpark Building and Queensway Plaza in Central for commercial and office use in November and will put up the carpark building for sale in the first quarter of 2017. A planning and design study is under way to examine the potential of government sites at Sai Yee Street and Mong Kok East Station for a comprehensive development featuring housing, commercial/office/hotel projects, open space and/or government, institution or community facilities.

Kowloon East has the potential to supply about 4.7 million square metres of commercial and office floor space in addition to its existing supply of over 2.3 million sq m. One government site was sold in 2016, providing about 102,000 sq m of commercial and office floor space. The commercial and office gross floor area in the Kowloon Bay and Kwun Tong Action Areas will be increased from 500,000 sq m to 560,000 sq m.

On a separate front, a study is in progress on how to utilise land optimally at the Hong Kong Boundary Crossing Facilities Island of the Hong Kong-Zhuhai-Macao Bridge for commercial and other economic uses. A total gross floor area of up to 500,000 sq m can be made available.

### ***Land Disposal***

Government land is usually disposed of through public sale for private residential, commercial and other developments. Included in the Land Sale Programme are sites that it anticipates can become available for sale in the year. The government announces quarterly Land Sale

Programmes in advance to provide transparency and certainty for the market and may add sites for sale in the course of a year or a quarter so as to respond more flexibly to changes in market conditions.

In 2016, 23 residential sites, four commercial/business sites, one industrial site and four petrol stations, covering about 36.6 hectares in total, were sold for about \$84.75 billion.

Lessees of leased land, commonly known as private landowners, may apply to the Lands Department for a lease modification or land exchange so as to, for instance, redevelop based on the town plan. The department acts as a private landlord in considering such applications. Approvals, if granted, are subject to terms and conditions that may include the payment of premiums and administrative fees. In 2016, the department concluded 97 lease modification and land exchange transactions, involving about 2,304 hectares and land premiums amounting to about \$8.33 billion.

The Pilot Scheme for Arbitration on Land Premium, launched in 2014 for two years to facilitate agreement on land premiums payable for lease modifications and land exchange transactions, was extended for two more years until October 2018.

### ***Reclamation Outside Victoria Harbour***

In 2016, technical studies on reclamation at Ma Liu Shui, Siu Ho Wan and Lung Kwu Tan continued. With timely funding approval, a planning and engineering study on Sunny Bay reclamation will start in 2017.

### ***Cavern Development***

A detailed investigation and design study was under way on the planned relocation of the Sha Tin sewage treatment works to caverns so that the original 28-hectare site could be released for residential and other uses. Feasibility studies to relocate three other service reservoirs or sewage treatment works to caverns also continued.

A territory-wide Cavern Master Plan and initiatives to facilitate wider application of cavern development were formulated based on the recommendations of a study on long-term strategy for cavern development.

### ***Underground Space Development***

A territory-wide study for underground development was completed to provide the basis for future planning and development of underground space. A pilot study continued in four strategic urban areas, namely Tsim Sha Tsui West, Causeway Bay, Happy Valley and Admiralty/Wan Chai, to formulate underground master plans and identify suitable priority projects in these areas.

## **Major Planning Studies and Development Projects**

### ***Kwu Tung North and Fanling North New Development Areas***

The Kwu Tung North and Fanling North outline zoning plans, approved in 2015, provide a land use framework to meet the city's long-term housing, social and economic development needs.

The NDAs will provide about 60,000 new flats altogether, with about 60 per cent being public rental housing and Home Ownership Scheme units, to accommodate an additional population of about 173,000. The two areas will also produce about 37,700 new job opportunities. Development works are ongoing, to be completed fully by 2031. The first phase involves site formation and associated engineering infrastructure for about 16,000 flats to accommodate about 46,500 residents, with the first population intake in 2023 at the earliest, and to support subsequent NDA development. Detailed design and site investigation for this first phase were under way and major construction works could start in 2018 at the earliest.

### ***Tung Chung New Town Extension***

The proposed Tung Chung New Town Extension is expected to provide about 49,400 flats and a commercial hub with gross floor area of about 877,000 sq m for office, retail and hotel use along with about 40,000 new jobs to meet housing, social, economic, environmental and local needs. The statutory plans and reclamation works were gazetted in January and the environmental impact assessment report was approved in April. Detailed design and site investigation started in mid-2016. Construction was anticipated to begin in end-2017 for the first population intake in end-2023 at the earliest.

