

2012/13 Sustainability Report

Quest for Excellence in
Low Carbon Housing



Contents

Executive Summary	1
Message from the Chairman	24
About this Report	26
About the Hong Kong Housing Authority	30
Environmental Performance	49
Social Performance	73
Economic Performance	95
Case Study 1	113
Case Study 2	116
List of Awards and Community Recognitions	122
Previous Targets	130
Targets and Outlook	137
Verification Statement	145
Feedback	147

Executive Summary

- Our Vision and Management Approaches
- Our Services
- Our Environmental Performance
- Our Social Performance
- Our Economic Performance
- Way Forward



This Sustainability Report 2012/13, ***Quest for Excellence in Low Carbon Housing***, is the eighth sustainability report which details the Hong Kong Housing Authority (HA)'s key sustainability commitments and performance in terms of economic, environmental and social aspects. This Report clearly presents our governance structure, management approaches, initiatives, operations and activities. It also summarises HA's performance and future plans in maintaining and providing local public housing programme in a sustainable manner for Hong Kong.

This Report describes the detailed achievements and progress in HA's sustainability performance from 1 April 2012 to 31 March 2013. It also states our on-going sustainability objectives and targets regarding planning, design and construction of new housing developments, management and maintenance of existing public rental housing (PRH) estates and our own office operations.

This Report has been prepared with reference to the Global Reporting Initiatives G3.1 Guidelines to achieve the A+ application level.

Our Vision and Management Approaches

The HA is a statutory body established in April 1973 under the Housing Ordinance. It supports the Transport and Housing Bureau with the Housing Department (HD) acting as the executive arm. The HA is responsible for the development and implementation of the local public housing programme, which seeks to achieve the Government's policy objective of helping the low-income families with housing need gain access to affordable housing.

Our Services

We plan, design, build, manage and maintain different types of public housing, including rental housing estates, interim housing estates, and transit centres. In addition, the HA owns and operates some flatted factories and ancillary commercial and other non-domestic facilities. We also support the Government's policy in providing subsidised home ownership flats to qualified persons.



Lung Yat Estate



Mei Tin Estate (Phase 4)

Our Environmental Performance

We set 40 environmental targets for 2012/13, including raising environmental awareness, energy efficiency, greening and landscaping, waste management, water conservation, material usage and hazardous materials management. All these targets were fully met. Our environmental performance for this year is outlined below:

Initiatives in Planning and Construction of New Housing Estates

Carbon and Energy Management

- Our Development and Construction Division had established and implemented an Energy Management System (EnMS) in accordance with the ISO 50001 standard and obtained certification in June 2012.
- As of March 2013, we have completed energy baseline comparisons, using the framework of our EnMS, for 13 projects at the design stage for further improvement.
- We adopted the Carbon Emission Estimation method for all new projects. Since its implementation in 2011, we have applied the method to 19 design projects.
- Since 2004, we have conducted micro-climate studies to optimise natural ventilation, use of natural daylight and to enhance environmental performance. This year we have conducted the studies in 33 on-going projects.
- Since 2002, we have been obtaining energy certificates for all newly completed buildings. In 2012/13, we obtained a total of 85 energy certificates for our building blocks.
- We promulgated standard specifications for the installation of photovoltaic systems in 2012 for incorporation into our electrical sub-contracts. All new housing developments were provided with one or two solar-powered light fittings for educational purpose.
- Further to the trial application at Tsz Ching Estate, we started to install Light Emitting Diode (LED) bulkhead light fittings in a larger scale trial for one entire domestic block at Kai Ching Estate at Kai Tak Development in 2012/13.
- We completed the trial applications of regenerative drives in high speed lifts.
- We have incorporated a two-level lighting system for all new domestic blocks in our building design since 2008.



LED installations at Kai Ching Estate

- We completed the trial installation of display system in Yan On Estate to provide tenants with information on electricity, gas and water consumption.
- We have introduced hybrid ventilation system to save energy of air-conditioning and mechanical ventilation systems in Yau Lai Shopping Centre, Choi Tak Shopping Centre and the Domain.

Green Construction Methods

- Since 2011, we have specified that the timber used for our temporary works as well as non-fire rating or half-hour fire rating door cores in the domestic blocks should come from sustainable sources such as Forest Stewardship Council.
- We have applied the use of hard paved construction method to all of our piling and building construction sites since 2005.
- We adopted reusable modular hoarding in housing projects including Lei Yue Mun Phase 3, Anderson Road Sites D & E, So Uk Estate Phase 2 and Sha Tin Area 52 Phases 1, 3 and 4.
- We used cement-stabilised marine mud for backfilling and paver blocks, masonry blocks and roof tiles in Kai Tak Site 1A.
- We reused recycled plastics as external decking in various projects.
- By replacing part of the cement with pulverised fuel ash in the concrete mixes, we saved about 55 000 tonnes of cement in 2012/13.
- We have specified the requirement of using Ground Granulated Blastfurnace Slag (GGBS) as a partial substitute of cement in precast concrete facades in building contracts since December 2011. GGBS would be used to replace 35% of the cement in the precast concrete facades of all new projects.
- To optimise the concrete usage, we applied Excelicrete™ technology for floor slabs and beams at the car park and commercial facilities in the pilot project of Kai Tak Site 1B.
- We incorporated the application of synthetic macro-fibre reinforcement in on-grade slabs in the design of various projects, including Sha Tin Area 52 Phase 2, Anderson Road Site D and Site E Phases 1 & 2.



GGBS as a partial substitute of cement in precast concrete facades

- As early as 1980s, we have already been pioneering the use of precasting techniques in construction of its domestic blocks. We have incorporated precast elements such as facades, stairs and semi-slabs in the design of all development projects.
- The adoption of volumetric precast bathrooms at Kai Tak Site 1A and 1B was extended to 10 other development projects, while volumetric precast kitchens were incorporated in two projects.

Greening

- We have established the overall target of 30% green coverage for all new housing projects, with a minimum of at least 20%.
- All new housing projects are planned with a tree planting ratio of not less than one tree per 15 flats.
- We have introduced an enhanced tree management plan and a tree management system that is operated on Geographic Information System.
- Two residential blocks in Tseung Kwan O 73B were selected to study the environmental benefits and energy conservation effectiveness of green roof.
- We introduced areas for community gardening and organised Action Seedling programme to promote community participation in early planting establishment.



Volumetric precast bathroom in Kai Tak Site 1B



Action Seedling at Hung Hom Estate



Action Seedling at Tung Wui Estate

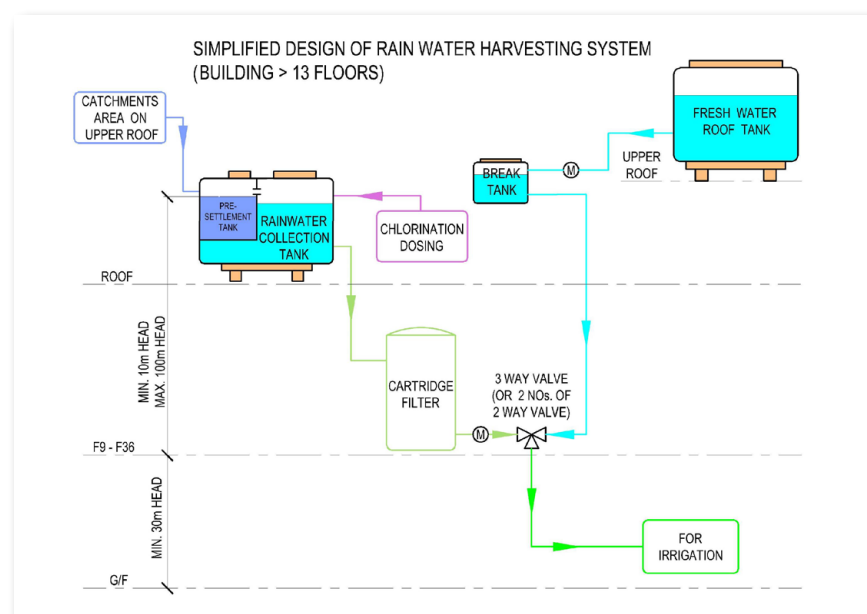
Noise and Water

- We continued to apply practical measures such as acoustic balconies, acoustic windows, architectural fins and noise barriers in order to minimise road traffic noise impacts to our residents.



Acoustic balconies and architectural fins

- In 2012/13, we promulgated specification to reduce the flushing volume of single flush water-closets from 7.5 litres to 6 litres.
- Specification requirements for the use of water efficient shower handset and mixers are applied to all new building contracts.
- Since April 2012, rainwater harvesting system has been allowed for in all new building projects in their scheme design. We continued the evaluation on the performance of the systems at two shopping centres and three estates.



Simplified design of rainwater harvesting system

- We have been installing the set-up for using reclaimed water from water-cooled air conditioning system for irrigation at the Domain.

Initiatives in Existing Housing Estates

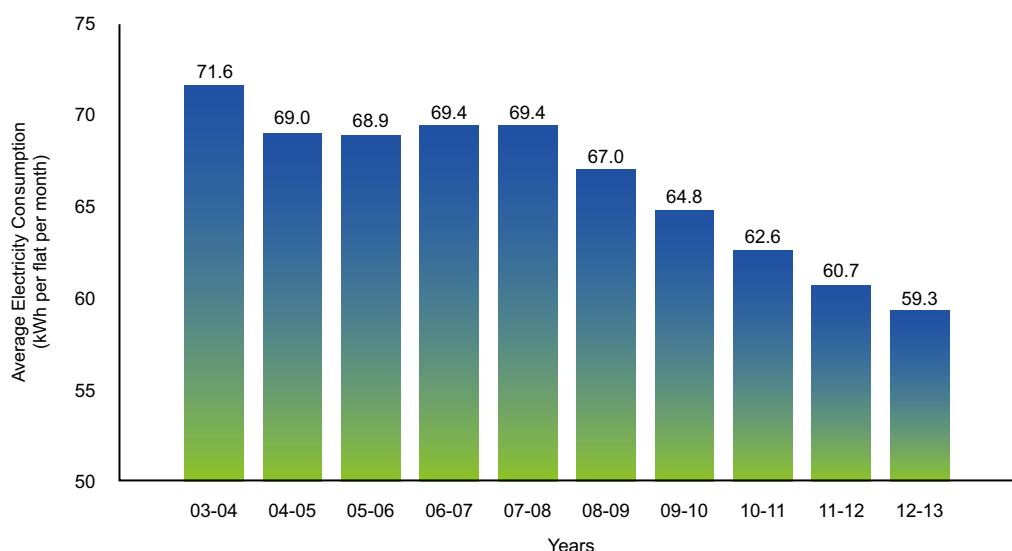
Certification

- Following the ISO 14001 Environmental Management System (EMS) certification for the property management of three pilot estates in 2011, we extended the certification to 93 estates in 2012/13.
- Kwai Shing West Estate is the first pilot estate to implement the ISO 50001 EnMS in January 2013, with certification expected in mid-2013.

Energy and Carbon Management

- The electricity consumption in the public areas of PRH blocks in 2012/13 was 59.27 kWh per flat per month, which was 2.4% lower than the level recorded in 2011/12.

Electricity Consumption in Public Area of Estates



- Starting from 2012/13, we launched a 42-month programme of replacing electromagnetic ballast with energy-saving electronic ballast for the light fittings in all our existing estates, covering around 960 building blocks. This year, we completed the replacement for 260 PRH blocks.
- We carried out carbon audits for 14 selected PRH domestic blocks of different types in 2012/13.

Greening and Landscaping

- We established two thematic gardens at Shek Yam East and Tsz Ching Estates in 2012/13.
- We established community gardens at 10 estates and completed landscape improvement works at 18 estates.
- There are 11 green roofs installed at Wo Lok, Fu Shan, Choi Hung and Fuk Loi Estates.
- To promote the knowledge and interest on trees among PRH residents and management staff, we organised 15 training courses and successfully recruited 630 volunteers of Estate Tree Ambassadors to assist in our tree management works during the year.



Theme garden at Shek Yam East Estate



Theme garden at Tsz Ching Estate

Air Quality and Noise

- We have installed electric vehicle charging facilities at four car parks in Choi Tak Estate, Shui Pin Wai Estate, Yau Lai Shopping Centre and Kwai Chung Estate.
- Since 2005/06, we have not received any noise abatement notices from the Government.

Waste Management

- We have been actively participating in the Government's Source Separation of Domestic Waste Programme across our PRH estates since 2005. In 2012/13, we achieved the targets with the achievements of collecting about 27 600 tonnes of waste paper, 1 930 tonnes of plastic bottles, 1 130 tonnes of aluminium and 1 000 tonnes of used clothes for recycling in our estates.
- The trial scheme on glass bottle recycling at six PRH estates was extended to cover 29 PRH estates in East Kowloon Region in October 2012.
- In 2012/13, we conducted trial schemes on food waste recycling in eight estates.



Promotion of recyclables collection

Organising Green Activities

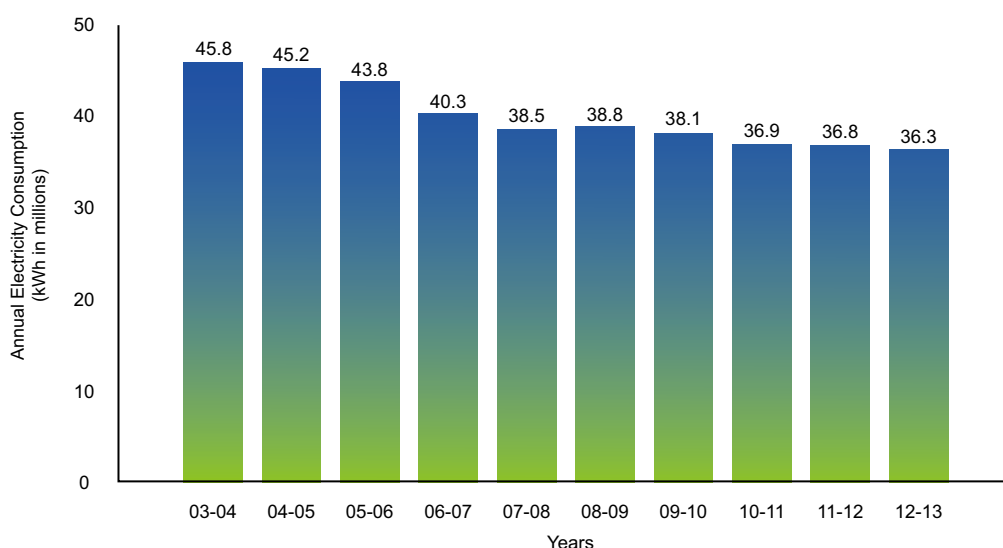
- We collaborated with the local Estate Management Advisory Committees (EMACs) to organise Estate Green Fun Days in 18 PRHs during the period of October 2012 to January 2013.
- We collaborated with the green groups to organise a series of environmental campaigns (e.g. “Food Waste Has Value” green recipe competition) in all estates and in-depth educational activities (e.g. fun fairs, workshops and site visits) in 30 estates under the Green Delight in Estates programme.



Initiatives in Office at Work

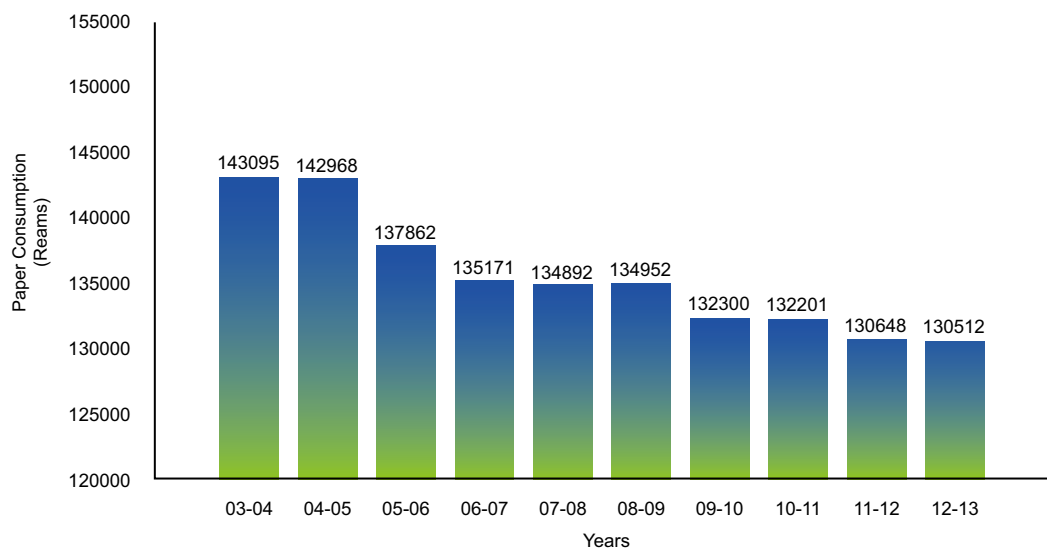
- Our Corporate Services Division has been implementing an EMS in accordance with the ISO 14001 standard since April 2013 for the provision of property management functions at the HA Headquarters (HAHQs).
- We have been carrying out carbon audits for five selected HA premises since August 2008.
- In 2012/13, our electricity consumption was 36 250 640 kWh, which was decreased by 5.9% as compared to our baseline consumption in 2007/08.

Annual Electricity Consumption in HA Offices



- We met our target and achieved a 3.2% reduction of paper consumption as compared to our baseline consumption in 2007/08.

Paper Consumption in HA Offices



- We achieved a collection of 42.7 kg of waste paper per staff, which exceeded our target of 20.7 kg.
- This year the water consumption at HAHQs was 11 830 cubic metres which was a 22.6% reduction against the consumption in 2007/08.
- We joined hands with the Community Recycling Coop of Industrial Relations Institute to hold two Environmental Collection and Recycling Campaigns and collected about four tonnes of reusable items including electrical appliances, books, household items, handbags, shoes, beddings and decorations, etc. for donation to the needy.



