



EXECUTIVE SUMMARY

- ▣ Our Environmental Performance
- ▣ Our Social Performance
- ▣ Our Economic Performance

This is the thirteenth edition of the Sustainability Report published by the Hong Kong Housing Authority (HA), **Collective Intelligence • Building Together**. This Report highlights the annual achievements and progress of HA's sustainability performance from 1 April 2017 to 31 March 2018. It is prepared in accordance with the Core Option of the internationally recognised Global Reporting Initiatives (GRI) Standards. This Executive Summary aims to provide you with an overview of our sustainability performance and achievements in 2017/18.



Our Environmental Performance

We set 41 environmental targets for 2017/18, of which 40 were achieved. Only the target for collecting used clothes for recovery was not met due to the keen promotion of waste reduction and re-use of used clothes in our estates. We will closely monitor our progress and revisit the target in the coming year.

Our environmental performance for this year is outlined below:

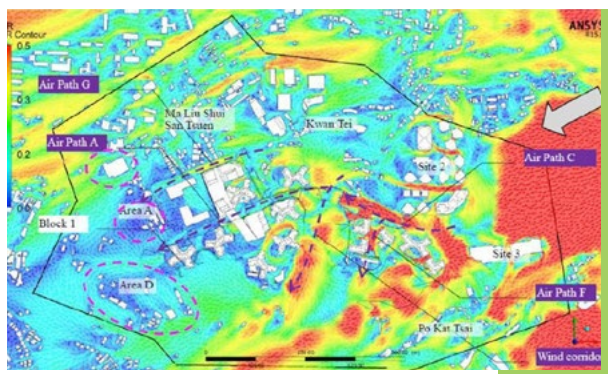
Policies at the Divisional Level

- ♦ The Development and Construction Division, the Estate Management Division and the Independent Checking Unit completed the transition to the 2015 edition of ISO 14001 Environmental Management System (EMS) certification.
- ♦ The Corporate Services Division was making progress to migrate ISO 14001 EMS to the 2015 edition.

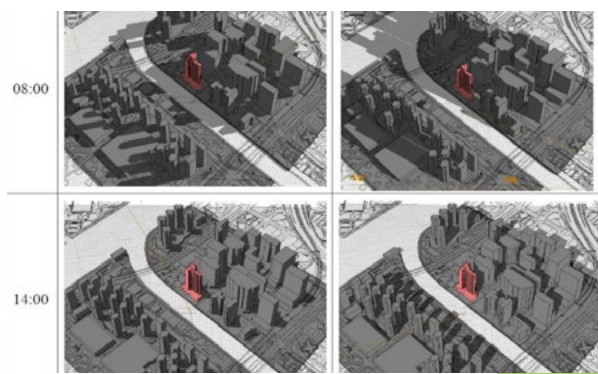
Initiatives in Planning and Construction of New Housing Estates

Conducting Micro-climate Studies and Air Ventilation Assessment

- ♦ The HA conducts micro-climatic studies and Air Ventilation Assessment at the planning and design stage to optimise natural ventilation and use of daylight. Taking into account the characteristics of winds, pollution dispersion, natural daylight, solar energy balance and many other environmental factors, the study provides us with a holistic view on the development projects' environmental impact to the surrounding area.
- ♦ In 2017/18, micro-climatic studies were conducted in 22 on-going public housing projects and 18 projects were analysed under the Air Ventilation Assessment.



- ♦ Air Ventilation Assessment of development proposal at Queen's Hill



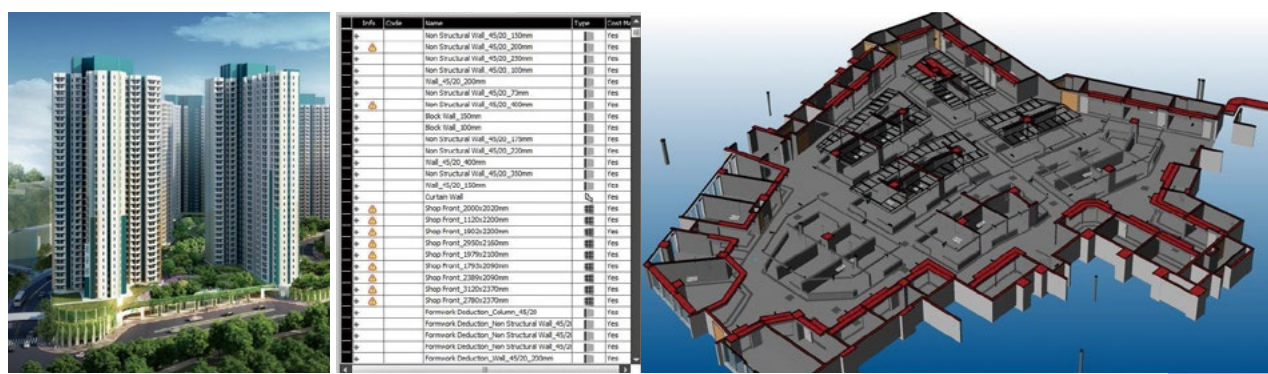
- ♦ Sun shading study for design of open space