### ***Quarry Sites***

The Anderson Road Quarry site and Ex-Cha Kwo Ling Kaolin Mine site are envisaged to provide about 9,400 and 2,300 new flats to accommodate additional populations of about 25,000 and 6,000 respectively. Outline zoning plans covering these sites were amended in 2015 and 2014 respectively. For the Anderson Road Quarry site, design of the site formation and infrastructure works were under way and construction was anticipated to begin in 2017 for the first population intake in 2023-24.

For the Ex-Lamma Quarry Area in Sok Kwu Wan, the government is exploring how to implement developments proposed under an ongoing planning and engineering study and expects to complete the task in 2017.

A preliminary land use study was launched for the Lam Tei Quarry and its adjoining areas to identify and examine possible land uses and formulate a land use concept plan for study sites and strategic cavern areas in Lam Tei.

### ***Hung Shui Kiu New Development Area***

The Hung Shui Kiu NDA will provide about 61,000 new flats to accommodate an additional population of about 176,000, and will produce about 150,000 new job opportunities, according to a revised recommended outline development plan announced in September. The environmental impact assessment report was approved in December 2016. An outline zoning plan was under preparation, with the first population intake expected in 2024.

### ***Yuen Long South***

A revised recommended outline development plan for Yuen Long South was under formulation after a community engagement exercise on the draft plan ended in the second quarter.

### ***Liantang/Heung Yuen Wai Boundary Control Point***

The Liantang/Heung Yuen Wai Boundary Control Point is a cross-boundary infrastructural project jointly carried out by the Hong Kong Special Administrative Region Government and the Shenzhen Municipal People's Government. It adopts a design concept of direct access by passengers and vehicles. A public car park, pick-up and drop-off areas for private cars and a pedestrian subway linked to the adjacent area will be provided in the passenger terminal building. Construction started in 2013 for completion in 2018.

### ***Lok Ma Chau Loop***

The development of the Lok Ma Chau Loop, covering 87 hectares, will comprise higher education, high-tech R&D and cultural and creative industries, based on a planning and engineering study conducted jointly by the HKSAR Government and the Shenzhen Municipal People's Government. In 2016, both governments continued to discuss the implementation of the development. Detailed design of land decontamination and advance engineering works was in progress.

### ***Kai Tak***

The Kai Tak Development is a large-scale, highly complex urban development project under phased implementation, covering the former airport precinct and the adjoining areas with a footprint of about 320 hectares. The first phase of infrastructural works and facilities have been commissioned, mainly the Kai Tak Cruise Terminal, two public housing estates, two primary schools, a fire station, the Trade and Industry Tower, Kwun Tong Promenade, Runway Park Phase 1, early stages of infrastructural works and the district cooling system. Major items under construction or about to start include Hong Kong Children's Hospital, Kowloon East Regional Headquarters and Operational Base cum Ngau Tau Kok Divisional Police Station, a secondary school, the remaining infrastructural works and the district cooling system, and the section of the MTR Shatin to Central Link within the Kai Tak Development.

In 2016, the CEDD completed a technical study on increasing the development intensity of the Kai Tak Development and recommended increasing residential and office gross floor areas through rezoning and raising building heights and plot ratios.

The department was also conducting a detailed feasibility study on a proposed environmentally friendly linkage system for Kowloon East to enhance the area's connectivity and support its transformation into a new CBD.

### ***Wan Chai***

The main purpose of the Wan Chai Development Phase II project is to provide land for essential transport infrastructure, including the Central-Wan Chai Bypass. The reclaimed land will also be used to develop a harbourfront promenade from Central to North Point. The land required for the bypass has been formed. The roads connecting to the bypass will be completed in the first quarter of 2018 before the commissioning of the bypass between end-2018 and the first quarter of 2019.

### ***Tuen Mun West***

A planning and engineering study was in progress to examine the development potential of Tuen Mun areas 40 and 46 and the adjoining areas. A preliminary outline development plan was under formulation, taking into account comments received during the first community engagement exercise.

### ***Hong Kong Boundary Crossing Facilities Island of Hong Kong-Zhuhai-Macao Bridge***

A planning, engineering and architectural study was being conducted to explore the optimum use of land at the island for aboveground and underground commercial development and other economic uses. The study will recommend an overall development concept and formulate development parameters. A draft recommended outline development plan was being drawn up ahead of the stage 2 community engagement exercise in 2017.