Director of Housing, Deputy Directors and Assistant Directors gave donation at HAHQs

- About 150 participants including members from our volunteer group, their families and tenants from six PRH estates joined the annual Hong Kong Tree Planting Day.



Our staff members, their families and our tenants participated in the Hong Kong Tree Planting Day

- Our floral display of “Home of Blossoms” won the Gold Award for Outstanding Exhibit (Landscape Display) in the annual Hong Kong Flower Show.



Our floral display “Home of Blossoms” in the Hong Kong Flower Show

Our Social Performance

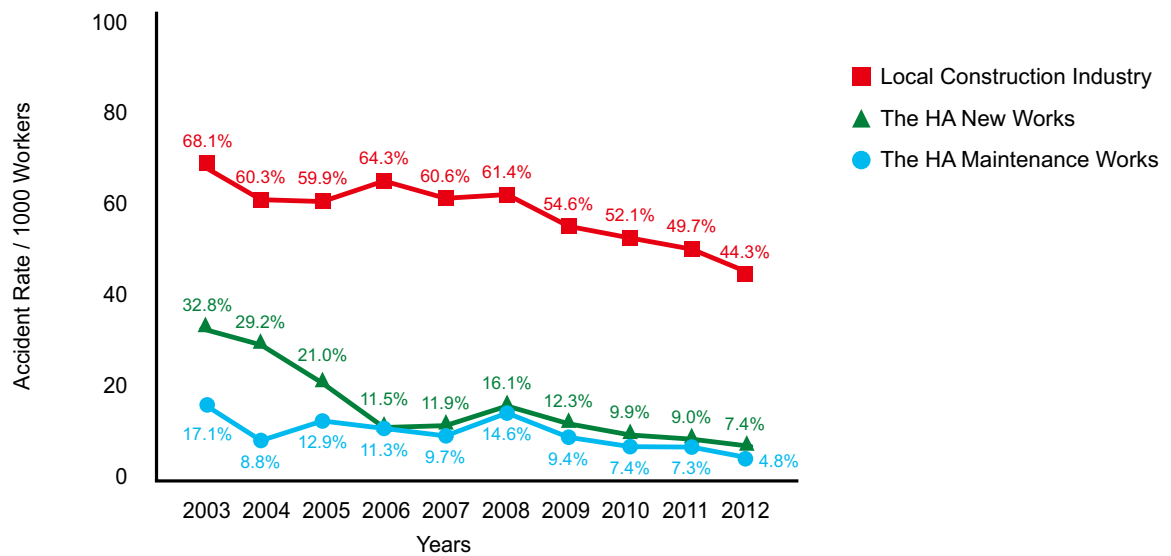
We set 16 social targets for 2012/13 including safety measures, marking scheme and encouraging staff participation. All of these targets were fully met. Our social performance during the year is highlighted below:

Initiatives in Planning and Construction of New Housing Estates

Safety

- The accident rate was 7.4 per 1 000 workers for new works contracts and 4.8 per 1 000 for maintenance works contracts in 2012. Both were well below the average Hong Kong industry accident rate of 44.3 per 1 000 workers.

Accident Rate per 1000 Workers Compared to Local Construction Industry Average



- To enhance safety awareness of workers and improve safety management system, we promulgated new specification clauses to introduce caring programme for the new workers in our new works contracts in March 2013.
- We implemented the revised Integrated Pay for Safety, Environment and Hygiene Scheme for new works contracts from the second quarter of 2012 onwards.
- In addition to enhancing our Safety Auditing System, we introduced our Lift and Escalator Nominated Sub-contracts Safety Auditing System, supplemented by the Surprise Safety Inspection Programme. Railing or fall arrest system is introduced along roof edges of footbridges, covered walkways and canopies to protect maintenance and cleansing personnel from falling from height.
- We continued to use the Performance Assessment Scoring System to monitor and measure the performance of our building, building services, piling, demolition and soft landscape contractors.
- We have conducted safety training, forum and seminars, updated our Site Safety website regularly and published the Practical Guide to Working at Height: Ensuring Safe Work Practices to enhance safety awareness and practice at construction sites.

Community Engagement

- During the planning and design stage of estates, we actively engage the community in the development process. New estates and common areas were planned and designed according to site character to foster their own identities.
- To provide comfortable living environment for our tenants, we strive to continuously improve the flat design with regard to environment-friendly materials, cost-effective construction methods, and caring features for users.



New polymer resin cooking bench with three adjustable heights

- We conducted a number of community engagement activities to present new development proposals to stakeholders and invite comments from audience to enhance the planning and design of the projects.



Community engagement workshop – PRH Development at Ex-Kwai Chung Police Married Quarters

- Last year, we surveyed 16 454 flats at nine estates and conducted more than 3 000 interviews to obtain feedback on newly finished buildings.

Initiatives in Existing Housing Estates

Safety

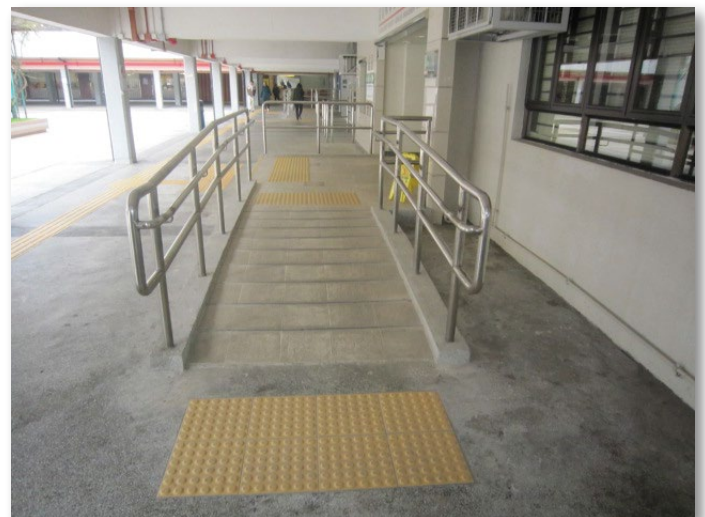
- Administrated by the Occupational Safety and Health Council, we launched the Housing Authority Safety Auditing System (Maintenance & Improvement) for five types of contracts in April 2012.
- To enhance PRH tenants' awareness of fire safety, our annual fire safety quiz was held in all estates for the eighth consecutive year, attracting a record number of 16 000 entries.
- We installed a retractable fall arrestor system to protect workers against unexpected falls when they are working in lift pits.



Fire safety education game booths

Care for the People

- We launched a series of “harmonious families” schemes for PRH tenants. There were more than 4 700 households participated in these schemes in 2012/13, with the total number of benefited households reaching 25 610.
- Out of the 35 projects under the lift addition programme which aims to install lifts in some older estates to enhance accessibility, 22 were completed in 2012/13. At other applicable estates, we continued to replace older lifts with new models in phases through lift modernisation work.
- We carried out enhancement works on pedestrian paths, access ways, and features to meet the special needs of individuals with disability.



Ramp for persons with disability

Estate Maintenance, Management and Services

- We rolled out the Total Maintenance Scheme (TMS) In-flat Inspection and Repair Programme in 30 estates in 2012/13.
- To ascertain the structural safety of the buildings for future planning, we completed the Comprehensive Structural Investigation Programme (CSIP) investigation works in three estates in 2012/13.
- We carried out the Estate Improvement Programme (EIP) in ten estates in 2012/13 and implemented necessary upgrading works to enhance tenants' living conditions.
- We completed the Closed Circuit Television (CCTV) surveillance system upgrading in 132 estates by the end of 2012/13.
- We released the General Specification 2013 to provide comprehensive guidance for contractors by incorporating the latest legislative requirements and industry standards.
- To enhance service standards of business partners, we continuously implement, monitor and review the Maintenance Assessment Scoring System in building maintenance and building services maintenance contracts.
- We regularly monitored and reviewed the Wage Monitoring System to enhance effectiveness in the implementation of wage payment to workers under works and services contracts.

Communication with Stakeholders

- In 2012/13, EMACs partnered with non-governmental organisations to deliver some 400 community building functions to promote neighbourliness in PRH estates.
- We organised various activities and public events to encourage interaction and experience sharing among fellow residents, such as health promotion activities, fall prevention roadshows and Volunteer for Seniors Day.



Volunteer for Seniors Day

Initiatives in Office at Work

Caring Organisation

- We received the “5 plus Consecutive Years Caring Organisation Logo” by the Hong Kong Council of Social Service for the seventh time in 2012/13.



We received the “5 plus Consecutive Years Caring Organisation Logo” from the Hong Kong Council of Social Service

Safety

- We completed about 350 office safety inspections in May 2012 to identify potential hazards at workplace.

- In 2012/13, 32 injury-on-duty cases related to the HA/HD employees were recorded. Our injury rate per 1 000 employees was 3.8, which is lower than the injury rate of 14.1 per 1 000 employees in all economic activities in Hong Kong in 2012. There was no fatal or occupational disease case reported during the year.
- During the year, we organised a wide range of internal occupational safety and health training courses and seminars in order to raise awareness and establish a “safety culture” across the HA.



Occupational safety and health awareness training for Total Maintenance Scheme Unit

Communication

- We welcome feedback and suggestions from staff, and maintain open communication channels through focus group meetings, goodwill visits, counseling, interviews, meetings, and gatherings with staff associations.
- During the year we received and answered about 1.54 million telephone calls, around 4 200 per day on average. For enquiries and requests made by email, letters and faxes, we received and handled around 39 400 enquiries and 182 complaints.
- Besides issuing 56 press releases and holding 29 press briefing sessions to facilitate our communication with a wide range of stakeholders, we responded to 920 direct enquiries from media and 631 public enquiries/complaints raised initially through media in 2012/13.
- In 2012/13, we hosted 100 visits to our HA Exhibition Centre and PRH estates and sites for the visitors from local community, the Mainland and overseas. In June 2012, we were honoured to welcome the then President of the People’s Republic of China Mr Hu Jin-tao at the Kai Ching Estate construction site.
- We have been planning a number of events and activities to commemorate the 60th anniversary of public housing development in Hong Kong.



Press briefing session

Staff Development and Engagement

- In 2012/13, we conducted 887 training courses (including internal and external seminars/workshops/training courses/visits) and a total of 36 563 trainees were involved.
- We continue to implement our Employee Wellness Programme to provide physical, emotional, social and occupational support to our staff.



Visit to Sha Tau Kok Farm

Our Economic Performance

We set four economic performance targets for 2012/13 including rent adjustment implementation, vacancy rate minimisation, tenancy abuse prevention and preventive maintenance, restoration and improvement. All of these targets were fully met. Our economic performance in this year is highlighted below:

Initiatives in Planning and Construction of New Housing Estates

Planning and Design

- In 2012/13, we constructed a total of 13 100 new PRH flats and completed 24 000 square metres of lettable floor area of retail facilities and 600 parking spaces for cars and commercial vehicles.
- We strive to meet our five-year production goal of 79 000 PRH flats beginning from 2012/13.



Fung Wo Estate

- We make concerted effort to meet the production target of some 17 000 Home Ownership Scheme (HOS) flats over the four years beginning from 2016/17.
- As endorsed by the Subsidised Housing Committee, the practices similar to previous HOS have been adopted for the sale of the remaining surplus HOS flats and will be adopted for the sale of those new HOS flats as well.
- We developed the latest 5-Dimensional Building Information Modelling to facilitate better project planning and design, and adopted the model in Sha Tin Area 52 Phase 1.

Procurement Practices

- We kept a close watch to the market cost trend and the adequacy of our project budgets.
- In 2012/13, we adopted the Integrated Procurement Approach for the Integrated Contract for Construction of PRH Development at Anderson Road Sites to encourage the adoption of unique and innovative design features.

Construction

- We have looked for opportunities to improve the building quality, such as reviewing the specification for building materials and building services materials and implementing product certification in stages for building materials and components.
- We have included the use of Radio Frequency Identification (RFID) in the specification for all new building contracts to track the workflow and logistics of four core building components. We have also been exploring the application of RFID in selected building services installations.



Use of RFID for timber doors identification

Initiatives in Existing Housing Estates

Optimising Resources Use

- As at the end of March 2013, the average waiting time was 2.7 years for Waiting List general applicants and 1.5 years for elderly one-person applicants.
- We carried out two exercises of the Territory-wide Overcrowding Relief Transfer Scheme in 2012/13. Around 520 families have benefited from the opportunity of moving into an accommodation that well meets the household size in the year, which reduced the number of “overcrowded” households to around 3 160 (0.45% of all PRH households) by the end of March 2013.
- A total of 1 180 families were relocated to larger flats by the end of March 2013 under the Living Space Improvement Transfer Scheme.
- We completed a review of the PRH rent in mid 2012 and the next review will be conducted in 2014.
- As at the end of March 2013, around 12 500 families were benefiting from our Rent Assistance Scheme.
- In 2012/13, the Public Housing Resources Management Sub-section performed in-depth investigations on about 8 700 occupancy-related cases to ensure rational allocation of limited public housing resources.
- We established a Redevelopment Potential Action Team in 2013 to conduct preliminary assessment on the development potential of the aged estates to optimise land resources through redevelopment.

Operation with Cost-effectiveness

- In addition to the CSIP aiming to ascertain the structural safety of the buildings, and the TMS and EIP to implement repairs and renovation works in estates, we also undertook improvement works in existing estates to meet the Barrier Free Access standards, replaced old lifts with modernised ones and upgraded the CCTV Security System.
- We procured external facility management services to supplement our in-house resources to manage the commercial premises in a more cost-effective manner.
- We conducted market re-ordering work in two estates involving grouping together some vacant shop stalls in the estates for leasing to single takers.
- We strengthened the leasing strategies and completed the tenants sourcing for the less popular retail premises in five estates.

- We launched a full range of festive and seasonal marketing programmes in our shopping centres to bring significant increase of footfall.



Festive and seasonal marketing programmes in our shopping centres

Initiatives in Office at Work

- As at 31 March 2013, the HA's available investment funds stood at HK\$68 989 million, which is a decrease by HK\$246 million as compared to 31 March 2012.
- During the year, the recurrent expenditure of the HA was HK\$13 427 million, which is 620 million higher than 2011/12.
- We have obtained ISO 20000 certification for the management of information technology (IT) services in April 2012 to benchmark ourselves to the best practices. We have also started to implement IT security management in compliance with the ISO 27001 IT security standard since April 2012.
- We utilised various IT solutions to help improve operational efficiency and customer experience such as launching the Phase II of the Enterprise Resource Planning system in October 2012, system development for the Customer Services Management System and exploring the use of e-tendering for service contracts.

Way Forward

We endeavour to meet our quantitative flat production target and enhance the sustainability of the local public housing. By setting challenging yet realistic environmental, social and economic targets annually, we strive to improve and monitor our sustainability performance and direct it towards sustainability excellence. In 2013/14, we have set 65 targets which are outlined as follows:

To promote sustainability issues

- We will launch a wide range of programmes to promote environmental awareness to our staff, construction partners, tenants and the community.
- We continue to conduct various initiatives to have active communication with our staff and our stakeholders to obtain feedback to enhance operational effectiveness.

To improve energy efficiency

- We continue to adopt the Building Energy Codes to design new building services installations and implement a number of electricity saving measures as well as conduct carbon audit.
- We continue to promote applications of more energy efficient equipment and green design for building services equipment, including conducting carbon emission estimation and energy estimation for projects with domestic blocks at detailed design stage.

To enhance greening and landscaping

- We will increase the greening areas in estates gradually by introducing green treatments in different areas; and organising green programmes or activities such as tree planting and hydro-seeding.
- We will incorporate various green and landscaping design into our housing development projects.

To conserve material usage and control hazardous materials

- We will enhance the use of “green” materials and components including the use of softwood timber from sustainable source.
- We continue to control hazardous materials, including asbestos abatement, to minimise harm to the environment.

To maintain our waste management practices

- We continue to facilitate and encourage more residents to separate their waste for recycling by implementing the Source Separation of Domestic Waste Programme in PRH estates.
- We will organise more publicity campaigns in estates to reduce domestic waste generation and increase recovery rate of paper, aluminium cans, plastic bottles, used clothes and glass bottles.

To reduce water consumption

- We will reduce flushing water consumption by reducing flushing volume of water-closets, as well as continue to conduct research on materials and standards and recommend way forward.
- We will reduce irrigation water consumption by providing rain water harvesting system in new public housing developments.

To uphold our social contribution

- We continue to implement the Marking Scheme for Estate Management Enforcement in all PRH estates and non-domestic premises to enhance the living and business environments.
- We continue to actively communicate with the stakeholders to promote better understanding of our policies and initiatives.

To lessen site safety risk

- We continue to tighten monitoring of contractors with high accident rates as well as the control measures for high-risk operations on site through procurement strategy, performance monitoring mechanism and contractual requirements to improve the safety of operations which are associated with potential health and safety risks.
- We continue to raise site safety awareness through stakeholders' engagement, training and promotion events.

To enhance our economic performance

- We continue to minimise the vacancy of PRH estates as well as carry out tenancy control and education campaign to combat tenancy abuse.
- We will conduct the assessment of the conditions of old estates to enhance their preventive maintenance and restoration.

Message from the Chairman



Welcome to our eighth Sustainability Report, *Quest for Excellence in Low Carbon Housing*. I am pleased to present our initiatives and achievements on the planning, design, construction, management and maintenance of a sustainable public housing programme to provide affordable housing to low-income families in Hong Kong.

To support the government's commitment to reducing energy consumption, we have introduced and launched a number of novel as well as practical low-carbon and energy saving initiatives in our new public housing estates. These initiatives include the installation of grid-connected photovoltaic systems and solar and wind energy installations to generate electricity for use in common areas of our estates. We have also adopted Light Emitting Diode (LED) lighting systems and a two-level lighting system for general illumination.



We have developed our own Carbon Emission Estimation model and applied it to 19 new design projects. This has enabled us to predict and benchmark the carbon emission levels throughout the project life cycle and to set achievable targets for improvement. During the year, we received energy certificates for 85 buildings: a clear demonstration of our commitment to achieving energy saving in all our buildings. Our ex-Yuen Long Estate public rental housing project was one of the first projects in Hong Kong to obtain "Provisional Platinum" rating under BEAM Plus Version 1.2 for passive design in March 2013.