Utilising Green Materials and Products

- ◆ To reduce cement consumption and promote recycled materials applications, part of the cement in precast facades and stairs are mandatorily substituted with Ground Granulated Blast Furnace Slag for all our new projects.
- ◆ In order to improve the quality of building materials and components, we have implemented product certification for 11 buildings and building services materials as a measure of effective upstream control. In 2017/18, the new certification for multi-layer acrylic paint was introduced.
- ◆ In 2017/18, we announced the mandatory use of B5 bio-diesel as a fuel for all off-road construction machinery on site after consulting the Hong Kong Construction Association and contractors.

Environmentally Friendly Construction Practices

- ◆ Today all new HA development projects utilise Building Information Modelling (BIM) as part of the planning and design process. It is applied at many different stages of projects, from conducting feasibility studies through to developing the scheme design, and is also used as a value management and design optimisation tool, and during construction. By adding on considerations of both time and cost, we are piloting the innovative 5D BIM which enables even more accurate forecasting and better planning of resources.
- ◆ We applied standardised-designed precast segment roof water tanks in new projects if applicable. We published guidelines for “Implementation of Precast Construction at Roof of Domestic Block” in January 2018.



◆ 5D BIM

Green Building Recognition

- ◆ We strive to embody the environmentally friendly features into applicable projects, and require all projects to readily achieve the “Gold” rating standard in the HKGBC’s BEAM Plus certification scheme. In 2017/18, seven projects received “Provisional Gold” ratings under BEAM Plus NB.

Energy Conservation

- ◆ New building blocks, where applicable, are equipped with grid-connected photovoltaic system capable of producing over 1.5% of the power consumed in the communal area.
- ◆ In line with Government’s policy to promote the use of electric vehicles (EVs), we continued to provide EV charging facilities in new and existing carparks. In 2017/18, 25 standard EV charging facilities at nine existing carparks had been installed for monthly users on need basis.



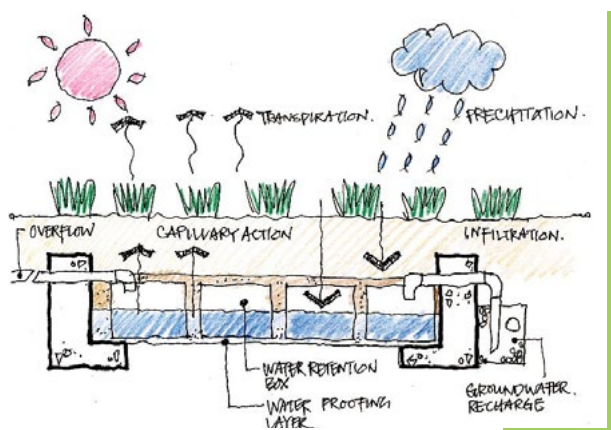
◆ EV charging facilities

Smart Meter

- To help tenants understand their environmental footprint, monthly energy consumption information generated by smart meter monitoring system is displayed in the main entrance lobbies of all new housing blocks. The presentation of peer comparison data on the use of electricity, gas and fresh water by communities and tenants aims to enhance the environmental awareness among tenants. A new standard specification is ready for implementation.

Water Conservation

- We applied the Zero Irrigation System (ZIS), which makes use of Sustainable Urban Drainage System and Sub-irrigation Planting System, to minimise irrigation water consumption in suitable housing estates. In 2017/18, ZIS was under construction in 27 projects.