### ***Cycle Track Network in New Territories***

A vast cycle track network in the New Territories is under development in phases, from Ma On Shan in the east to Tuen Mun and Tsuen Wan in the west. Continuous cycle tracks spanning 30km from Ma On Shan to Sheung Shui are open to the public. The Tuen Mun-Yuen Long section was substantially completed in end-2016 and the remaining works of the Yuen Long-Sheung Shui section were in progress.

## **Urban Renewal**

Urban renewal improves living conditions in old urban areas, primarily through redevelopment and rehabilitation of buildings in need of repair. The bureau formulates policy on urban renewal and oversees the work of the Urban Renewal Authority (URA), a statutory body established to carry out urban renewal.

The URA takes a district-based approach in accordance with the 2011 Urban Renewal Strategy to ensure its self-initiated projects create greater planning and social gains upon redevelopment. In 2016, five development projects and schemes in Kowloon City District commenced under the approach to provide over 2,800 flats by 2025-26.

Building rehabilitation improves the built environment and reduces the need and urgency for redevelopment. As at 31 December, the URA's rehabilitation programmes had benefited about 3,700 building blocks.

## **Building Development**

### ***Private Sector***

In 2016, work started on superstructures at 123 building sites, covering a gross floor area of 2.02 million sq m. Altogether 557 such buildings, with a total gross floor area of 2.13 million sq m, were completed at a total cost of \$72 billion, compared with 623 buildings with a gross floor area of 1.9 million sq m, built at a cost of \$50 billion in 2015.

### **Public Sector**

The Architectural Services Department develops and upkeep most government buildings and public facilities, other than public housing. It takes into account the views and suggestions of stakeholders in improving barrier-free features at government facilities. In 2016, the department started construction of 37 projects. It completed 31 projects, including the West Kowloon Law Courts Building, Tin Shui Wai Hospital, and a public library and indoor recreation centre in Yuen Long.

Government projects won a number of local and international awards in 2016, including awards from the Hong Kong Institute of Architects, Hong Kong Institution of Engineers, HK Quality Building Award, HK Green Building Award, HK Institute of Landscape Architects, HK Institute of Urban Design, Royal Institute of Chartered Surveyors (HK) and Architects Regional Council Asia.

### **Built Heritage Conservation**

The government's heritage conservation policy is to protect, conserve and revitalise as appropriate historical and heritage sites and buildings through relevant and sustainable approaches for the benefit and enjoyment of present and future generations. Due regard is given to development needs in the public interest, respect for private property rights, budgetary considerations, cross-sector collaboration and the active engagement of stakeholders and the public.

A Built Heritage Conservation Fund was set up in 2016 to subsidise public education, community involvement and publicity activities, as well as academic research. The fund also subsidises certain existing government measures on built heritage conservation.

As at end-2016, eight projects launched under the Revitalising Historic Buildings Through Partnership Scheme of the Commissioner for Heritage's Office (CHO) of the bureau had started operation. Four other projects were expected to be completed in 2017 and 2018, while preparation for another three projects was in progress, with the renovation works expected to end by 2019. The CHO also launched projects on four government-owned historic buildings in 2016. Separately, the government partnered with the Hong Kong Jockey Club and the Musketeers Education and Culture Charitable Foundation and its partners to revitalise the Central Police Station Compound and the former Police Married Quarters on Hollywood Road respectively.

In the private domain, the CHO and the Antiquities and Monuments Office closely monitor any works or development of declared monuments and graded historic buildings and proactively engage owners of historic buildings to discuss preservation options. To help owners maintain their premises, the CHO approved grants for maintenance works at nine privately owned graded historic buildings in 2016. It also expanded the scope of the Financial Assistance for Maintenance Scheme and raised the grant ceiling from \$1 million to \$2 million for each works project.

Restoration and repair works were carried out on the former Kowloon British School in Tsim Sha Tsui and the residence of Ip Ting-sz in Sha Tau Kok. Archaeological investigations were

conducted in Tuen Mun, Lamma Island and North District. Archaeological features including ancient wells and stone building remnants dated to the Song-Yuan period were discovered at the works site for To Kwa Wan MTR station along the Shatin to Central Link. Most of these unearthed features will be preserved in situ for future public display.