As a forward-looking public sector developer, we are the first organisation in Hong Kong to obtain ISO 50001 Energy Management System (EnMS) certification for the design of all residential buildings in new housing estates. Such system provides a systematic approach to strengthen and improve our energy management and performance in the design of communal building services installations in domestic buildings. We have obtained ISO 50001 certification for Kwai Shing West Estate, the first residential estate and the first public rental housing estate in Hong Kong to attain such certification. We are now planning to implement ISO 50001 EnMS and obtain certification for all public rental housing estates

in the coming two years. To cascade this approach through the supply chain, we will also require some of our listed construction contractors to obtain ISO 50001 certification as well.

Our public rental housing and subsidised home ownership housing provide homes for nearly 50% of Hong Kong's population. Developing and upholding a sustainable living environment for our tenants is the vision and mission of all of us at the Hong Kong Housing Authority and the Housing Department. I am proud of the on-going efforts to ensure the sustainability of our housing programme, and would like to take this opportunity to thank all concerned for their hard work and dedication.

Professor Anthony Cheung Bing-leung, GBS, JP
Chairman, The Hong Kong Housing Authority
30 December 2013

About This Report

- Report Scope
- Criteria
- What's New
- GRI Content Index



The eighth Sustainability Report published by the Hong Kong Housing Authority (HA), ***Quest for Excellence in Low Carbon Housing***, details HA's key sustainability commitments and performance in terms of economic, environmental and social aspects. This Report clearly presents our governance structure, management approaches, initiatives, operations and activities. It also summarises HA's performance and future plans in maintaining and providing local public housing programme in a sustainable manner for Hong Kong.

Report Scope

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This Report covers all the HA's activities and operations with no specific limitations on the report scope. Data and statistics presented as absolute figures have been normalised into comparable terms as far as practicable.

Criteria

This Report has been prepared with reference to the internationally recognised [Global Reporting Initiatives \(GRI\) G3.1 Guidelines](#) to achieve the A+ application level. The GRI Content Index at the end of this chapter illustrates how all the sections in this Report link to the relevant GRI indicators.

Besides the GRI G3.1 Guidelines, we collect and consider stakeholders' views, suggestions and expectations during the report preparation to address their concerns. Through our daily operations and communications, a number of key stakeholders groups, including our tenants, business partners, green groups, media, our staff members, government colleagues, non-governmental organisations and the public have been identified.

We welcome stakeholder's comments on our operations, activities, sustainability performance and reporting process. [A feedback form](#) is enclosed in this Report to collect readers' valuable views and comments for our improvement.

We received a number of comments on our last year's Sustainability Report. In general, the feedback was positive with regard to the usefulness of information and presentation style of the Report. Specifically, some of the respondents would like to see more information of our water conservation targets and control of indoor air quality and noise related operations in our report. We have enhanced the content of the concerned topics in this Report where appropriate.

To assure the completeness, accuracy, reliability and creditability of our report, we have engaged an independent party to verify the claims and data quoted in the Report. The [Verification Statement](#) with verifier's opinions and views on the Report is presented in the latter chapter.

What's New

During the reporting period, there was no significant change in the size, structure, scope of work and ownership of the HA. There were no joint ventures or subsidiaries operated by the HA. There is no restatement of information and data provided in our earlier sustainability reports herein.

GRI Content Index

Corresponding GRI indicators denoted in each section are tabulated below.

Content	GRI Indicators addressed in the report	Remarks
Message from the Chairman	1.1	
1. About This Report	2.1	
– Report Scope	3.1, 3.2, 3.3, 3.6, 3.7, 3.9, 3.11	1
– Criteria	3.5, 3.13, 4.14, 4.15	
– What's New	2.9, 3.8, 3.10, 3.11	1
– GRI Content Index	3.12, 4.3, EC2, EN16, EN17, EN19, EN20, EN23, LA5, HR1, HR2, HR4, PR9	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13

Content	GRI Indicators addressed in the report	Remarks
2. About the Hong Kong Housing Authority	2.5, 2.6, 2.7	
– Our Vision, Mission and Core Values	4.8, EC DMA, EN DMA, SO DMA, PR DMA	
– Our Role and Services	2.2, 2.7, 2.8, 4.12, 4.13	
– Human Resources	4.5, 4.6, 4.7, 4.10, EC3, EC7, HR DMA, HR5, HR6, HR7, LA DMA, LA1, LA2, LA4, LA10, LA12, LA14, SO2, SO3, SO4	
– Significant Aspects	1.2, 4.9, 4.11, PR1	
– Governance Structure and Management	2.3, 4.1, 4.2, 4.7, EN DMA, EC6, LA13	14
3. Environmental Performance	4.16, EN DMA, EN1, EN2, EN3, EN4, EN5, EN6, EN7, EN8, EN11, EN12, EN18, EN21, EN22, EN26, EN27, EN28, PR3, SO9, SO10	15
4. Social Performance	4.4, 4.16, 4.17, SO DMA, SO1, SO5, SO8, SO9, SO10, LA DMA, LA7, LA8, PR DMA, PR1	16
5. Economic Performance	2.8, EC DMA, EC1, EC4, EC8, SO1, SO9, SO10, PR3, PR6	
6. Case Studies	EN5, EN6, EN7, EN26	
7. List of Awards and Community Recognitions	2.10	
8. Previous Targets	EC DMA, EN DMA, LA DMA, SO DMA	
9. Targets and Outlook	EC DMA, EN DMA, LA DMA, SO DMA	
10. Verification Statement	3.13	
11. Feedback	2.4, 3.4	

Remarks:

1. 3.2, 3.3 and 3.11 – We publish our sustainability reports annually and the last report was published in December 2012. During the reporting period, there was no significant change in the scope, boundary and measurement methods from previous reports.
2. 4.3 – We do not adopt unitary board structure. All our members are appointed by the Chief Executive.
3. EC2 – No mechanism to separately capture total environmental expenditure in 2012/13, particularly related to reduction of greenhouse gas emissions. We would consider providing information in future reports by mid-term.
4. EN16 – No full measurement mechanism is in place but we have obtained some data of the direct and indirect greenhouse gas emissions and we will consider providing information in future reports by mid-term.
5. EN17 – No full measurement mechanism is in place but we have obtained some data of the indirect greenhouse gas emissions and we will consider providing information in future reports by mid-term.
6. EN19 – Materials specified for use in building services installations such as refrigerants and fire-extinguishing agents shall comply with the Ozone Layer Protection Ordinance.
7. EN20 – No measurement mechanism is in place but we do not generate significant NOx, SOx emissions.
8. EN23 – No record of significant spillage in our construction sites/estates.
9. LA5 – Following HA's internal circulars, no minimum notice period is required. But staff are informed and consulted regarding significant changes beforehand, and notices are issued as soon as possible.
10. HR1 – Significant investment agreements and contracts do not include clauses incorporating human rights or undergo human rights screening. We will consider providing information in future reports.
11. HR2 – No measurement mechanism in place as it is not a formal practice in local public agency, but hiring of illegal immigrants is prohibited under statute, and we award projects only to contractors with no criminal record in hiring illegal immigrants. All significant suppliers and contractors are closely monitored on their convictions of employing illegal immigrants and incidents on wage disputes.
12. HR4 – No incidents of discrimination was recorded in 2012/13.
13. PR9 – No record of significant fines for non-compliance with product responsibility.
14. EC6 – No mechanism to separately capture the proportion of spending on locally-based suppliers in 2012/13. We would consider to provide information in future reports by mid-term.
15. EN21 – HA discharges domestic sewage to foul sewers generated from its office operations and estate management activities.
16. LA7 – No measurement mechanism in place to collect the data of the rates of injury broken down by gender. We will consider to provide information in future reports.

About the Hong Kong Housing Authority

- Our Vision, Mission and Core Values
- Our Role and Services
- Human Resources
- Significant Aspects
- Governance Structure and Management



The Hong Kong Housing Authority (HA) is a statutory body established in April 1973 under the Housing Ordinance (Chapter 283). It supports the Transport and Housing Bureau with the Housing Department (HD) acting as the executive arm. The HA is responsible for the development and implementation of the local public housing programme.

Our Vision, Mission and Core Values

Our Vision

To help low-income families with housing need gain access to affordable housing.

Our Mission

- To provide affordable quality housing, management, maintenance and other housing related services to meet the needs of our customers in a proactive and caring manner;
- To ensure cost-effective and rational use of public resources in service delivery and allocation of housing assistance in an open and equitable manner;
- To maintain a competent, dedicated and performance-oriented team.

Our Core Values



While striving to provide quality public housing that is safe, affordable, people-oriented and environment-friendly, we also endeavour to incorporate other sustainability considerations in planning and implementing our housing development and management programme. For instance, we have made every effort to optimise our available resources for public housing production and enhance construction safety to protect the well-being of our business partners and the general public.

Our strategies and priorities on various sustainability aspects are well defined and highlighted below:

Our Strategy for Sustainable Housing

To achieve sustainable development in public housing which balances environment, social and economic needs with a view to attaining healthy living, sustainable construction and enhancement of the total urban environment.

Our Priority in Environmental Sustainability

The HA is committed to properly managing and reducing consumption of resources in our daily operations, especially in relation to waste reduction and energy use. We are also committed to introducing environment-friendly methods to further reduce overall environmental impacts arising from our planning, development, management and maintenance operations.

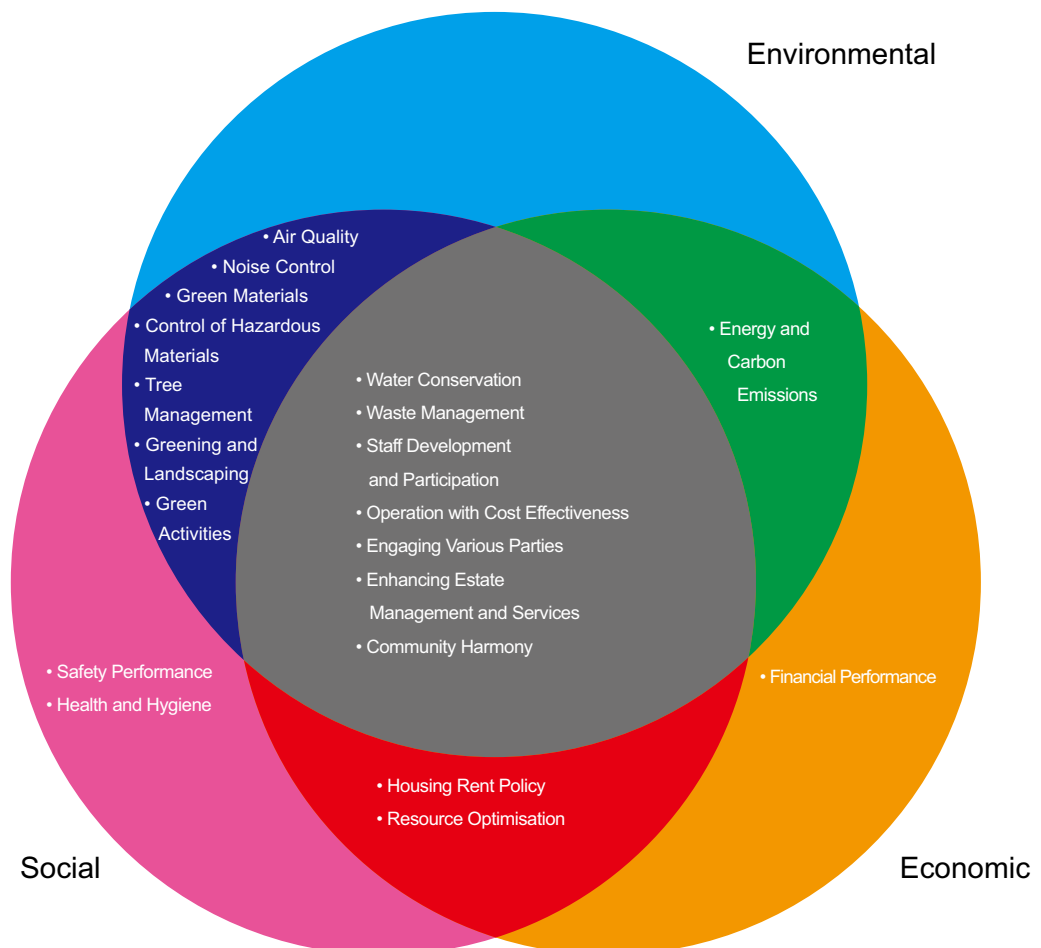
Our Priority in Social Sustainability

Corporate Social Responsibility has already become an integral part of our corporate policy and daily work. The HA prioritised public housing to those who are in need. We are committed to providing a safe, hygienic and affordable living environment to our tenants making public housing estates a better and comfortable place to live in. We also seek to become a role model in providing a safe and healthy working environment for our business partners who are involved with public housing development and management services. We endeavour to enhance social cohesion, foster the well-being of society as a whole, and encourage Corporate Social Responsibility along the supply chain.

Our Priority in Economic Sustainability

The HA is committed to adopting cost-effective and economically-viable approaches in all aspects of our public housing programme. These can be achieved through a number of measures, including optimisation of the HA's resources, prevention of the abuses of public housing and extension of the useful life of our existing buildings.

The HA's operations in relation to the sustainability aspects are grouped and depicted as below:



To gauge the building sustainability performance of the existing public rental housing (PRH) estates, HA has enrolled the Hong Kong Quality Assurance Agency Sustainable Building Index (SBI) Scheme for three pilot estates. The sustainability performance of all the 11 PRH blocks of these estates was found above the norm and the HA became the first organisation awarded with the SBI Verified Mark in Hong Kong. In the coming two years, the HA will strategically select more estates which cover the majority of the block type designs for enrollment to the SBI Scheme, so as to gauge the sustainability performance of different block types and to analyse the results for formulation of long-term maintenance and improvement strategies.

Our Role and Services

The HA plans, designs, builds, manages and maintains different types of public housing, including rental housing estates, interim housing estates, and transit centres. In addition, the HA owns and operates some flatted factories and ancillary commercial and other non-domestic facilities. The HA also supports the Government's policy in providing subsidised home ownership flats to qualified persons.

The HA plays an advisory role to provide professional advice on various public housing issues to the government, while the HD is the executive arm to realise our public housing programme. We maintain close working relationships with all other relevant government departments when dealing with local public housing matters.

We actively support community voluntary initiatives to demonstrate our commitment to sustainable development. During the year, we participated in green activities held by green groups and other government departments, such as the Hong Kong Flower Show and Green Carnival.

Housing Stock and Production

As at the end of March 2013, we are providing accommodation to over two million people who live in nearly 728 000 PRH units in more than 160 PRH estates across Hong Kong.

In 2012/13, we met our target for the year and completed construction of around 13 100 PRH flats. A total of seven projects were completed including Cheung Sha Wan Estate, Lung Yat Estate, Lower Ngau Tau Kok Estate, Kai Ching Estate (Phases 1 and 2), Mei Tin Estate (Phase 4) and Fung Wo Estate. In response to the pressing needs for PRH in the community, our Public Housing Construction Programme was adjusted to supply from around 75 000 PRH flats to 79 000 flats over the five-year period, starting from 2012/13.



Cheung Sha Wan Estate



Lung Yat Estate



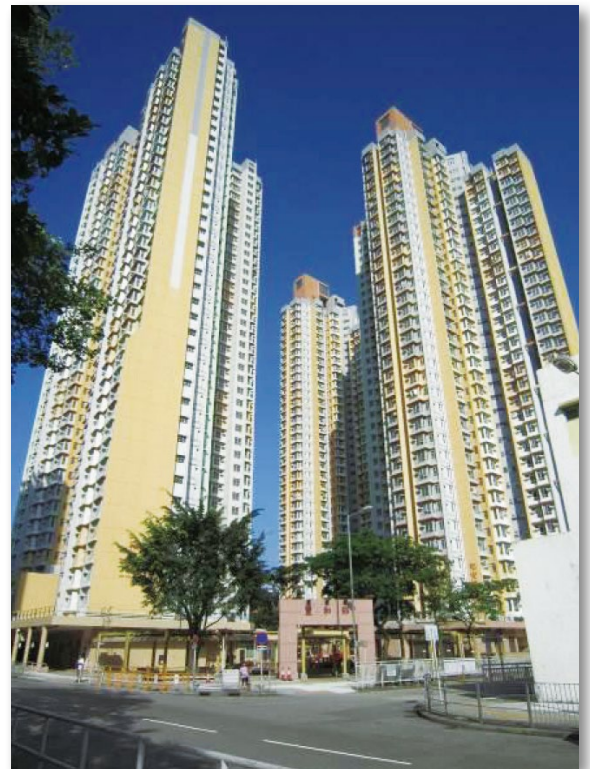
Lower Ngau Tau Kok Estate



Kai Ching Estate (Phases 1 and 2)



Mei Tin Estate (Phase 4)



Fung Wo Estate

Infrastructure

By the end of March 2013, we have awarded two foundation contracts and 10 new building contracts.

We always strive for user-friendliness and environment-friendliness in our public housing development. We therefore include associated infrastructure facilities such as footbridges, landscape areas, car parks, public transport interchanges, community facilities, social welfare facilities, educational facilities and commercial facilities as far as practicable when planning, designing and developing our public housing. These facilities are located in, or adjacent to, one or more public housing development in order to provide a sustainable living environment for our tenants.

Commercial Properties

In 2012/13, we completed 24 000 square metres of lettable floor area of retail facilities including Domain and other shop premises attaching to new estates, and 600 parking spaces for cars and commercial vehicles. As at the end of March 2013, our total non-domestic stock includes:

- around 198 000 square metres of commercial and retail space
- around 28 000 car parking spaces
- around 202 000 square metres of factory premises
- around 2 121 000 square metres of community, education and welfare facilities
- around 388 000 square metres of other space, used for miscellaneous purposes

Human Resources

Staff Resources

As at the end of March 2013, we had 8 531 staff, including 7 809 civil servants and 722 contract staff, representing a slight increase of 1.5% from the previous year.