- ZIS retaining rainwater and drawing up water for irrigation in a self-sustaining cycle



- Completed ZIS

Estate Ecology

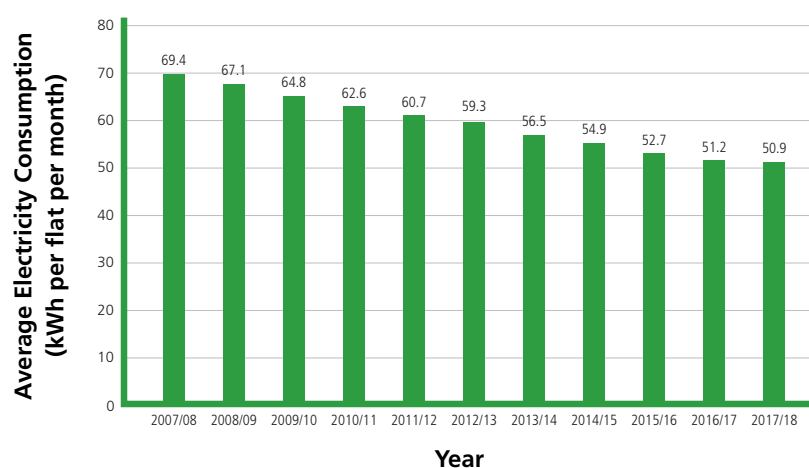
- We have established green design guidelines which emphasise on greening of housing projects. It is aimed to allocate more than 20% of new estate area for greening and 30% for sites over two hectares. The tree planting ratio is set to be one tree or more per 15 flats.

Initiatives in Existing Housing Estates

Energy Conservation and Carbon Management

- Resulting from the effective use of Energy Management System, electricity consumption in the estates' communal areas in 2017/18 was 50.9 kWh per flat per month. This represents a 0.6% decrease compared to the previous year, securing a year-on-year reduction for the 10th year.

Electricity Consumption in the Public Areas of Estates



- We continue to monitor and benchmark the carbon footprint of 14 typical housing blocks representing the majority of public rental housing (PRH) block types through carbon audits. The total carbon footprint of the 14 blocks of 2016/17 decreased when compared to the 2011/12 baseline data, in average of about 17%.
- We have joined the Energy Saving Charter and Charter on External Lighting by the Environment Bureau to monitor and reduce electricity consumption.

Waste Management

- The Source Separation of Domestic Waste Programme has been introduced in all housing estates to encourage waste separation at source and foster a waste reduction culture.
- In 2017/18, we collected about 29,204 tonnes of waste paper, 2,042 tonnes of plastic bottles, 1,541 tonnes of aluminium cans, and 892 tonnes of used clothes for recycling in our estates.
- With the waste reduction initiatives, in 2017/18, the average domestic waste production of our residents was 0.56 kg per person per day.

Greening and Tree Management

- Landscape improvement work had been carried out in a total of 20 estates.
- To strengthen tenants' awareness and involvement in greening, we organised community garden programmes in 10 estates.
- The Enterprise Tree Management System (ETrMS) has been developed and implemented to effectively assess and manage approximately 101,000 trees on the premises in around 200 housing estates in Hong Kong.



- ETrMS as a computerised database for effective tree management

Organising Green Activities

- In 2017/18, "Green Delight in Estates" Phase 10 has been concluded and Phase 11 has been commenced. "Reduction of Municipal Solid Waste" continued to be the over-arching goal of the programme, so as to echo the Government's current waste management policy.
- We have rolled out the campaign "Let's join hands to reduce waste in our estates" since 2014 to encourage PRH tenants to take part in waste reduction, recycling and reuse.
- In 2017/18, we organised greening activities for residents in 20 estates and tree planting days in 10 estates in collaboration with Estate Management Advisory Committees (EMACs).
- To encourage our shop tenants to adopt green measures for improving the overall environmental performance of the malls, we have signed up retail facilities in 20 shopping centres or estates to join the Hong Kong Green Shop Alliance.



- Launching ceremony of GDE Phase 11



- Tree planting day at Choi Yuen Estate

■ Initiatives in Office at Work

Energy and Resources Conservation

In 2017/18,

- ♦ Electricity consumption of our office premises decreased from the baseline data in 2013/14 by 9.7%, exceeding our target.
- ♦ We consumed 134,331 reams of paper which represents a 4.4% decrease from the baseline data in 2013/14.
- ♦ The HAHQ used 11,042 cubic metres of water, a 27.8% reduction compared with the consumption in 2007/08.

Green Culture and Activities

- ♦ Joined hands with a non-profit making charity organisation, we have organised two “Environmental Collection and Recycling Campaigns” in the HAHQ, Lok Fu Customer Service Centre and Lung Cheung Office Block in June 2017 and January 2018 respectively. Over 4.7 tonnes of reusable items were collected, including shoes, handbags, books, stationeries, household items, beddings and decorations, etc.