The Antiquities Advisory Board advises the government on matters relating to antiquities and monuments. As at end-2016, it had confirmed the gradings of 1,342<sup>1</sup> historic buildings to provide an objective basis for guiding conservation efforts. Blocks 7, 10 and 25 of the old Lei Yue Mun Barracks in Chai Wan were declared monuments during the year, in accordance with the Antiquities and Monuments Ordinance.

## **Development Framework**

### ***Planning Control and Enforcement***

The Planning Authority has enforcement powers under the Town Planning Ordinance to tackle unauthorised developments (UDs) in development permission areas. It may serve statutory notices on the respective landowners, occupiers and other responsible persons, requiring them to stop or discontinue a UD within a specified time. A further statutory notice may be served later to require the site to be reinstated. Non-compliance is a statutory offence.

In 2016, the Planning Authority discovered 447 new UD, including unauthorised open storage, workshops, vehicle parks and land/pond fillings, and issued 3,458 warning letters or reminders involving 660 cases, 2,014 enforcement notices involving 373 cases, 650 reinstatement notices involving 100 cases and 2,319 compliance notices involving 347 cases. A total of 171 defendants in 61 cases were convicted. The enforcement and prosecution actions resulted in the discontinuation of 335 UD on 72 hectares of land. Another 35 UD occupying 8 hectares of land were regularised through the planning application system.

### ***Land Management and Lease Enforcement***

The Lands Department manages 452 properties which have been reverted to government ownership through surrender, lease expiry, re-entry and other similar actions. During the year, it took over 34 properties for management and disposed of seven properties.

The department keeps a register of man-made slopes and is responsible for the maintenance and safety of about 20,000 of them. It inspects these slopes regularly and, in 2016, oversaw routine maintenance and improvement works on 7,090 and 192 slopes respectively. The department's website provides information about the responsibility for maintenance of registered slopes.

The department administers a Small House Policy for indigenous villagers in the New Territories and approves the rebuilding of old village houses. In 2016, it approved 858 applications to build small houses and 370 applications to rebuild old village houses. The department processes rent exemption requisitions for indigenous villagers' rural properties in accordance with exemption criteria listed in the Government Rent (Assessment and Collection) Ordinance.

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<sup>1</sup> This figure comprises items on the list of 1,444 historic buildings and new items proposed for grading.

The department carries out squatter control work. There are about 6,680 surveyed squatter structures in urban areas and about 380,400 in the New Territories. Under current policy, these structures are tolerated until they cease to exist or are to be cleared for development, environmental improvement or safety reasons. During the year, 271 illegal structures and extensions were demolished by the Squatter Control Unit, in addition to unauthorised structures cleared by other sections of the department in the context of land control and lease enforcement.

The department also handled 17,446 cases of reported unlawful occupation of government land, of which 11,606 cases required site clearance, including clearance by the occupiers in response to the department's enforcement actions. It also handled another 2,140 cases, involving breaches of lease conditions.

The Tree Unit under the department provides in-house advice on tree and landscape issues relating to leased land, and on tree maintenance matters relating to the health and structural conditions of trees on unleased and unallocated government land not taken up by other departments. The unit handled 3,132 cases concerning trees and landscape issues on private and government land in 2016.

### ***Land Conveyancing***

The Lands Department's Legal Advisory and Conveyancing Office provides legal advice and conveyancing services for government land transactions. These include drafting all government land disposal and lease modification documents and checking titles in land acquisitions. It also processes applications for sale of units under construction under the Lands Department Consent Scheme. In 2016, 43 applications were approved. Of these, 36 applications related to residential developments, involving 17,008 flats. It also approves Deeds of Mutual Covenant. In 2016, 43 such deeds were approved. It also processes apportionments of premium and government rents, and recovers arrears of government rents by taking re-entry or vesting action.

### ***Land Acquisition***

Private land may be acquired for public use through voluntary surrender or resumption under ordinances which provide for compensation for the property's value and for the loss of business. If the amount of payment cannot be agreed, either party may seek adjudication at the Lands Tribunal. Some 55,273 sq m of private land were acquired in 2016. Compensation amounting to \$480.7 million was paid.

The Lands Department is involved in resuming land for urban renewal projects. In 2016, compensation totalling \$312.8 million was paid under the Lands Resumption Ordinance to owners of 48 resumed properties affected by 15 urban renewal projects. Compensation amounting to about \$111 million was paid for a number of railway projects, including the Hong Kong section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link and the West Rail.