Total workforce (as at 31 March 2013)

Total number of staff	8 531
Breakdown by employment type	Civil Servants: 7 809 Contract Staff: 722
Breakdown by strength	Directorate Staff: 51 Professional Staff: 763 General Staff: 5 046 Site Staff: 1 580 Technical Staff: 1 091
Breakdown by employment contract	Full-time: 8 531 Part-time: 0
Breakdown by gender	Male: 5 464 (64.0%) Female: 3 067 (36.0%)
Breakdown by age	Age 20-29: 399 (4.7%) Age 30-39: 1 549 (18.1%) Age 40-49: 2 618 (30.7%) Age 50-59: 3 872 (45.4%) Age 60 or above: 93 (1.1%)

New employee hires and employee turnover

	Male	Female
New employee hires ^[1]		
Age 20-29:	37	50
Age 30-39:	16	35
Age 40-49:	5	3
Age 50-59:	10	0
Age 60 or above:	0	0
Employee turnover ^[2]		
Age 20-29:	10	4
Age 30-39:	26	23
Age 40-49:	13	21
Age 50-59:	50	35
Age 60 or above:	156	14

[1] The above figures involve staff (position as at 31.3.2013) with their 1st appointment date falling within the period from 1.4.2012 to 31.3.2013.

[2] The staff turnover figures exclude those General/Common Grades' staff on inter-department transfer.

Training

Throughout the reporting year, we conducted 887 training courses (including internal and external seminars/workshops/training courses/visits) and a total of 36 563 trainees were involved.

Training Hours Breakdown

	No. of staff	No. of staff attended training	Training hours received (hours)	Training hours per staff (hours)
By Strength				
Directorate Staff	51	50	1 469	29
Professional and Technical Staff	1 854	1 800	60 670	33
General and Site Staff	6 626	5 965	168 475	25
By Gender				
Male	5 464	5 049	156 576	29
Female	3 067	2 766	74 038	24
Training Regarding Human Rights				
Training on policies and procedures concerning aspects of human rights	8 531	184	683	0.08

Retention after Parental Leave

Number of employees completed parental leaves during 2012/13	166
Number of employees leaving the service after parental leave ended	4
Number of employees returning to work after parental leave	162
Retention rate after parental leave	97.6%

Injury

Number of staff injury cases ^[3]	32
Staff sick leave granted for staff injury cases ^[4]	913.5 days

[3] The definition of staff injury cases is the reported cases of occupational injuries, under Employee's Compensation Ordinance, resulting in death or incapacity for work over 3 days.

[4] The number includes sick leave days granted in 2012/13 but enjoyed in 2013/14 (up to 30.9.2013).

In 2012/13, we recruited 156 new staff, both to civil service posts and on a contract basis and converted 40 contract staff posts into civil service positions. To retain professionals of high calibre, we adopt regular employment terms and offer continuous contracts to our contract staff to enhance their job security and sense of belonging. Since 2008, we have introduced the Multi-faceted Manpower Strategy to resolve management and staff issues owing to different employment conditions of civil service and contract staff. The strategy enables us to adjust staffing intake to suit our business operations and offer staff benefits including clear promotion and career opportunities and greater job security.

Staff Appointment, Remuneration and Benefits

We strictly follow requirements stipulated in the Basic Law for our staff appointment. According to Article 99 of the Basic Law, new recruits to the Civil Service on or after 1 July 1997 must be permanent local residents. All senior officers in the HD (at D2 rank and above) are permanent Hong Kong residents. They are civil servants and their appointments are governed by the Civil Service Regulations and subject to the approval of the Public Service Commission.

Depending on the terms of employment and job grades, our staff's remuneration follows either the civil service pay scales or contract pay band. The remuneration will be adjusted annually based on the respective annual pay adjustment exercises and staff performance. In general, civil servants may receive one increment annually in their respective rank scales and the contract staff may also be granted a one-off merit payment annually based on their performance which would be assessed through a stringent 3-tier performance appraisal system to ensure a fair and comprehensive review on individual's performance.

Our staff members enjoy various fringe benefits with respect to their rank levels and terms of employment. These benefits include medical and dental treatment, housing benefits, annual leaves, retirement benefits, passage and education allowances.

Staff Integrity

High standards of staff integrity and conduct are important in planning and managing the territory-wide public housing programme. We strictly follow the Government and departmental guidelines including those provided by Civil Service Bureau and our departmental staff circulars which stipulate the internal guidelines and requirements for the declaration of private investments, avoidance of conflict of interest, and acceptance of advantages and benefits.

We also adhere to internal circulars to deal with attempted bribe, allegations of corruption and Independent Commission Against Corruption's (ICAC) referrals. In order to enhance staff awareness, we have arranged briefings on anti-corruption to all new recruits as part of their induction programme and integrity reinforcement seminars for existing staff. In 2012/13, over 2 900 staff attended various anti-corruption courses. We are fully committed to complying with all anti-corruption legislation. There was no conviction case reported during the year.

Human Rights

People are our most valuable asset. We provide equal opportunities and fair treatment in terms of remuneration, fringe benefits, promotion and compensation to all our staff without discriminating individual's gender, ethnicity, age and physical abilities. We comply with all the employment related legislation including prohibition of child labour and forced labour.

We believe close relationship and open communication between the management and staff members are essential to establish a dynamic and committed workforce. Our staff members have the freedom to join staff associations and working groups. In 2012/13, there were a total of 33 staff associations or working groups and five Departmental Consultative Committees in the HD. Together with our bi-weekly publication the "Housing Dimensions" and our periodic publication "Development and Construction Division (DCD) Newsletter", we have maintained effective communication channels with staff to exchange views and enhance transparency on departmental initiatives of mutual concern.

Significant Aspects

Our activities, mainly building construction, estate management and maintenance, will inevitably impact on the community in the aspects of environment, health, safety and society. By adopting the systematic "plan-do-check-act" approach, we have introduced a series of initiatives for achieving sustainability in the environmental, social and economic aspects to avoid, minimise, manage and control potential risks arising from our daily operations proactively. To provide timely and effective responses to meet the ever-changing housing needs, our senior management has frequently reviewed public and stakeholders' concerns through internal management meetings and customer satisfaction surveys.

The major potential sustainability aspects related to our operations are identified and tabulated below:

	Office Operation	Management and Maintenance of PRH	Construction Work	Demolition Work
Significant Environmental Aspects				
Air Quality	✓	✓	✓	✓
Control of Hazardous Materials	✓	✓	✓	✓
Energy and Carbon Emissions	✓	✓	✓	✓
Green Activities	✓	✓	✓	✓
Green Materials	✓	✓	✓	
Greening and Landscaping	✓	✓	✓	
Noise Control		✓	✓	✓
Tree Management		✓	✓	
Waste Management (including food waste)	✓	✓	✓	✓
Water Conservation	✓	✓	✓	
Significant Social Aspects				
Engaging Various Parties	✓	✓	✓	✓
Enhancing Estate Management and Services		✓		
Health and Hygiene	✓	✓	✓	✓
Safety Performance	✓	✓	✓	✓
Staff Development and Participation	✓			
Community Harmony	✓	✓	✓	✓
Significant Economic Aspects				
Financial Performance	✓	✓	✓	✓
Housing Rent Policy		✓		
Operation with Cost-Effectiveness	✓	✓	✓	✓
Resources Optimisation	✓	✓	✓	✓

Governance Structure and Management

Our Governance Structure

Apart from the Chairman and Vice-chairman, the HA has two official members and 26 non-official members. Appointments are made by the Chief Executive. All non-official members are appointed ad personam. The Secretary for Transport and Housing assumes the office of Chairman of the HA, while the Director of Housing assumes that of Vice-chairman.

Breakdown of non-official HA members by age group and gender:

Breakdown of non-official HA members	Male	Female
Age 40-49:	2 (8%)	2 (8%)
Age 50-59:	12 (46%)	5 (19%)
Age 60 or above:	4 (15%)	1 (4%)

Six standing committees have been formed under the HA to formulate, administer and oversee policies in specified areas including building, commercial properties, finance, strategic planning, subsidised housing and tenders. Sub-committees and ad hoc committees will be set up when necessary. Details of our governance structure and the terms of reference of respective committees are provided in our [website](#).

Breakdown of non-official Committees and Sub-committees members by age group and gender:

Breakdown of non-official Committees and Sub-committees members	Male	Female
Age 30-39:	4 (12.1%)	0
Age 40-49:	4 (12.1%)	3 (9.1%)
Age 50-59:	9 (27.3%)	5 (15.2%)
Age 60 or above	8 (24.2%)	0

The HD acts as the HA's executive arm and assists in the implementation of housing related policies. The HD is headed by the Permanent Secretary for Transport and Housing (Housing) who also assumes the office of the Director of Housing. The HD has four operation divisions, namely Strategy, Development & Construction, Estate Management and Corporate Services to support the implementation of HA's policies in housing strategies, overall housing development, construction and estate management. The HD's organisation can be found in our [website](#).

The Housing Department Environmental, Health and Safety Committee (HDEHSC) is responsible for the development and formulation of policy direction on environmental, health, safety (EHS) and sustainability aspects within the HD. It is further supported by the following three sub-committees to address different sustainability issues:

- The Housing Department Environmental Sub-committee – assists the HDEHSC in overseeing the progress and performance of environmental initiatives and action plans in the Department.
- The Housing Department Occupational Safety and Health Sub-committee – assists the HDEHSC in overseeing the occupational safety and health of the employees at their workplace.
- The Housing Department Site Safety Sub-committee – assists the HDEHSC in overseeing site safety management measures for works contracts.

Our Management Approaches

Our management has established and endorsed policies in specific areas to govern the operations and define framework for continuous improvement. Aiming to provide a clear direction on our sustainability commitment and approach, these policies both at departmental level and divisional level have been widely communicated to and fully supported by our staff, services providers, materials suppliers and contractors.

Policies at Departmental Level

Environmental Policy

The Housing Authority is committed to continually improving the environmental standards in the provision of public housing and related services. In achieving this objective, the Housing Authority has adopted the following environmental principles:

- To promote healthy living and a green environment;
- To develop a strategic framework and implement environmental management for the promotion of sustainable development;
- To strictly comply with and fully implement all relevant environmental legislation and regulations;
- To address environmental concerns and incorporate environmental initiatives in planning and design, construction and demolition, marketing and estate management activities;
- To minimise environmental impacts (air, dust, noise, waste and water) to residents and public from the Housing Authority's operations;
- To develop procurement policies to minimise the use of resources and achieve cost effectiveness;
- To promote environmental awareness and participation among staff, residents and contractors through education and publicity programmes; and
- To review and seek continual improvement on the implementation of an environmental management system.

Safety and Health Policy

The Hong Kong Housing Authority (HA) fully recognises safety and health at work as an integral part of our activities. HA is dedicated to provide and maintain a safe and healthy working environment for all of our staff.

HA is committed to maintaining a climate of safety awareness and developing guidelines and a health and safety management system that leads to continuous improvement in occupational safety and health performance. All employees are required to assume responsibility for assuring their own safety by conforming to the policy, observing all statutory requirements and guidelines that are related to their works.

To achieve the objective of safety and health at work, HA has adopted the following principles:

- To provide and maintain working conditions, equipment and work systems for our staff consistent with good practices of occupational safety and health;
- To develop a strategic framework and implement safety management system for the promotion of safety and health at work;
- To ensure compliance with all relevant health and safety legislation as the minimum requirement;
- To take appropriate measures to eliminate safety and health hazards in our operations, and where this is not reasonably practicable, to devise procedures and guidelines to reduce such hazards to an acceptable level;
- To provide staff with training and supervision as required to achieve the objective of creating a safe and health working environment; and
- To pursue continual improvement in occupational safety and health by regularly reviewing our performance.

The policy and the overall safety management system will be regularly monitored and reviewed to ensure that the above objectives are achieved.

We have developed an Environmentally Responsible Procurement Policy to provide guidelines regarding product and service procurement. All staff members are advised to follow the Policy and are encouraged to use green products and services where practicable and economically viable.

We work and communicate closely with our contractors and material suppliers to ensure that they fully understand our sustainability requirements. We check their performance and compliance status regularly by means of a robust and effective monitoring system. We strictly follow the Government Procurement Agreement of the World Trade Organisation and the HA's procurement policies and instructions during our procurement. We offer equal opportunities without prejudice to material suppliers to assure a fair, open, equitable and ethical purchasing process.

Environmentally Responsible Procurement Policy

The Environmentally Responsible Procurement Policy for contractors, suppliers and service providers is as follows:

According to Hong Kong Housing Authority Environmental Policy, HA is committed to minimise the use of resource and achieve cost effectiveness in its operation. This policy is developed to fulfill this commitment by:

- Identifying the significant environmental impacts of materials and services in use;
- Purchasing materials, goods and services to specifications that are compliant with relevant environmental legislation, and include environmental considerations so that, if technically acceptable and economically viable, lower environmental impact goods and services are purchased;
- Assessing the environmental commitment of suppliers, contractors and service suppliers as part of the tender evaluation process, and rewarding the best environmental performers. Paying for environment to demand for higher environmental performance;
- As appropriate to the scale and or nature of the work requiring contractors and service providers to produce project environmental management plans (EMPs) within their bids for work;
- Regularly evaluating evidence supplied by contractors and service providers towards implementation of their environmental management plan as part of our ongoing supervision of works;
- Providing feedback, advice and facilitate training to key suppliers, contractors and service providers on environmental performance and improvement opportunities;
- Ensuring that all HA staff, HA suppliers, contractors and service providers are aware of, and act in accordance with, HA environmental procurement policy and contribute to HA's environmental objectives; and
- Establishing systems, targets and action plans for effective environmental procurement and regular reports on performance.

Policies at Divisional Level

To further enhance the department's existing environmental practices, the DCD obtained ISO 14001 Environmental Management System (EMS) certification in June 2009. The Estate Management Division (EMD) has been implementing the ISO 14001 EMS for planned maintenance and improvement works for all existing estates and property management for three pilot estates since September 2010 and obtained certification in May 2011. In addition, the EMD has extended and implemented the ISO 14001 EMS in another 90 estates and achieved certification in January 2013.

The Corporate Services Division has developed the EMS in accordance with ISO 14001 requirements and started to implement the EMS since 1 April 2013. The Independent Checking Unit is also preparing for ISO 14001 certification in 2014. With the EMS in place, individual divisions can better manage significant environmental aspects in relation to their operations, activities and services in a systematic and holistic manner.

Both the DCD and EMD have adopted the divisional social responsibility policy in accordance with ISO 26000 standard. This policy has been developed with reference to the HA's Vision, Mission and Core Values to provide framework on management of the divisional social issues.

Social Responsibility Policy

We recognise social responsibility as an integral part of our long established caring value. Social responsibility is the way we have done and will continue in our approaches and practices. We affirm our commitment in adopting and practising the following principles of social responsibility:

- Be accountable for our impacts on society and the environment;
- Be transparent in our decisions and activities that impact on society and the environment;
- Be ethical in terms of honesty, equity and integrity;
- Be conscious of and respect the interests of our stakeholders and respond to their expressed concerns;
- Be respectful to the rule of law and international norms of behaviour for environmental or social safeguards; and
- Be respectful and supportive to human rights with particular regard to discrimination, grievance resolution, and rights at work.

To reinforce energy efficiency enhancement in residential building design, the DCD has developed and rolled out an energy management system (EnMS) according to ISO 50001 standard in December 2011, and obtained external certification in June 2012. For the EMD, Kwai Shing West Estate is planned to obtain the ISO 50001 certification in mid-2013.

The energy policies of the DCD and EMD underpinning their energy management commitment are provided below.

Energy Policy in DCD

In moving towards our goal of sustainable operations in meeting the customer and community expectations, DCD recognises the importance of energy management in the provision of affordable quality housing. To this end, we affirm our commitment to:

- continual improvement in energy performance;
- ensure the availability of information and necessary resources to achieve objectives and targets; and
- comply with applicable legal requirements and other requirements to which we subscribe that relate to our energy use, consumption and efficiency.

In addition, we support the purchase of energy-efficient products and services, and the design for energy performance improvement.

Energy Policy in EMD

EMD is committed to continually improving the energy performance standards in the areas of facility management and improvement works of public rental housing (PRH) domestic blocks. To achieve this objective, the top management of EMD affirms the following commitments:

- To regularly review and seek for continual improvement in energy performance;
- To ensure the availability of information and necessary resources to achieve objectives and targets;
- To comply with applicable legal requirements and other requirements to which we subscribe related to our energy use, consumption and efficiency;
- To provide the framework for setting and reviewing energy objectives and targets; and
- To support the purchase of energy-efficient products, services, and design for energy performance improvement.

Environmental Performance

- Initiatives in Planning and Construction of New Housing Estates
- Initiatives in Existing Housing Estates
- Initiatives in Office at Work



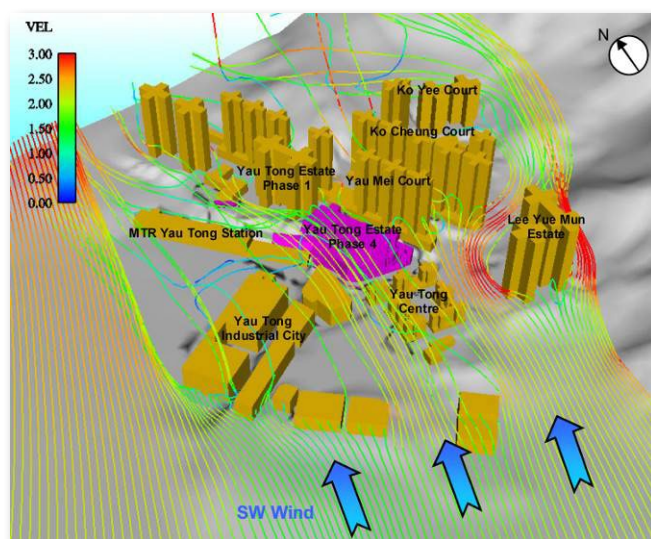
Initiatives in Planning and Construction of New Housing Estates

Environmentally Responsible Planning and Design

Micro-climate Studies

Starting from 2004, we have been conducting micro-climate studies during the planning and design stages in order to identify the best options for our development projects. By adopting advanced computer simulation models with the application of computational fluid dynamics, local climate features of the development, including wind environment, natural ventilation, natural daylight, solar heat gain and pollution dispersion, etc. are taken into account in our project designs.