Our Social Performance

We set 21 social targets for 2017/18 and all these targets were fully achieved. Our social performance during the reporting year is highlighted as follows:

Overview

- The Housing Department (HD) obtained the “10 Year Plus Caring Organisation Logo” for the third consecutive year, recognising the HD’s contribution to a better environment, employment and community.
- The HA’s Development and Construction Division and Estate Management Division continued to participate in the Hong Kong Quality Assurance Agency’s Corporate Social Responsibility Advocate Index annual performance assessment. The result remains satisfactory with the full score of 5.0 attained for both Divisions.



- The HD attained the “10 Year Plus Caring Organisation Logo” for three consecutive years

Initiatives in Planning and Construction of New Housing Estates

Promoting Occupational Health and Safety

- Across HA construction sites, the accident rate was 6.9 per 1,000 workers for new work contracts, below the Hong Kong average industry accident rate of 32.9 per 1,000 workers based on 2017 statistical data from the Labour Department.
- The HA issued 42 Safety and Health Alerts and organised two Site Safety Seminars and a Site Safety Forum to enhance safety awareness in construction sites.
- In 2017/18, we updated and dispatched the Site Safety Handbook and Pictorial Guide to Planning and Design for Safety to the HA staff, consultants, contractors and frontline workers for their reference.
- Performance Assessment Scoring System, Independent Safety Audit System and Surprise Safety Inspection Programme are in place to monitor the health and safety performance of contractors’ work. The Occupational Injury and Disease Surveillance System is also in place for reporting occupational accidents and fatality cases.

Building for the Community

- In 2017/18, the HA conducted Resident Surveys in newly completed estates and Post Completion Review workshops for eight projects to understand the public’s concern and comment on the planning and design of the new estates.

Initiatives in Existing Housing Estates

Revamping Facility

- The Lift Inspection Focus Team was designated to carry out audit inspection to enhance safety and reduce the risk of incidents in lifts and escalators managed by the HA.
- The Lift Modernisation Programme was maintained to assess all the lifts over 25 years of age in PRH estates.

Supporting Tenants

- The EMACs organised around 440 community building functions jointly with NGOs in PRH estates in 2017/18.
- The HA continued the Healthy Ageing in Public Rental Housing Estates 2017/18 Programme during the year to promote care to elderly tenants.
- A total of 6,160 households were benefitted from schemes under Harmonious Families Policies in 2017/18.
- iHousing mobile application was launched during the year to support efficient communication with tenants. The first phase of the mobile application covers the essential functions on rent enquiry and payment services, which act as a substitute for the cessation of the Rent Enquiry Kiosks in estate offices.
- As at 31 March 2018, over 25,000 downloads and more than 400,000 times of usage were recorded for the newly-launched app. Positive feedback has been received from PRH tenants.



- iHousing mobile application enables timely communication with PRH tenants

Initiatives in Office at Work

Developing our People

- The HA continued to run the Advanced Leadership Programme and the Housing Department Development Programme to enhance managers' competence on leadership, team communication and collaboration.
- New learning materials were uploaded to the HA e-Learning Portal to promote continuous learning among staff.

Creating Safe and Healthy Workplace

- The HA maintains the longstanding Employee Wellness Programme to offer health-related seminars to staff. In 2017/18, 13 health seminars were organised.
- In 2017/18, some 8,500 staff members attended 250 seminars and courses on occupational health and safety.

Exchanging Knowledge

- In 2017/18, we have enhanced the usability of the HA/HD website and introduced a new section "At A Glance" that groups the frequently searched housing information for easy browsing.
- The HA Exhibition Centre attracted more than 10,000 visitors during the year. Around 21% of them are from overseas and Mainland China.
- The HA sent delegations to the 22nd Conference of the Housing and Urban Public Corporations in Asia and the International Housing Forum, as well as the XXI World Congress on Safety and Health at Work 2017 in Singapore to share insights on housing development and occupational health and safety respectively.



- "At A Glance" section on HA/HD website



Our Economic Performance

The HA set four economic performance targets for 2017/18 and all of them were fully achieved. Our economic performance in this year is highlighted below:

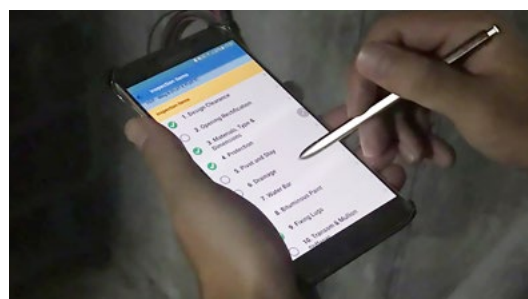
Financial Performance

- As at 31 March 2018, the HA's funds available for investment stood at HK\$45.2 billion.
- In 2017/18, the recurrent expenditure of the HA was HK\$21,924 million, which was HK\$4,974 million higher than that of 2016/17.