## Land Registration

The Land Registry provides a comprehensive service for registering documents affecting land and keeping land records in electronic format for public search. More than three million land registers and 23 million documents can be retrieved electronically.

### *Land Registry Business Volume in 2016*

#### Registration Services

(Distribution of Land Documents Lodged for Registration)

Nature	Number
Agreements for sale and purchase of building units	73,004
Agreements for sale and purchase of land	2,588
Assignments of building units	77,374
Assignments of land	5,211
Building mortgages/building legal charges	56
Other mortgages/legal charges	81,923
Others	187,876
Total	428,032

#### Search Services

(Distribution by Search Mode)

Counter Searches		Searches via Internet	
Number	Per cent	Number	Per cent
425,031	8%	4,683,820	92%

Hong Kong adopts a deeds registration system. To enhance certainty of title and simplify conveyancing procedures, the Land Titles Ordinance (Cap 585) has been enacted but it will not come into effect until a comprehensive review is completed and the necessary amending legislation is passed. During the year, the registry worked closely and exchanged views with stakeholders on revised proposals for rectification and indemnity provisions as well as options for converting land to the title registration system. The two sides will continue discussions to draw up a package of proposed legislative amendments for public consultation.

## Survey, Mapping and Geospatial Information Service

The Lands Department's Survey and Mapping Office provides survey and mapping services to support land administration and infrastructure development, and develops maps with different themes to meet the public's needs, such as conventional topographic maps, countryside maps and guide books. The office carries out land boundary surveys and provides photogrammetric and aerial survey services. It also maintains a geodetic survey network and the Satellite Positioning Reference Station Network System, which form the essential positioning infrastructure in Hong Kong, as well as the Land Information System, which enables more efficient survey and mapping activities. The office provides support to the Land Survey Authority to administer the Land Survey Ordinance, which governs the registration and conduct of authorised land surveyors and land boundary survey standards.

The office's Satellite Positioning Reference Station Network provides data for positioning applications in mapping, construction works, navigation, land use planning and scientific research. During the year, the service was enhanced to support various satellite positioning applications within the territory using multi-constellation Global Navigation Satellite Systems, including China's Beidou Navigation Satellite System.

The office operates the GeoInfo Map, which offers the public convenient access to digital maps and geospatial information provided by various departments through the internet. It also offers MyMapHK, a mobile map application which provides on-the-go access to the department's digital maps and community facilities via their mobile devices. In 2016, the office launched another new mobile map app, VoiceMapHK, which is a digital inclusion mapping service helping users, in particular the visually impaired, to identify their locations and retrieve geographic information about the surrounding area through voice-overs.

The SMO continues to supply new types of i-Series digital maps. These offer more comprehensive data sets and modernised formats. Users get to define their areas of interests to save themselves the trouble of combining discrete tiles of digital maps into one single file.

### ***Building Safety and Maintenance***

Ensuring the safety of Hong Kong's ageing building stock is one of the bureau's key areas of work. It works with the Buildings Department and partner organisations to enhance building safety.

Applying the principle that prevention is better than cure, Mandatory Building and Window Inspection Schemes under the department tackle building decay at its root by requiring owners of target buildings to inspect and repair their buildings and windows. In 2016, the department issued statutory notices to 1,644 buildings. The Minor Works Control System adopts simplified statutory procedures to regulate small-scale building works, with 135,187 minor works submissions received in 2016 compared with 115,832 in 2015.

The Buildings Department, the URA and the Hong Kong Housing Society provide a number of schemes to help building owners carry out repairs and maintenance. In 2016, over \$523 million was granted in the form of subsidies or loans to eligible property owners.

The URA's new 'Smart Tender' Building Rehabilitation Facilitating Services pilot scheme provides technical support to building owners in carrying out repairs and maintenance to reduce the risk of bid rigging during procurement. The technical help includes providing a DIY toolkit to guide owners in organising the works; engaging an adviser to offer independent advice to them on the scope and estimated cost for reference; and setting up an electronic tendering platform for them to conduct their works tendering process of engaging contractors in a relatively independent environment.