Through conducting micro-climate studies according to the characteristics of the site, we can provide greater human comfort for our tenants by enhancing environmental performance of our public housing blocks. In 2012/13, 33 of our development projects have adopted micro-climate studies.



Simulation diagram of micro-climate studies for the Domain, shopping centre at Yau Tong Estate

Low Carbon Building Design

Over the years, we have been taking forward actions during the planning stage of our projects to look for opportunities to alleviate greenhouse gas (GHG) emissions in order to contribute to the government's goal of reducing carbon intensity by 50-60% by 2020 when compared with 2005.

In our recent development projects, we have been adopting the Carbon Emission Estimation (CEE) method for all new projects at design stage to identify carbon emissions reduction opportunities through the assessment of six aspects, namely, construction materials, structural materials, communal building services installation, renewable energy, tree planting and demolition. Since its implementation in 2011, we have applied the CEE method to 19 design projects. This enables us to benchmark the carbon emission levels throughout the project life cycle with various design options and to set achievable goals for improvements.



Kai Tak Site 1A project design with the application of Carbon Emission Estimation method to benchmark the carbon emission levels throughout the project life cycle

Construction of Green Buildings

Using Green Materials and Components

Application of green building construction technology is very important to our development projects as many novel green construction methods and products can bring us considerable benefits in the long run.

For “green” construction materials, we have since 2011 specified that the timber used for our temporary works should come from sustainable sources such as Forest Stewardship Council. In addition, we have established specifications that the non-fire rating or half-hour fire rating door cores used in public housing should be softwood from sustainable source.



Timber used in sites with FSC certification

We constantly look for opportunities to reduce waste generated from our development projects. We always select materials that can be suitably recycled and used within the site or for other development projects. For instance, in the development of Kai Tak Site 1A project, the cement-stabilised marine mud was used for backfilling within the site. These treated materials were also used for paver blocks, masonry blocks and roof tiles, which became building materials to be applied within the construction site. In addition, recycled plastics were reused as external decking in various projects.



Use of cement-stabilised marine mud for backfilling



Paver blocks made of cement-stabilised marine mud

To further enhance the use of “green” materials and components, we have specified and stipulated the following requirements in all our building contracts:

- Use of pulverised fuel ash (PFA) as cement replacement materials in structural concrete with mass concrete pouring such as transfer plates/beams
- Use of recycled rock fill in earthworks and recycled sub-base materials in roadworks
- Use of recycled rock cores retrieved at GI works for landscape and associated external works
- Use of recycled glass cum aggregate for concrete paving blocks

By replacing part of the cement with PFA in the concrete mixes, we saved about 55 000 tonnes of cement in 2012/13.

To reduce concrete usage and to make the best use of recycled materials in our development projects, we have specified the requirements of using Ground Granulated Blastfurnace Slag (GGBS) as a partial substitute of cement in precast concrete facades building contracts since December 2011. From now on, GGBS will be used to replace 35% of the cement in the precast concrete facades in all our new development projects. With such arrangement, we estimate that for each 41-storey domestic block there will be a saving of about 300 tonnes of cement.



GGBS as a partial substitute of cement in precast concrete facades

To further reduce concrete usage and to achieve better concrete performance during construction, we have applied Excelicrete™ technology for floor slabs and beams at the car park and commercial facilities in the pilot project of Kai Tak Site 1B.

Our on-going assessment of synthetic macro-fibre reinforcement on-grade slabs indicated that the performance was satisfactory. As such, we have incorporated this technology in the design of various projects, including Sha Tin Area 52 Phase 2, Anderson Road Site D and Site E Phases 1 & 2.

Adoption of Green Construction Methods

As early as 1980s, we have already been pioneering the use of precasting techniques in construction of our domestic blocks. We have included facades, stairs and semi-slabs as the precast components in all development projects. In addition, precast concrete components such as precast columns, beams and semi-slabs had been widely adopted in the carpark of Kai Tak Site 1A. The adoption of volumetric precast bathrooms at Kai Tak Site 1A and 1B has been extended to 10 other development projects, while volumetric precast kitchens have been incorporated in two projects. A precast water tank at ground floor and a precast roof water tank have been incorporated in the Kwai Shing Circuit and Sha Tin Area 52 Phase 2 projects respectively.



Volumetric precast bathroom in Kai Tak Site 1B

Another green initiative that we implemented was the adoption of re-usable modular hoarding with bolt-and-nut fixing design in our development projects. Such application has been extensively adopted in housing projects including Lei Yue Mun Phase 3, Anderson Road Sites D & E, So Uk Estate Phase 2 and Sha Tin Area 52 Phases 1, 3 and 4.



Re-usable modular hoarding at Anderson Road Sites

By adopting precast concrete components, metal formwork and metal hoarding, we conserved 16 500 tonnes of timber from our construction projects in 2012/13.

To further enhance the environmental performance of contractors on site, we have applied the use of hard paved construction method to all of our piling and building sites since 2005. In addition, we have stipulated the following requirements in our works contracts:

- Submission and implementation of environmental management plan by contractors on site;
- Banning the use of incandescent light bulbs for temporary lighting on site;
- Use of generators with Quality Powered Mechanical Equipment Labels;
- Mandatory installation of water recycling facilities;
- Adoption of specification restricting vehicle speed on site;

On the other hand, we have investigated the potential of reducing packaging waste materials in construction sites. After liaison with materials suppliers, measures in reducing packaging waste have been introduced for cooking bench, sink unit and metal gateset.

Design for Achieving Sustainable Building Standards – Hong Kong Building Environmental Assessment Method Plus (BEAM Plus)

In the design stage of our housing projects, we always strive to achieve recognised building assessment standards so as to ensure that our developments can provide a safer, more comfortable, more functional and more efficient living environment for our tenants. Starting from 2011/12, we have begun to promulgate new building specifications to align with BEAM Plus standards in all our housing projects.

Our achievements to the BEAM Plus green building standard in our new projects are summarised below (up to end of March 2013):

Project	Type	Assessment Tool	Rating
HOS Development at Sha Tsui Road, Ex-Tai Wo Hau Factory, Tsuen Wan	Residential	BEAM Plus NB V1.1	Registered
New HOS Development at Ching Hong Road	Residential	BEAM Plus NB V1.1	Registered
Proposed HOS Development at Mei Mun Lane, Shatin Area 4C	Residential	BEAM Plus NB V1.2	Registered
Proposed HOS Development at Pik Tin Street, Shatin Area 4D	Residential	BEAM Plus NB V1.2	Registered
Public Rental Housing Development at Ex-Yuen Long Estate	Residential	BEAM Plus NB V1.2	Provisional Platinum
Public Rental Housing Development at Lin Shing Road, Chai Wan	Residential	BEAM Plus NB V1.2	Registered
Public Rental Housing Development at San Po Kong	Residential	BEAM Plus NB V1.2	Registered
Public Rental Housing Development at Tung Chung Area 56	Residential	BEAM Plus NB V1.2	Registered
Public Rental Housing Development at Ex-Au Tau Departmental Quarters	Government, Institution or Community	BEAM Plus NB V1.2	Registered
Public Rental Housing Development at Anderson Road Sites A and B Phases 1 and 2	Residential	BEAM Plus NB V1.2	Registered
Public Rental Housing Development at Tuen Mun Area 54, Site 2, Phases 1 & 2	Residential	BEAM Plus NB V1.2	Registered

Greening for the Environment

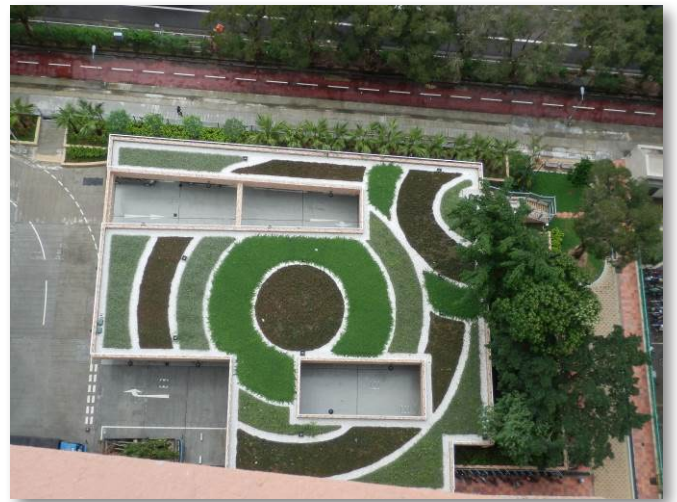
We have formulated comprehensive plans for greening with due consideration to site constraints when planning and designing new public housing. We have established the overall target of 30% green coverage for all new housing projects, with a minimum of at least 20%. To strengthen greening initiatives in our developments, all new housing projects are planned with a tree planting ratio of not less than one tree per 15 flats.



Greening in Fung Wo Estate at ground level

We have introduced an enhanced tree management plan and a tree management system that is operated on Geographic Information System. This initiative can facilitate the preservation and protection of all existing trees in our estates.

During the year, we have established a number of green roofs for low-rise structures. Green roofs at high-rise blocks have also been incorporated in designing suitable projects. In addition, we have provided vertical greening and grass paving system for some vehicular areas. Two residential blocks in Tseung Kwan O 73B were selected for the study of the environmental benefits and energy conservation effectiveness of green roof.



Green roof at Fung Wo Estate

We have also introduced areas for community gardening and have organised Action Seedling programme to promote community participation in early planting.



Action Seedling at Hung Hom Estate



Action Seedling at Tung Wui Estate

To maintain green features of our estates, we have been providing various slope treatment services, including hydroseeding, planting, and other green treatments, in order to improve the appearance of all newly formed slopes.

To optimise greening and foster a green living environment, we have adopted some other initiatives such as:

- conducting pilot Bio-swale installation with Spent Mushroom Compost in Tin Shui Wai Area 104 to protect underground water by reducing contaminants;
- incorporating facilities to turn garden waste into compost in the design of the community planter area in Kwai Shing Circuit; and
- mixing recycled felled trees with food waste to produce compost during the construction stage in Hung Shui Kiu Area 13 Phase 3.

Energy Conservation

Systematic Approach for Effective Energy Management – ISO 50001

Realising the importance of effective energy management, we started to develop an Energy Management System (EnMS) based on the internationally recognised ISO 50001 standard in 2011. Compliance with the ISO 50001 standard demonstrates that we are committed to implementing a sustainable and systematic approach on energy management in order to improve energy efficiency for our operations.

With our continuous efforts in pursuit of effective energy management, we received the first ever ISO 50001 certification for residential building design in Hong Kong in June 2012. The implementation of our EnMS has also assisted us in verifying the energy performance of various designs for communal building services at our new domestic blocks. Energy estimation has been conducted for all new projects. As of March 2013, we have completed energy baseline comparisons, using the framework of our EnMS, for 13 projects at the design stage for further improvement.

Achieving Energy Efficiency in Buildings

Since 2002, we have been obtaining energy certificates for all newly completed buildings. This year, we have obtained 85 energy certificates for our buildings in the four key types of building service installations, including air-conditioning installations, lighting installations, electrical installations as well as lift and escalator installations, which complied with the design standards as stipulated in the associated Building Energy Code. This demonstrates our compliance and commitment to achieve energy saving in our buildings.

Use of Renewable Energy

Riding on the success for the application of PV systems in different housing estates, we promulgated standard specifications for installation of PV systems in 2012 for incorporation into our electrical sub-contracts in order to facilitate the widespread application of PV systems in our new public housing projects.



Solar panels at Kai Tak Site 1A

During the year, we have incorporated a grid-connected PV system in the designs of all new domestic blocks where there is sufficient roof space and direct sunlight available to facilitate the usage of PV systems. It is estimated that the PV system can provide about 1.5% of the communal electricity demand. All new housing developments were provided with one or two solar-powered light fittings for educational purpose.

Application of Light Emitting Diode (LED) Lighting

In recent years, we have been carrying out feasibility studies for the application of LED lighting system and the prototype of LED bulkhead for general illumination at selected housing estates. Further to the trial application at Tsz Ching Estate, we started to install LED bulkhead light fittings in a larger scale trial for one entire domestic block at Kai Ching Estate at Kai Tak Development this year and the performance is under monitoring.



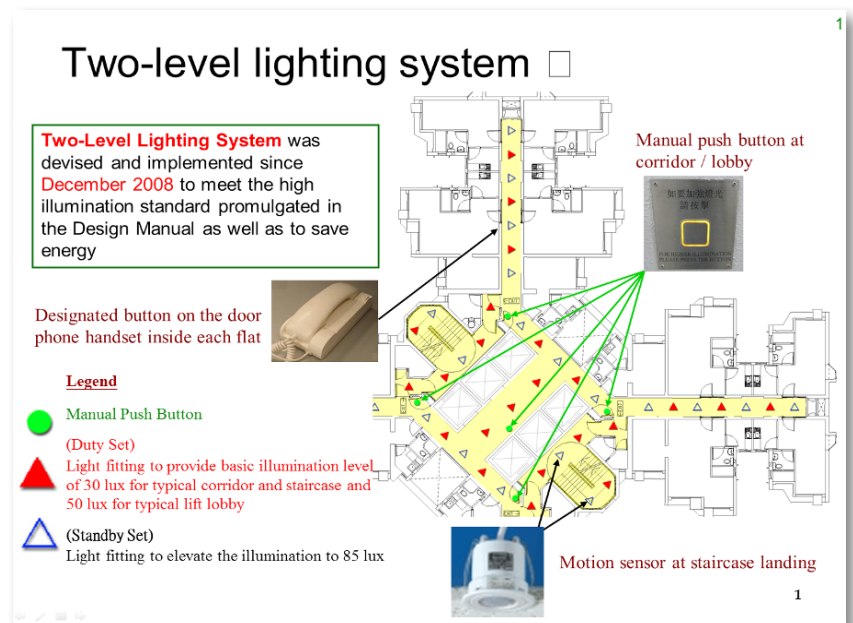
LED installations at Kai Ching Estate

Trial Use of Energy-saving Technologies and Initiatives for Lift Installations

We notice our lift system in buildings is one of the heavy consumers of power. As such, we have been seeking opportunities to optimize the energy efficiency for our lift operations. Over the years, we have liaised with various lift contractors to explore the wider use of energy efficient gearless permanent magnet synchronous lift motor in the lift types commonly adopted in our projects. During the year, we also completed the trial applications of regenerative drives in high speed lifts to generate electricity for supporting the lighting and other equipments in the communal area. Regenerative power provision for lift motors of 18 kW or above would be made in new lift installations.

Optimisation on Illumination Level of Domestic Blocks

In response to the requirements of achieving barrier free access in buildings, the statutory illumination standard for public areas has been significantly increased. As such, we have incorporated a two-level lighting system for all new domestic blocks in our building design since 2008 in order to achieve the new illumination standard without undue increase in energy consumption.



Two-level lighting system

During the year, we completed trial applications for environmental lighting controls, using motion-sensors and push buttons at the communal areas of five domestic blocks and the results were satisfactory. After the trial application, a technical guide was issued and the application of environmental lighting controls is now widely adopted in all the new domestic block designs.

Smart Meter and Information Display System

The trial installation of display system in Yan On Estate to provide tenants with information on electricity, gas and water consumption has been completed. This system facilitates comparison among blocks of the same estate in order to motivate tenants to save energy. A “smart meter” monitoring system combined with displays at main entrance lobbies for tenants’ information is planned to be adopted for future projects.

Application of Hybrid Mode of Ventilation

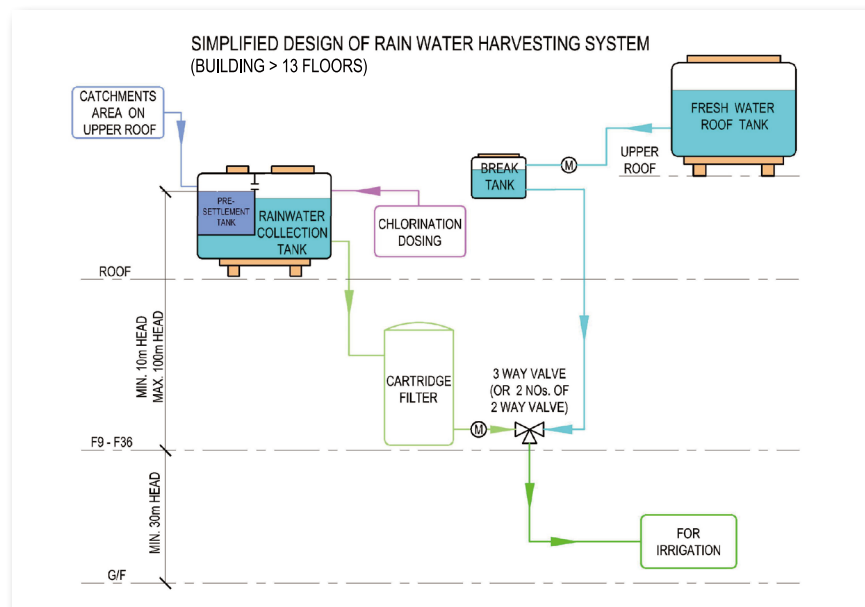
We incorporated hybrid ventilation system in Yau Lai Shopping Centre, Choi Tak Shopping Centre and Yau Tong Estate Phase 4 Shopping Centre (Domain) to save energy of air-conditioning and mechanical ventilation systems. The performance of the system on energy saving is under monitoring.

Water Conservation

Water conservation can be the single most important action that everyone can take to preserve one of our most precious resources. During the year, we have implemented a number of initiatives to reduce water usage or conserve water resources in our developments.