Initiatives in Planning and Construction of New Housing Estates

Design and Construction

- In 2017/18, the HA completed around 13,700 new flats, including around 13,400 PRH units and around 200 subsidised sales flats (SSFs).¹
- The HA continues to deploy information technology to enhance the efficiency of building design and construction. In 2017/18, the HA continued with the development of the safety alert module of Development and Construction Site Mobile System (DCSMS) Phase 2 to enhance the HA Occupational Injury and Disease Surveillance System, and several new applications.
- To improve building standards, quality and productivity, the HA conducts research and development (R&D) activities on an on-going basis. In 2017/18, a new R&D study on unmanned aerial system was carried out, accumulating the total number of research studies recorded in our database to 250.



- DCSMS mobile app facilitated safety and quality management at building sites

Optimising the Use of Resources

- The HA maintained the HA List of work contractors and property management services providers during the year.
- Considering labour shortage issue in the industry, the HA regularly reviews the requirements for Trade Tested Workers and the application of the streamlined Supplementary Labour Scheme.

Initiatives in Existing Housing Estates

Optimising the Allocation of Housing Resources

- In 2017/18, the HA allocated around 15,500 PRH units to general applicants (i.e. family and elderly one-person applicants) and non-elderly one-person applicants under the Quota and Points System.



Shui Chuen O Estate

Note:

¹ Flat numbers are rounded to the nearest hundred and thus may not add up to the total due to rounding.

- ♦ To curb tenancy abuse, the HA checked approximately 218,000 biennial declaration of income/assets under Housing Subsidy Policy, Policy on Safeguarding Rational Allocation of Public Housing Resource and other tenancy management policies.

Maximising Resource Efficiency

- ♦ Total Maintenance Scheme continues to be one of the HA's major maintenance programmes, which was implemented in 17 estates in 2017/18. We continue the Comprehensive Structural Investigation Programme and Estate Improvement Programme to extend the useful life of aged estates.
- ♦ The HA deployed information technology to assist in maintenance work, including the use of electronic templates, geodatabase and Geographic Information System in the maintenance inspection and documentation.

Optimising Utilisation of Commercial Properties

- ♦ The leasing and trade mix of retail facilities were meticulously planned by adopting a market-oriented letting strategy, so as to provide our shoppers with avenues of more shopping choices and varieties of services.
- ♦ Domain continues to be positioned as the East Kowloon regional shopping mall and entertainment hub. This year marks the fifth anniversary of Domain.



Domain's 5th Anniversary Celebration Ceremony

Initiatives in Office at Work

- ♦ The HA maintains various international management systems in office operations and extends such requirement to the contractors and service providers.
- ♦ As ISO 45001 was officially rolled out in March 2018, replacing the current OHSAS 18001 standard, the HA has alerted and encouraged our contractors and service providers to plan for the transition accordingly.
- ♦ The HA continues utilising advanced IT solutions in business operations. In 2017/18, the HA deployed the Mobile Application System for Housing Management for flat inspections and verification of tenancy information. The HA also implemented Confidential Messaging Application in the email system to enhance security control on email communication.

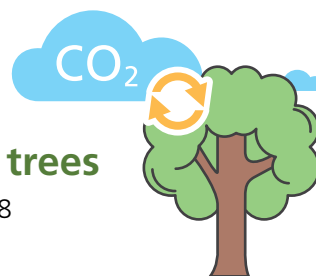
BEAM Assessed Projects

7 projects awarded & **6 projects** registered during the reporting year



Carbon Emission Estimation

Amount of CO₂ saved per year equivalent to **41,000 trees planted** for six domestic blocks designed in 2017/18



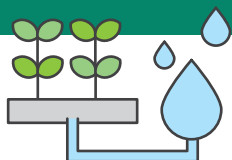
Use of Recycled Material

- About **6000 tonnes** of GGBS used
- About **124,100 trucks** of C&D materials in the HA sites were transferred for reuse



Zero Irrigation System Planter

Under construction in **27 projects**



Noise Mitigation Measures

Adopted in **7 completed projects** (Including barrier, fin, acoustic window and/or balcony etc.)



Customer Satisfaction Index

91.3%