On enforcement, the Buildings Department has various measures in place to enhance the effectiveness of its actions against unauthorised building works (UBWs). In 2016, the department stepped up enforcement against unauthorised signboards, including carrying out large-scale street operations and applying for priority demolition orders against large signboards. It took

priority enforcement against new UBWs and those creating a high risk of fire or to a building's structural safety, including UBWs associated with subdivided units. Removal of UBWs erected on the exterior of buildings, including rooftops, podiums and yards, as well as enforcement action at New Territories village houses continued. The department attended to 36,461 reports on UBWs, served 12,901 statutory removal orders and removed 26,430 UBWs. A total of 3,362 offenders were prosecuted for failure to comply with the orders and 2,713 cases were adjudicated, resulting in 2,165 convictions and fines totalling \$12.1 million.

### **Lifts and Escalators**

The government carries out long-term improvement measures to enhance the safety of lifts and escalators. Measures taken in 2016 included strengthening inspections, updating the Performance Assessment Scheme for the Contractors' Performance Rating System, releasing for public reference lift maintenance prices for private residential and commercial premises, and promoting modernisation of aged lifts and escalators.

### **Greening, Landscape and Tree Management**

The Greening, Landscape and Tree Management Section takes a holistic approach to urban landscape based on enriching vegetation diversity and enhancing 'place ecology'. It promotes the principle of 'Right Tree, Right Place' to achieve a more activated place ecology. This recognises trees as one of the elements of an urban setting, contributing to a holistic outlook enriching the living environment.

The section issues guidelines on proper urban arboricultural practices in tree risk assessment, management and maintenance for public safety. It enforces these guidelines as part of a broader sustainable urban forestry strategy.

The section also works to structure the education and practices of the arboriculture and horticulture industry and raise the industry's professional standing. In 2016, it helped form a Steering Committee of the Horticulture and Arboriculture Trade Confederation to facilitate industry communication and assisted the Arboriculture and Horticulture Industry Training Advisory Committee in developing a qualification framework.

The government's landscape policies promote liveability through delivering higher quality landscape planning and design in the upstream and more diligent landscape management downstream. This is supported by the life-cycle planning of urban forestry assets and moderation of the vegetation's life expectancy within the dense and compact city of Hong Kong. The target is to enrich vegetation diversity, enhance the urban landscape and maximise the liveability of the environment at every opportunity.

## **Infrastructure**

### **Infrastructure Investment**

The government builds new infrastructure and improves existing facilities to meet economic development needs and enhance the living environment. Capital works expenditure was about \$76 billion in 2015-16. The annual expenditure is expected to stay at a high level for the next few years.

### **Project Cost Management**

The bureau established a Project Cost Management Office in June to achieve better cost management for public works. The office will undertake a comprehensive review of requirements and works policies, project-by-project scrutiny of cost estimates, and enhancement of project management.

### **Drainage Services**

The Drainage Services Department manages about 2,749km of drains and watercourses. To reduce flooding risks, it carries out various flood prevention projects. In 2016, the department undertook the planning, design and construction of flood prevention works at a total estimated cost of about \$12.7 billion.

In the New Territories, the department had constructed about 102.5km of trained rivers, 25.4km of stormwater drains and 27 village floodwater pumping schemes over the years. It undertook the planning, design and construction of improvement works to 15.6km of rivers and 9.4km of stormwater drains in the northern and northwestern New Territories in 2016 to cater for local developments and address probable effects of climate change.

The department is implementing phase 2 of the Happy Valley Underground Stormwater Storage Scheme and Kai Tak River Improvement Works. These projects, when completed in 2017 and 2018 respectively, will further reduce the risk of flooding in those areas. The department applies to the Kai Tak River Improvement Works a concept of revitalising water bodies to promote greening, beautification and water friendliness to turn the drainage facility into a green river corridor in addition to preventing floods.

The department inspects, de-silts and repairs drainage systems regularly. In 2016, it inspected about 2,183km and de-silted about 686km of drains and watercourses at a cost of about \$120 million.

### **Slope Safety**

The CEDD improves slope safety by adopting better standards and technology, ensuring all new man-made slopes meet safety standards, improving the safety of existing man-made slopes, and mitigating natural terrain landslide risks. The department also issues landslide warnings and provides information, education and community advisory services on slope safety.

Under a long-term Landslip Prevention and Mitigation Programme, the department spent about \$1.3 billion in 2016 to upgrade 165 substandard government man-made slopes and to mitigate the landslide risk of 49 natural hillside catchments, all landscaped to blend in with their surroundings. It also conducted safety screening studies on 102 private man-made slopes.