In 2012/13, we have promulgated specification to reduce the flushing volume of single flush water-closets from 7.5 litres to 6 litres. We have also completed a study for testing dual flush water closets which could comply with the BS EN 997 standard. The study finding helps us prepare specifications for using dual flush water closets target for promulgation in 2013/14. Specification requirements for the use of water efficient shower handsets and mixers have also been applied to all new building contracts.

The rainwater harvesting system (RWHS) has been adopted in our designs for many new development projects. Since April 2012, it has been allowed for in all new building projects in their scheme design. This year, we have continued the evaluation on the performance of RWHS at two shopping centres (Choi Tak and Yau Lai) and three estates (Yau Lai Estate, Lower Ngau Tau Kok Estate and Tung Wui Estate). The study findings help us measure the effectiveness of the system.



Simplified design of rainwater harvesting system

During the year, we have been installing the set-up for using reclaimed water from water-cooled air conditioning system for irrigation at the Domain. The collection of air-conditioning condensate, water consumption and water saving for irrigation will be monitored in 2013/14.

Noise Control

Noise Control During Construction and Demolition

During the development stage of our projects, we put substantial efforts in reducing the construction noise impact to the local community. In some projects where demolition works have to be undertaken, we encourage our contractors to use hydraulic concrete crushers (HCC) to replace noisier percussive concrete breakers for works. To facilitate the adoption of HCC, we have established associated operation guidelines which are available in our website for construction partners to follow.



Employing hydraulic concrete crusher at site

Road Traffic Noise Control

In some of our development projects, there may be places where our residents are affected by road traffic noise. We have been exploring and implementing mitigation measures, aiming to minimise road traffic noise impact to our residents. Over the years, we have been making substantial efforts to apply practical measures such as acoustic balconies, acoustic windows, architectural fins, and noise barriers in order to maintain minimal impact to our residents.



Acoustic balconies and architectural fins



Air Quality Improvement

Electric vehicle charging facilities have been allowed for in indoor car parks of all new estates under design.

Initiatives in Existing Housing Estates

Environmental Management System for Estate Services

In recent years, we have been formulating green management initiatives and operational guidelines with the aim to develop a green and sustainable estate community for our tenants. Since 2010, we have started to develop an Environmental Management System (EMS) in accordance with the internationally recognised ISO 14001 standard for our property management operations. Adopting an effective EMS can provide assurance to ourselves as well as our external stakeholders that environmental impact is at all time measured and our performance will be continuously improved.

Following the ISO 14001 certification for the property management of three pilot estates in 2011, we extended the certification to 93 estates in 2012/13. Further extension of ISO 14001 to all of our estates is expected in 2013/14.



ISO 14001 certificate

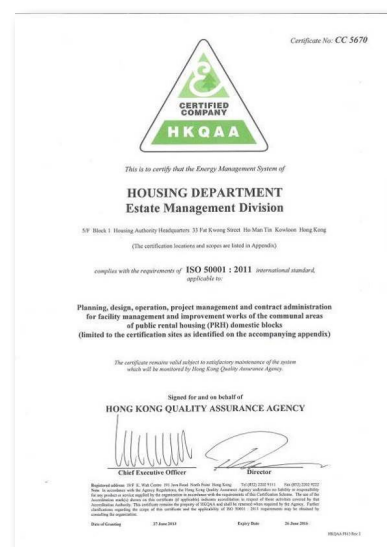
BEAM Plus

To benchmark the environmental performance of existing public rental housing (PRH) estates using scientific building assessment method, feasibility study was conducted for Kwai Shing West Estate in early 2013 to examine whether the levels of performance prescribed under the BEAM Plus for existing buildings, including energy use, water use, indoor environmental quality etc., can be achieved. To enhance environmental performance and promote sustainable living, environmental friendly designs and installations will be adopted in Kwai Shing West Estate, which is targeted to obtain BEAM Plus certification in 2014.

Energy Conservation

ISO 50001 Energy Management System

To fulfill our commitment to raise energy consumption efficiency in all the public facilities of PRH estates and to support energy saving and carbon reduction in Hong Kong, we have planned to implement ISO 50001 certification for all PRH estates in two phases in the coming two years. Kwai Shing West Estate is the first pilot estate to obtain the ISO 50001 certification in mid-2013, with its ISO 50001 implementation started in January 2013.

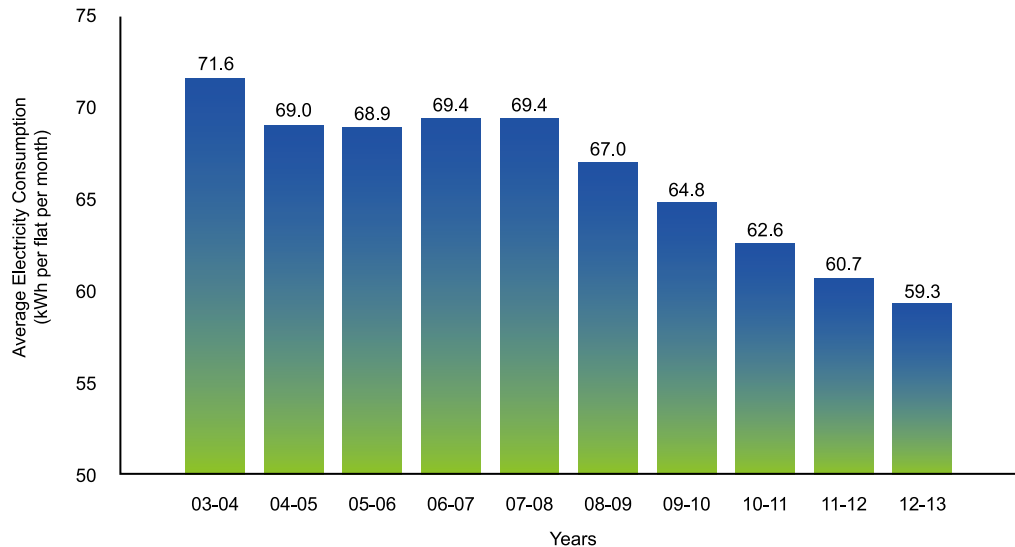


ISO 50001 certificate for Kwai Shing West Estate

Overall Energy Consumption

In 2012/13, our electricity consumption in the public areas of PRH blocks was 59.27 kWh per flat per month. Such consumption figure was 2.4% lower than the level recorded in 2011/12.

Electricity Consumption in Public Area of Estates



Adoption of Energy and Carbon Reduction Measures

During the year, our team put a lot of efforts in seeking opportunities for adoption of various energy reduction measures. Starting from 2012/13, we launched a 42-month programme of replacing electromagnetic ballast with energy-saving electronic ballast for the light fittings in all our existing estates, covering around 960 building blocks. This year, we have completed the replacement of energy-saving electronic ballasts for 260 PRH blocks and we expect all the replacement works will be completed by 2015.

To combat climate change, we have joined the Government's Energy Saving Charter to encourage community-wide participation in energy saving. By signing the Charter, we are committed to maintaining an average indoor temperature of 24-26°C between June and September 2012 at eight of our shopping centres with central air-conditioning supply, namely Choi Tak, Hoi Lai, Kwai Chung, Lei Muk Shue, Mei Tin, On Kay Court, Tin Yan and Yau Lai Shopping Centres.



Installation of energy-saving electronic ballasts

In view of the Government's initiatives in pursuit of carbon reduction in built environment and workplaces, we carried out carbon audits for 14 selected PRH domestic blocks of different types in 2012/13. The carbon audit results will be used for establishing baseline performance references for evaluating the performance of our buildings in our future studies for improvement.

Air Quality Improvement

We support the Government's initiative of introducing electric vehicles (EVs) for improving Hong Kong's air quality. Four carparks at Choi Tak Estate, Shui Pin Wai Estate, Yau Lai Shopping Centre and Kwai Chung Estate have been installed with EV charging facilities. In addition, we have provided incentives for customers to enjoy a special parking offer for EV charging with their parking fee waived from one to two hours.

Our EV charging facilities in different carparks are listed below:

Carpark	Charging facilities available
Choi Tak Estate	5 standard chargers
Shiu Pin Wai Estate	1 quick charger
Yau Lai Shopping Centre	1 quick and 6 standard chargers
Kwai Chung Estate	7 standard chargers



EV charging facility at Choi Tak Shopping Centre Carpark

Noise Control

We have been paying a lot of attention to ensure that noise generated from our domestic premises or public places (neighbourhood noise) does not affect our residents. Since 2005/06, we have not received any noise abatement notices from the Government.

Greening and Landscaping

Over the years, we have been taking a lot of initiatives to improve the greening and landscapes for our estates so that people can enjoy a high quality living environment. In addition to our two thematic gardens completed at Shek Yam East and Tsz Ching Estates in 2012/13, we have established various gardens with specific themes such as palm garden, herds garden, scented plants garden, butterfly garden, etc. where residents can explore the natural beauty of greenery during their leisure time. There are 11 green roofs installed at Wo Lok, Fu Shan, Choi Hung and Fuk Loi Estates, which are all well received by the residents. In addition, we established community gardens at 10 estates and completed landscape improvement works at 18 estates in 2012/13. We also improved the slope appearance of 10 slopes in existing estates by provision of planters for shrubs and creepers.



Rhododendron Garden at Shek Yam East Estate



Herbs Garden at Tsz Ching Estate

Organising Green Activities

To strengthen our tenants' environmental awareness, we collaborated with the local Estate Management Advisory Committees (EMAC) to organise Estate Green Fun Days at 18 PRHs during the period of October 2012 to January 2013. The Fun Days were all well received by the tenants, with educational message of green living being disseminated through display panels and game booths.



Estate Green Fun Day at Lung Hang Estate

Through EMAC we also promoted community participation in greening at 20 estates and organised tree planting days in 10 estates.

Our new phase of environmental programme “Green Delight in Estates” was launched in the second quarter of 2012. This long-term community environmental education programme aims to raise the environmental awareness among residents and to help them developing a lifestyle so that our living environment can be improved and sustained. Partnered with the green groups, the theme of this year programme was “Reduction of Municipal Waste”. Events under the theme included a green recipe competition, fun day fairs, technical workshops and field visits for our residents.



“Green Delight in Estates” launching ceremony



Waste Management

Since 2005, we have been actively implementing the Source Separation of Domestic Waste Programme across our PRH estates. During the year, we achieved the targets with the achievements of collecting about 27 600 tonnes of waste paper, 1 930 tonnes of plastic bottles, 1 130 tonnes of aluminium and 1 000 tonnes of used clothes for recycling in our estates.



Collection of recyclables

Collection of recyclables

Waste Type	Quantity of Waste Collected for Recycling (tonnes)					
	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
Paper	14 748	14 194	17 935	21 376	23 849	27 589
Plastic Bottles	765	939	1 218	1 427	1 584	1 929
Aluminium Cans	310	496	520	865	1 054	1 133
Used Clothes	633	618	775	844	945	998

To facilitate our collection of recyclables, collection points for the recyclables had been established in all PRH estates during the year. Tenants were encouraged to take their recyclables to the collection points in exchange for cash or daily household items.



Promotion of recycle collection

A trial scheme on glass bottle recycling was launched in collaboration with Environmental Protection Department in six PRH estates in East Kowloon Region since December 2010. The trial scheme was extended to cover 29 PRH estates in Kowloon East Region in October 2012.

A trial scheme on food waste recycling using on-site composters has been launched in two PRH estates since December 2011. Another trial scheme was further launched in six more estates from end of 2012 under the “Green Delight in Estates” programme, using off-site food waste recycling (for conversion into fish feed) as well as on-site recycling by micro-organisms. Details are provided in the [Case Study](#).

To raise the awareness of yard waste issues among tenants, we launched a pilot scheme aiming to collect unwanted Lunar New Year citrus potted plants and replant them during the year. The pilot scheme was well received by tenants, with 35 estates and one commercial centre participating in the scheme and over 1 000 pots of citrus potted plant collected. Supported by the Estate Management Advisory Committee, a presentation was organised by the Horticulture Unit of the Housing Department to share the technical skills and knowledge required for replanting citrus plants among the participants.



Glass bottle recycling



Residents bringing their buckets of food waste to the ground floor of each block for food waste recycling



Lunar New Year Citrus replanting

Tree Management in Estates

Over the years, our Tree Management and Horticulture section has been responsible for formulating long-term plans and measures for effective execution of tree management and horticulture works. Our team members have been taking considerable efforts to implement the tree management programmes in order to maintain our trees in good conditions.

To manage approximately 100 000 trees is never an easy task. As such, we have established a comprehensive electronic tree database to assist in planning our management work and conducting our annual tree risk assessment exercise effectively.



Our staff from the Tree Management and Horticulture Section conducting annual tree risk assessment

To promote the knowledge and interest on trees among PRH residents and management staff, we organised 15 training courses and had successfully recruited 630 volunteers of Estate Tree Ambassadors to assist in our tree management works during the year.



Tree Ambassador Training

Asbestos Abatement

To protect public health, our Asbestos Abatement Programme is in place to abate the remaining asbestos containing materials in existing HA-managed building blocks. During the year, we completed the asbestos removal works for one school block at Cheung Ching and one domestic block at So Uk Phase 2.

We conducted two surveys last year to monitor the condition of asbestos containing materials in existing PRH estates to ensure that they were in satisfactory conditions. A registered specialist asbestos contractor was also engaged to carry out emergency repair to underground asbestos cement water-mains for all PRH estates.

Initiatives in Office at Work

Environmental Management System Certification

Our Development and Construction Division and Estate Management Division achieved ISO 14001 EMS certification in June 2009 and May 2011 respectively. Our Corporate Services Division has been implementing an EMS in accordance with the ISO 14001 standard since April 2013 for the provision of property management functions at HA Headquarters (HAHQs). For our Independent Checking Unit, we target to complete the ISO 14001 certification by mid 2014. Through the implementation of EMS, we adopt a systematic and effective approach to oversee and manage the HA's environmental aspects.

Carbon Management and Energy Saving

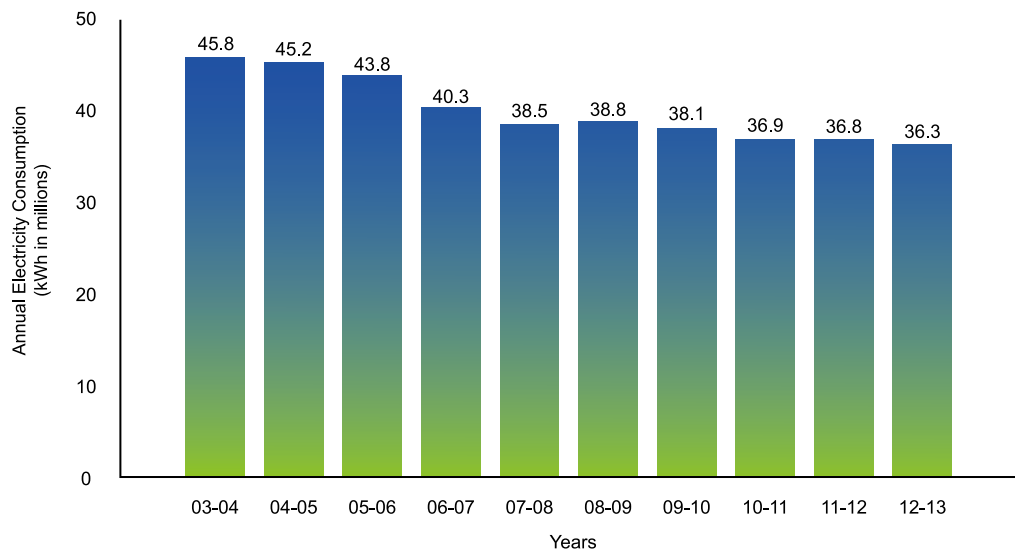
To monitor our carbon footprint and identify opportunities for reducing carbon emission, we have been conducting carbon audits for five selected HA premises including HAHQs and Lok Fu Customer Services Centre since August 2008. Data for the past four years had been captured and analysed to identify room for improvement. Further reduction in carbon emission had been observed in selected premises after the implementation of various improvement initiatives.



Retrofittings by electronic ballast at HAHQs
Block 3

In 2012/13, our electricity consumption was 36 250 640 kWh, which was decreased by 5.9% as compared to our baseline consumption in 2007/08.

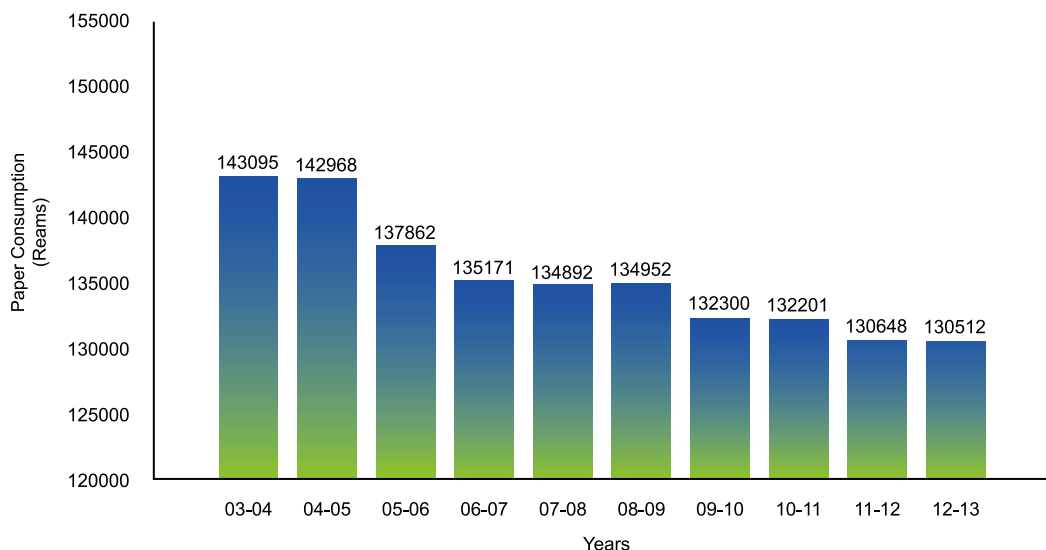
Annual Electricity Consumption in HA Offices



Waste Management

By putting substantial efforts in implementing various waste management initiatives in our offices, we have met our target and achieved a 3.2% reduction of paper consumption as compared to our baseline consumption in 2007/08.

Paper Consumption in HA Offices



We continue to use environment-friendly paper as a prerequisite in printing of all publicity materials (except sales and marketing publications). Furthermore, we achieved a collection of 42.7 kg of waste paper per staff, which exceeded our target of 20.7 kg. We also arranged to collect all disposed mercury-containing lamps in HAHQs for special waste treatment.

Water Conservation

We continue to record and monitor water consumption at HAHQs. In 2012/13, the water consumption was 11 830 cubic metres which was a 22.6% reduction against the consumption in 2007/08.

Environmental Awareness and Green Activities

Staff awareness is crucial to environmental protection. To this end, we have sent out regular reminders to appeal to and encourage staff for saving energy, water and paper.

To enhance staff environmental awareness and knowledge, we organised 18 seminars regarding waste management, the latest environmental legislation and other environmental issues during the year. We organized the HA Staff Environmental Awareness Quiz in August to September 2012, whereby dedicated web pages were established to facilitate our staff to enter the quiz anytime during the quiz period. We have also conducted four environmental displays at HAHQs Green Corner to disseminate environmental messages and information.



ISO 14001 Environmental Management System
Internal Auditor Training



Green Corner at our Headquarters

In June 2012 and February 2013, HA joined hand again with the Community Recycling Coop of Industrial Relations Institute, a non-profit making charity organisation, to hold two Environmental Collection and Recycling Campaigns. Collection counters were set up at the HAHQs, Lung Cheung Office in Wong Tai Sin and the Customer Service Centre in Lok Fu. We collected about four tonnes of reusable items including electrical appliances, books, household items, handbags, shoes, beddings and decorations, etc. These activities not only contribute to waste reduction but also demonstrate our care to the community by donating the surplus items to the needy.



Director of Housing, Deputy Directors and Assistant Directors gave donation at HAHQs



The HA staff at the HAHQs donated reusable household items

Over the years, we have invited our staff to participate in various external environmental activities such as seminars on green office and energy efficiency, the Hong Kong Tree Planting Day and the Community Chest's Green Day.

On 23 March 2013, about 150 participants including members from our volunteer group and their families as well as tenants from six PRH estates joined the annual Hong Kong Tree Planting Day. During the event, more than 10 000 saplings were planted at Sai Kung East Country Park.



Our staff members, their families and our tenants participated in the Hong Kong Tree Planting Day

During the year, we actively promoted green living in the community. We participated in the Green Carnival organised by the Green Council on 3 February 2013 at the Kowloon Park. A game booth and display panels were set up to deliver messages of green living to participants.

As in the past, we fully support the annual Hong Kong Flower Show. This year, we designed a landscape of “Home of Blossoms” which won the Gold Award for Outstanding Exhibit (Landscape Display). With an octagonal prism in the setting to produce reflections under the sun and the way that plant walls and flower beds grew in profusion, the “Home of Blossoms” illustrates how the HA commits to provide cosy homes with greening and environmental protection elements.



HA's booth at Green Carnival 2013 to promote green living



Our floral display “Home of Blossoms” in the Hong Kong Flower Show

Social Performance

- Initiatives in Planning and Construction of New Housing Estates
- Initiatives in Existing Housing Estates
- Initiatives in office at work



We are committed to ensuring safety at our estates, promoting quality living, fostering partnership with different stakeholders and building up a sense of community among our tenants.

Through various public channels and social activities, we are able to communicate our policies, plans and achievements to our stakeholders on a timely manner, while listening to their valuable feedback.

As a socially responsible organisation, we have achieved full compliance with applicable social legislation during the reporting year. In addition, our continuous efforts in cultivating safe and caring working and living environment have been recognised by a number of awards. In particular, we received the “5 plus Consecutive Years Caring Organisation Logo” by the Hong Kong Council of Social Service for the seventh time in 2012/13.



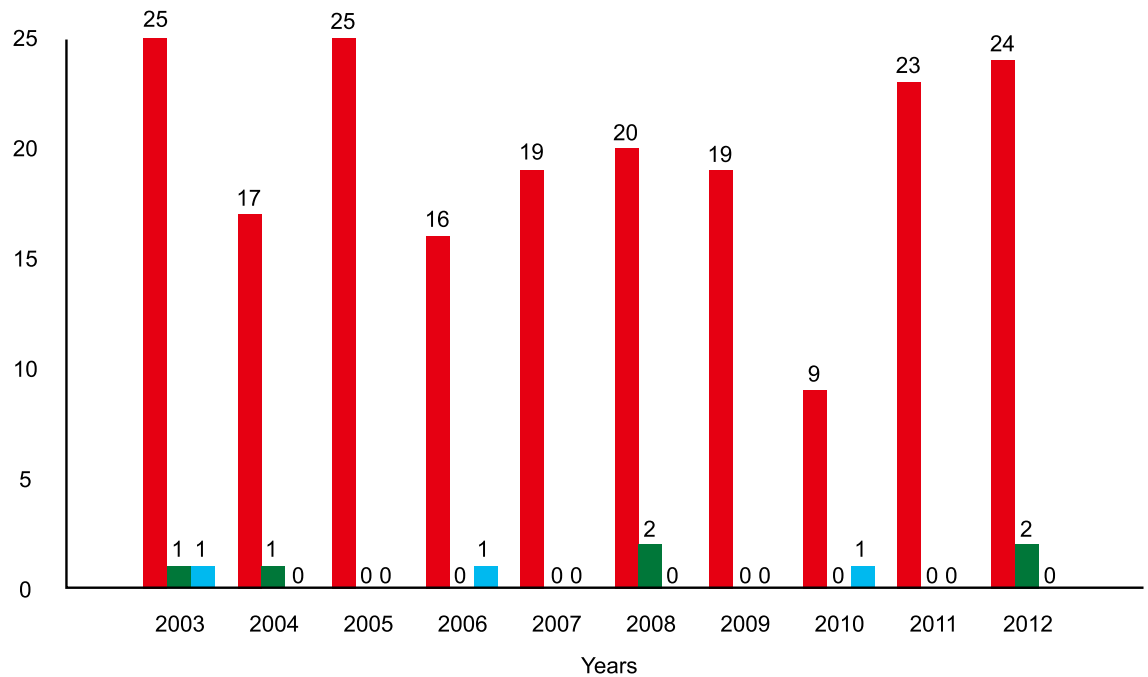
We received the “5 plus Consecutive Years Caring Organisation Logo” from the Hong Kong Council of Social Service.

Initiatives in Planning and Construction of New Housing Estates

Construction Site Safety

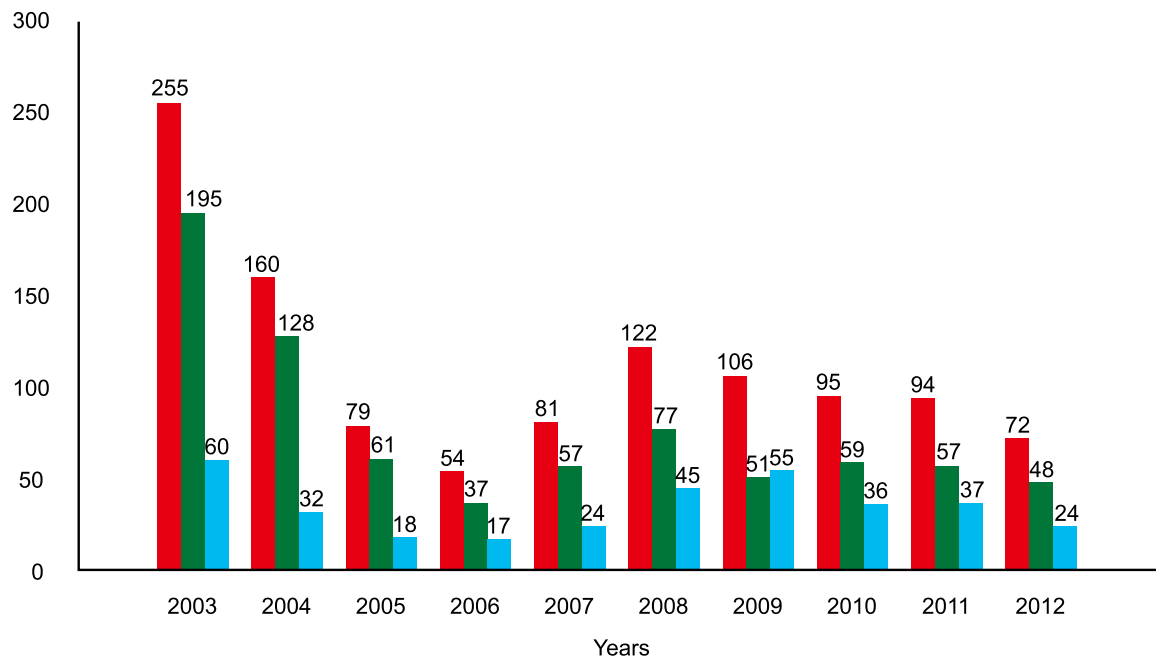
It is our commitment to provide safe working environment to all workers involved in our projects, including those employed by our contractors. Following the safety goal stated in the HA Site Safety Strategy 2012, the accident rate was 7.4 per 1 000 workers for new works contracts and 4.8 per 1 000 for maintenance works contracts in 2012, which are well below the average Hong Kong industry accident rate of 44.3 per 1 000 workers.

Number of Fatalities Compared to Local Construction Industry



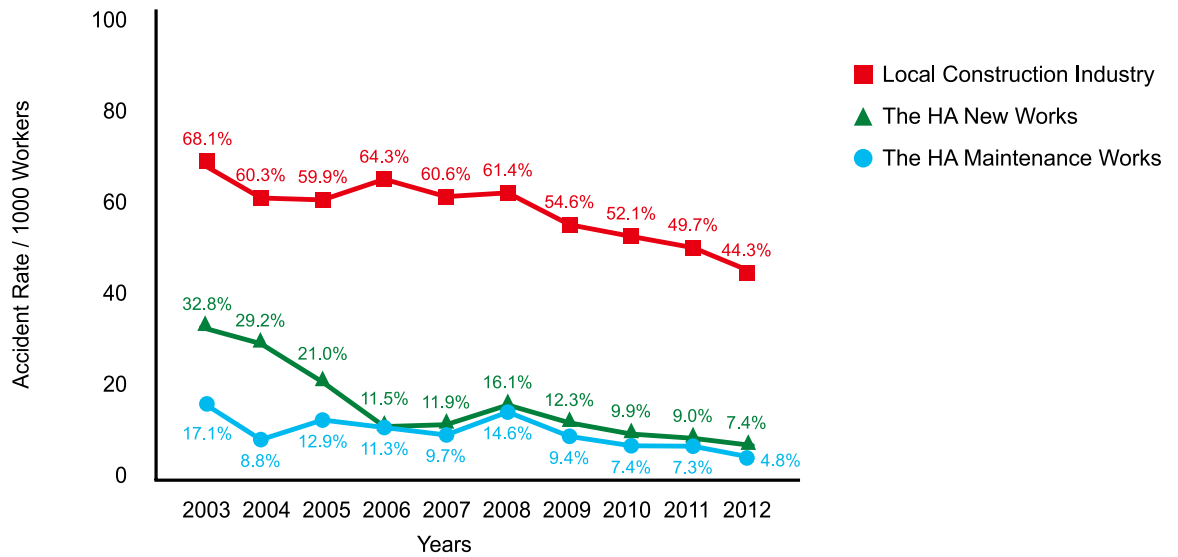
■ Local Construction Industry
■ The HA New Works
■ The HA Maintenance Works

Number of Accidents at the HA's Construction Sites



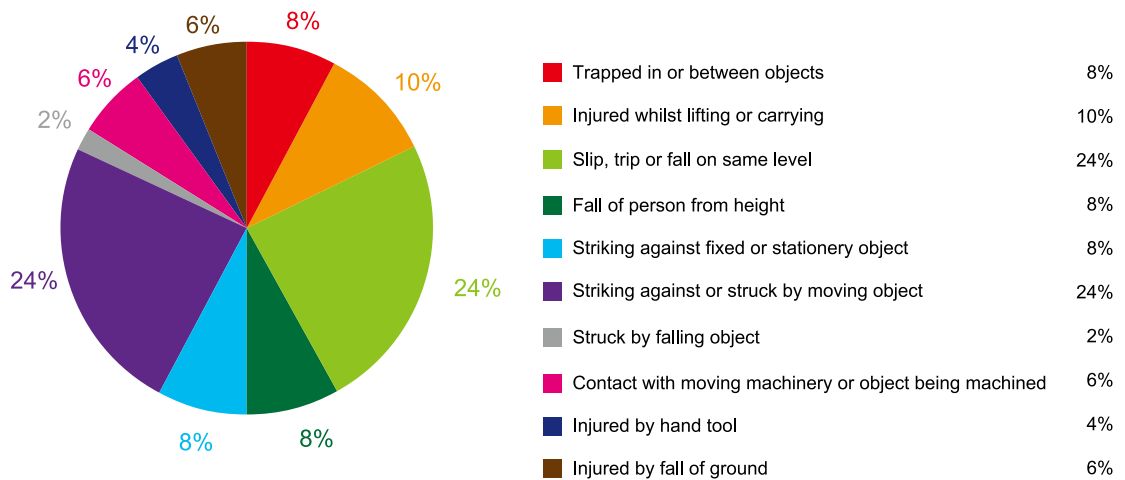
■ All HA Construction Sites
■ The HA New Works
■ Maintenance Works

Accident Rate per 1000 Workers Compared to Local Construction Industry Average

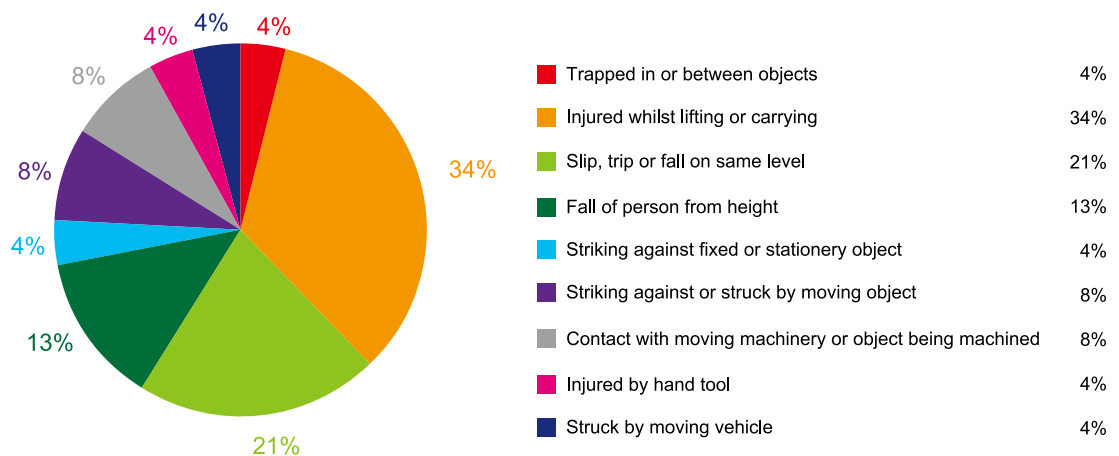


The major distribution of different types of accidents in both new works and maintenance works are presented below.

Types of Accident in New Works



Types of Accident in Maintenance Works





New uniform adopted at HA's construction sites

To enhance the safe and professional image of the construction teams, a standard industry uniform has been adopted at HA's construction sites starting from the third quarter of 2012. To enhance safety awareness of workers and improve safety management system, we continue to monitor site safety at construction sites for both New Works contracts and Maintenance contracts. We have also promulgated new specification clauses to introduce caring programme for new workers in our new works contracts in March 2013. Moreover, Working Groups on Safety of Plant on HA sites were established to undertake reviews of practical measures to tighten tender assessment and specifications. Scoring system in technical submissions of complex building and piling contracts on plant in tender, Performance Assessment Scoring System (PASS), PilingPASS and DemolitionPASS have been enhanced to improve plant safety. New initiatives to enhance safe working environment and work practices will be formulated when circumstances arise.

We have conducted safety training, forum, seminars and updated our Site Safety website regularly and published the Practical Guide to Working at Height: Ensuring Safe Work Practices to enhance safety awareness and practice at construction sites. Co-organised by the Occupational Safety and Health Council, the 6th annual Site Safety Forum for Works Contracts and Property Services Contracts in June 2012 focusing on the theme of safe work and zero incidents has provided a platform for contractors, service providers and workers to exchange ideas and share experience.



Site Safety Forum for Works Contracts and Property Services Contracts

In addition to enhancing our Safety Auditing Scheme, we introduced our Lift and Escalator Nominated Sub-contracts Safety Auditing System, supplemented by the Surprise Safety Inspection Programme. We have also applied Building Information Modelling for work sequence visualization to enhance site safety. Provision of railing or fall arrest system as the last resort along the roof edges footbridges, covered walkways and canopies is introduced in new works contracts to protect maintenance and cleansing personnel from falling from height.

Partnership with Contractors and Suppliers

It is important to collaborate closely with our contractors to ensure safety at construction sites for quality delivery of projects.

As part of the tendering requirements, we request our contractors to comply with relevant international standards in quality management (ISO 9001), environmental management (ISO 14001), and occupational health and safety management (OHSAS 18001). Our enhanced Integrated Pay for Safety, Environment and Hygiene Scheme was implemented for new works contracts tendered from the second quarter of 2012 onwards. It provides incentives to encourage contractors to improve practices in relevant aspects.

We continue to use the PASS to monitor and measure the performance of our building, building services, piling, demolition and soft landscape contractors. At the end of 2012, the improvement of the average score of the PASS for different contractors in comparison with figures at the end of 2002 is tabulated below. We also planned to extend the PASS to cover lift modernisation in the third quarter of 2013.