### **Water Supplies**

#### ***Water from Guangdong***

Since 1965, Hong Kong has been receiving raw water from the Dongjiang, now the city's major source of raw water. The Dongjiang agreement maintains flexibility in the daily supply rate,

ensures a reliable source of supply and avoids wastage of precious water resources. About 629 million cubic metres of Dongjiang water was imported in 2016.

### *Water Storage and Consumption*

Full supply was maintained throughout the year, during which the territory recorded rainfall of about 3,027mm. Storage reservoirs held some 426 million cubic metres of water at the end of 2016.

Some 987 million cubic metres of fresh water was consumed in 2016, with an average daily supply of about 2.7 million cubic metres. Another 260 million cubic metres of sea water was supplied for toilet flushing.

### *Total Water Management*

The government manages water demand and supply in an integrated, multisectoral and sustainable manner under its Total Water Management strategy. It contains growth in water demand through water conservation, which includes running a ‘Cherish Water Campus’ campaign, holding an educational programme for primary schools and installing flow controllers in public housing estates, schools and government buildings.

In 2016, a consultancy study on the investigation review, design and construction of the first stage of a proposed desalination plant in Tseung Kwan O continued. The design of infrastructural works for reclaimed water supply to the northeastern New Territories for non-potable uses, studies about the finance and legal framework on reclaimed water and a consultancy review of the Total Water Management strategy were also under way.

### *Water Works*

A replacement and rehabilitation programme that involved some 3,000km of aged water mains had reduced the number of mains bursts from around 2,500 cases in 2000 to about 116 in 2016. The leakage rate had also been lowered from over 25 per cent in 2001 to about 15 per cent in 2016. The entire works programme was substantially completed at the end of 2015.

The expansion of Tai Po Water Treatment Works and its ancillary water transfer facilities continued. The in situ reprovisioning of the South Works of the Sha Tin Water Treatment Works, for which advance works started in 2015, is targeted for completion in 2023.

### *Consumer Accounts*

The number of water consumer accounts was about 2.9 million at the end of 2016.

### *Construction Industry*

#### *Construction Industry Council*

The Construction Industry Council aims to raise standards in the industry, including construction site safety, subcontracting, environment and technology, procurement, and manpower training and development. Its training centres provide training and trade testing services.

In 2016, the council received 718 applications for its Subcontractor Registration Scheme and approved 604, bringing the totals to 9,572 and 8,920 respectively since the scheme was introduced in 2003.

### *Registration of Workers*

As at December, there were about 425,000 registrants under the Construction Workers Registration Ordinance. The bureau and the council were preparing for the implementation of a 'designated workers for designated skills' requirement in April 2017. Preparatory work conducted in 2016 included deploying outreach teams to help eligible workers apply for registration at their workplaces, issuing guidelines and briefing industry stakeholders.

### *Manpower Development*

The bureau works with the council to train local workers and attract new entrants. Between 2009 and 2016, the council trained more than 24,000 semi-skilled workers for trades with projected labour shortages, acute ageing or recruitment difficulties. It is exploring with the industry the introduction of more effective and appropriate measures to enhance the training schemes.

### *Promotion of Professional Services*

In September, procedures to implement liberalisation measures for the Hong Kong construction sector under the Closer Economic Partnership Arrangement in Guangxi took effect after the geographical coverage of the measures was extended from Guangdong to Guangxi and Fujian.

Two Hong Kong consultancy firms were engaged in 2015 to supervise two foreign aid building projects in Nepal and Cambodia, under a collaborative effort between the Development Bureau and the Ministry for Commerce. In 2016, the bureau continued discussions with the ministry on providing more foreign aid projects to Hong Kong consultancy firms; engaging the firms in different types of projects including infrastructure; and expanding the scope of their services to project planning, design, procurement, construction and final acceptance.

The Qianhai Authority has selected a project by a Hong Kong developer to practise Hong Kong's project management system. It has also compiled a register of Hong Kong's architectural, building services, quantity surveying and structural engineering firms which may provide professional services for projects funded principally by Hong Kong businesses. The Development Bureau will pursue with the Qianhai Authority the inclusion of building surveying and landscape architectural firms in the register.

### *Website*

Development Bureau: [www.devb.gov.hk](http://www.devb.gov.hk)