Type of Contractors	Average PASS Score Improved (Compared with figures at the end of 2002)
Building Works	+2.18%
Electrical	+17.07%
Fire Services and Water Pumps	+24.78%
Lifts and Escalators	+12.31%

Planning and Design to Promote Social Cohesion

Enhanced Planning and Design

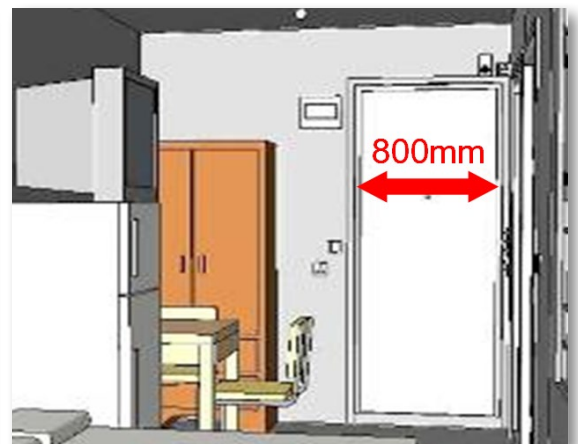
We actively promote social cohesion in the planning and design of housing estates. New estates with common areas were planned and designed according to site character to foster their own identities. We have also adopted the Universal Design principles in the design and planning of community facilities and domestic flats. By close liaison with other Government departments, we work to ensure timely availability of funding for the facilities and monitor the progress of infrastructure works to tie in with population intake in new estates.

Aiming to provide comfortable living environment for our tenants, we strive to continuously improve the flat design with regard to environment-friendly materials, cost-effective construction methods, and caring features for users. During the year, we have implemented the following features in the new flat design:

- A 50mm increase in storey height for better natural ventilation, lighting and spatial quality;
- An innovative design for cooking bench, with three adjustable heights to provide tenants with convenience of installing different types of stoves;
- A wider flat entrance door to allow easy access of wheelchair and comply with Universal Design principles;
- A wide range of notional family flat partition layout options, which enable easy setup of floor screeds and block wall partitions in accordance with the Building (Minor Works) (Amendment) Regulation 2012; and
- A new window arrangement of fixing main front windows while leaving side windows for ventilation to help reduce the traffic noise level up to about 2-3 dBA at some estates.



New polymer resin cooking bench with three adjustable heights



Width of flat entrance door increased from 750mm to 800mm

Engaging the Local Community

To increase the communication with the public, we organised a wide range of community engagement activities during the project planning, design, construction and flat intake process stages. We conduct community engagement workshops to present new development proposals to stakeholders and invite comments from audience to enhance the planning and design of the projects. These activities included engagement workshops or forum for Ex-Kwai Chung Married Quarters, Tai Pak Tin Street, Fanling Area 49 and Sha Tsui Road Home Ownership Scheme (HOS) Development, engagement meetings for Tuen Mun Area 54 Phase 2, Pak Tin Estate Redevelopment and Chai Wan Factory Estate and Sha Tsui Road HOS Development.



Community engagement workshop – public rental housing (PRH) development at Ex-Kwai Chung Police Married Quarters

Performance Review

As a continuous practice, we have engaged a third party to assist us in conducting tenant satisfaction surveys on newly finished buildings to collect their feedback on flat layouts, building services, waste recycling, etc. Last year, we surveyed 16 454 flats at nine estates and conducted more than 3 000 interviews, achieving an average satisfaction rating of 91.99%. As a follow-up to these surveys, we also organised Post Completion Review Workshops, where comments regarding the new estates would be exchanged in an interactive way. The findings will then be used as a useful reference for the regular review process for the Model Client Brief and Modular Flat Design.

To benchmark our performance against the industry, we have participated in the HKQAA-HSBC CSR Index annual performance assessment. Achieving a full score of 5.0, we were glad to receive this recognition that demonstrated a high level of corporate social responsibility through our practice.

Initiatives in Existing Housing Estates

Safety

Site Safety

Administered by the Occupational Safety and Health Council, the HA Safety Auditing System (Maintenance & Improvement) for District Maintenance Contracts, Redecoration Contracts, Lift Addition Contracts, Lift Modernisation Contracts and Lift Maintenance Contracts was launched in April 2012. The new system further ensures safety performance associated with these contracts. The annual Site Safety Forum for Works Contracts and Property Services Contracts as well as the Occupational Safety Forum for Cleansing Service also brought together contractors, service providers and frontline workers to share their experiences and practices on safety.

Fire Safety

Fire poses a significant safety risk to building occupants. Besides disseminating fire safety messages through the HA's fire safety website, radio programme and video broadcasting via Housing Channel, we continue to work closely with the Fire Services Department to arrange training sessions for tenants who are interested in becoming Fire Safety Ambassadors and Trainers. In 2012/13, our annual fire safety quiz was held in all estates for the eighth consecutive year, attracting a record number of 16 000 entries.



Fire Services Department Training Programme for PRH residents at Pat Heung Fire Services Training School

Our Estate Management Advisory Committees (EMACs) serve as an effective platform to promote safety awareness among local community. We present annual awards to 18 EMACs to recognise their outstanding achievement in 2012/13.

To equip tenants with knowledge in dealing with fire emergencies, we have organised fire drills at estates throughout the year. Estate fire safety campaigns were organised and safety messages were disseminated through posters, pamphlets and game booths, to increase the tenants' awareness and knowledge of fire prevention and escape.



Fire safety education game booth

Lift and Escalator Safety

Lifts and escalators are used by thousands of residents each day, we therefore put a lot of efforts to ensure their safe operation and use. Regular campaigns were held to promote general awareness on lift and escalator safety among the residents across all estates. The Retractable Fall Arrestor system was installed to improve worker safety during operating in lift pits. Moreover, the Safety Auditing System (Maintenance & Improvement) for Lift Maintenance Contracts and Lift Modernisation Works include regular reviews on lift safety performance for analysis and action.



Safety Mascot promoting lift and escalator safety to children and tenants in estate



Puppet shows at kindergarten promoting lift and escalator safety

Caring Neighbourhood

Quality Living

We provide tenants with well-maintained and quality living environment by introducing various schemes and measures, which include:

- Total Maintenance Scheme (TMS): operated on a five-year cycle and supplemented by the Responsive In-flat Maintenance Service, which had been implemented in all estates. TMS In-flat Inspection and Repair Programme had been successfully rolled out in 30 estates in 2012/13;
- Comprehensive Structural Investigation Programme (CSIP): assessing the performance of structures close to 40 years old and helping us determine whether they should be cleared or further sustained. CSIP investigation works were completed in three estates in 2012/13; and
- Estate Improvement Programme (EIP): for buildings identified by CSIP to be suitable for retention, EIP will implement necessary upgrading works to enhance tenants' living conditions (e.g. renovation of empty bays, resurfacing of public areas, addition of lifts and covered walkways and improvement of leisure facilities), EIP was carried out in ten estates in 2012/13.

Accessibility and Security

Starting from 2008, we have launched the lift addition programme to install lifts in some older estates to enhance accessibility and convenience for tenants at those estates. Out of the 35 projects under the programme, 22 were completed in 2012/13. At other applicable estates, we continued to replace older lifts with new models in phases through lift modernisation work (currently including 520 lifts in 24 estates) to improve their efficiency, user experience and energy saving.

In accordance with the Government's Design Manual: Barrier Free Access 2008, other than improvement on lifts, we also carried out enhancement works on pedestrian paths, access ways, and features to meet the special needs of individuals with disability. For each wheelchair-bound PRH applicant, we will arrange a joint site inspection for the applicant together with his/her occupational therapist or physiotherapist to confirm the accessibility and suitability of a flat for the applicant or the feasibility of flat modifications to improve accessibility prior to formal allocation.



Ramp for persons with disability

We further improved our Closed Circuit Television (CCTV) surveillance system with advanced colour cameras, digital video recorders and network infrastructure in PRH estates. We have completed the system upgrading in 132 estates by the end of 2012/13.

Clean Neighbourhood

We rely on cooperation of our tenants to keep a clean environment at estates. In addition to conducting regular awareness campaigns, we have applied a Marking Scheme for Estate Management Enforcement in Public Housing Estates to give penalty points to households that have conducted hygienic associated misdeeds. It could lead to termination of tenancy if 16 or more penalty points have been accumulated within any two-year period. During the year, 2 210 households were given penalty points under the Marking Scheme and 12 of them had accumulated 16 points or above.

Rent Assistance

We continue to implement the Rent Assistance Scheme to help tenants facing temporary financial hardship by granting them rent reduction. In 2012, we have promoted the scheme through Housing Channel, radio, posters, leaflets and EMAC newsletters to introduce the scheme to those in need.

Harmonious Families

Families are basic units of the society. Therefore, we have launched a series of schemes under the “harmonious families” theme for PRH tenants. There were more than 4 700 households participated in these schemes in 2012/13, with the total number of benefited households reaching 25 610.

The Harmonious Families Priority Scheme and Harmonious Families Transfer Scheme encourage different generations of eligible family members to live close and take care of their elderly or dependent relatives. The Harmonious Families Priority Scheme can award a six-month waiting time credit to eligible public housing applicants, and provides them with the options of living together with their parents or dependent relatives in any of the Waiting List (WL) Districts, or living in two nearby flats in the same WL District (other than the Urban district). Moreover, two generations of family members living in PRH flats in different District Council districts can also apply for moving closer to each other through the Harmonious Families Transfer Scheme.

The Harmonious Families Amalgamation Scheme offers options for younger families to share PRH tenancy with their parents, while the Harmonious Families Addition Scheme provides options for elderly tenants to add their younger family member(s) to the existing tenancy respectively.

Transfer Opportunities

We provide the Territory-wide Overcrowding Relief Transfer Scheme, the Living Space Improvement Transfer Scheme, and the Internal and Special Transfer avenues to cater for the changing housing needs of our PRH tenants.

The Territory-wide Overcrowding Relief Transfer Scheme aims to allocate more living space for overcrowded families, i.e. household occupying less than 5.5 square metres of Internal Floor Area per person. We conducted two exercises in 2012/13 to transfer a total of around 520 overcrowded families to larger accommodation. At the end of March 2013, the total number of overcrowded PRH households was reduced to around 3 160, equals to 0.45% of all PRH households, which is lower than our pledge of having less than 0.55% of PRH households being classified as “overcrowded”.

The Living Space Improvement Transfer Scheme offers an opportunity for households occupying less than seven square metres of Internal Floor Area per person to apply for more spacious accommodation. During the year, we conducted one exercise to transfer 1 180 households to bigger flats.

Families with medical or social difficulties can apply for the Internal and Special Transfer Schemes to change accommodation to suit their needs. Applicants may opt to transfer either to another flat in the same estate or to a different estate. During the year, around 3 850 households were transferred under these Schemes.

Close Communication with Stakeholders

To keep stakeholders updated about our latest development and information of their interest, we maintain a range of communication channels to suit the need of different groups.

Engaging the Estate Management Advisory Committees

Acting as task forces for new initiatives and effective communication channels between estate management teams and tenants, the EMACs are provided with funding for partnering with non-governmental organisations (NGOs) to organise activities at estates.

In 2012/13, EMACs partnered with NGOs to deliver some 400 community building functions to promote neighbourliness in PRH estates, of which around 250 of them focused on outreaching services for the elderly.

Engaging the Local Community

Building up sense of community among tenants is very important. During the year, we organised various activities and public events to encourage interaction and experience sharing among fellow residents. These activities and events cover policies and topics related to combating tenancy abuse, the Marking Scheme, rent payment services, safety, hygiene, in-flat maintenance, epidemic prevention, environmental protection and healthy ageing.

On 4 August 2012, during a ceremony officiated by the HA's Chairman Professor Anthony Cheung Bing-leung at Upper Ngau Tau Kok Estate, a large painting made up of 160 small works contributed by various estates was displayed. This artwork highly demonstrates the estates' community spirit.



Gigantic painting made up of 160 small works demonstrating the estates' community spirit

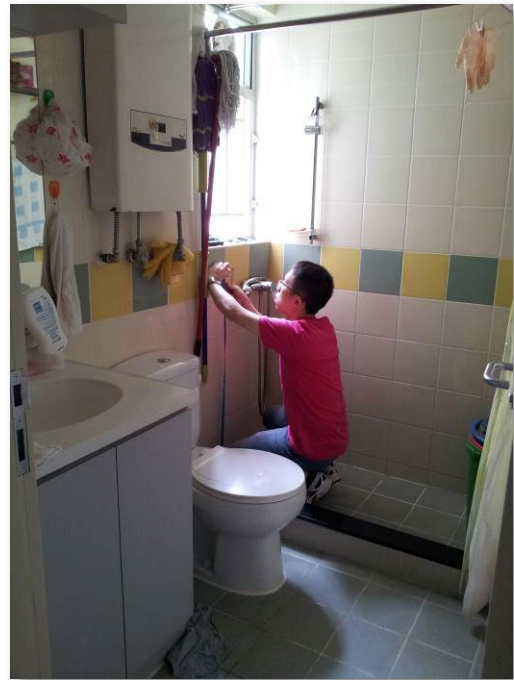
In January 2013, the annual Volunteer for Seniors Day was held, with over 2 700 volunteers, including Professor Cheung, visiting and bringing gifts to around 1 000 elderly tenants in 61 estates. In view of the high risk of falls to the elderly, 12 estate-based fall prevention roadshows were carried out regularly throughout the year, providing useful guidance on how to do exercise safely and prevent risks of falls. For those in need, visits by occupational therapists and volunteers were also arranged after the event.



Volunteer for Seniors Day



Fall prevention roadshows to educate tenants on safe exercises



Home visit by occupational therapists and volunteers to the elderly

In collaboration with the Department of Health, we have launched a community health promotion programme at 14 estates to promote a sustainable living style among PRH tenants through adopting regular physical activities and a healthy diet.



Community health promotion programme award ceremony

Estate Management and Services

Various contractors are involved in the property management, cleansing, maintenance and security services in our estates. Therefore it is crucial to maintain a strong partnership with our estate management contractors to ensure the provision of the best possible services to our tenants.

We review our contractors' work regularly and have established a dedicated central audit team to calibrate our assessment of the performance of Property Services Agents. We have also released the General Specification 2013 to provide comprehensive guidance for contractors by incorporating the latest legislative requirements and international standards. To enhance service standards of business partners, we continuously implement, monitor and review the Maintenance Assessment Scoring System (MASS) in building maintenance and building services maintenance contracts. The trial run on the new MASS for fire services, water supply and lift installations was launched in 2012/13 while that for electrical installations, air-conditioning and room coolers will be launched in third quarter of 2013. The application of MASS for preferential tendering opportunities for building maintenance District Term Contracts had also been implemented in the third quarter of 2012.

To provide formal recognition to our services and estate management contractors with outstanding performance during the year, we held the ceremony of annual Estate Management Services Contractors Awards in March 2013. A total of 25 awards were presented to our services contractors.



Presentation ceremony of the annual Estate Management Services Contractors Awards

Besides listening to workers' concerns through labour unions, we arrange a seminar with the Labour Department to enhance workers' awareness of various labour protection legislation, e.g. the Statutory Minimum Wage Ordinance. In 2012/13, a total of 49 surprise visits to 36 estates under 46 service contracts were conducted. Some 1 400 non-skilled workers were interviewed. We received and addressed a total of 72 enquiries from stakeholders on protection of non-skilled workers' rights against exploitation during the year.

On all HA contracts, we apply and monitor the implementation of initial Statutory Minimum Wage. A revised internal manual and a guideline for contractors on Wage Monitoring System (WMS) were issued, and they would be updated from time to time to incorporate the latest requirements. We regularly conduct review on the effectiveness of the WMS for works and services contracts. A meeting of the “Working Group for Monitoring Wages Payment to Workers” has been held annually to monitor and review the effectiveness of the system.

Initiatives in Office at Work

Workplace Health and Safety

We are committed to maintaining a safe and healthy workplace for our employees and visitors. To this end, we conduct the Department Office Safety Inspection Exercise on an annual basis to identify potential hazards at workplace. About 350 office safety inspections were completed in May 2012.

In 2012/13, 32 injury-on-duty cases related to the HA/HD employees were recorded. Our injury rate per 1 000 employees was 3.8, which is lower than the injury rate of 14.1 per 1 000 employees in all economic activities in Hong Kong in 2012. There was no fatal or occupational disease case reported during the year.

Regular training courses and seminars on topics related to occupational safety and health (OSH) are carried out periodically. Over 160 OSH courses and seminars were conducted for some 5 400 staff members in 2012/13, covering topics such as construction site safety, arboriculture safety, working in confined spaces, first-aid skills, break-away techniques, and how to handle customers with aggressive or violent behaviours. The associated practical guidelines have been created for internal reference, supplemented by regular updates on news, tips and other publications issued by the OSH Council and the Labour Department.



Safety Training for Certified Workers in Confined Space (left), OSH Awareness Training for Total Maintenance Scheme Unit (right)

Staff Development and Participation

We are proud of having a caring and competent team to serve the community and to deliver quality services.

Staff Development

In addition to classroom sessions, study tours, site visits and training programmes, we have developed an online e-learning portal to support the career and personal development of staff. Many learning materials are uploaded regularly onto this e-learning portal for easy access by staff. A dedicated campaign was also organised in October 2012 to promote the use of web courses internally.



Promotion of web courses

Continuing education and development is a key component of our human resource management. Employees are provided with a range of course options to help enhance their technical and managerial competence, as well as develop skills to manage changes in business operations each year. During the year, programmes were offered to staff on the implementation of ISO 14001 in estates, Phase II of the Enterprise Resource Planning system and the Customer Services Management System. Local and overseas management development programmes were planned for staff identified under the succession



Seminar on Visionary Leadership

plan. Seminars, such as “Visionary Leadership” and “Leading Change in Traditional Business” were held for directorate officers and professional staff. To learn from best industry practices, visits to external organisations were also arranged for staff. An average of 27.2 training hours per capita was recorded in 2012/13.

Staff Engagement

To reinforce core values and team spirit among employees, our Core Values Alignment Package has been in operation for the second year in 2012/13, which continued to serve as a useful online tool to exhibit HA's achievement in people-oriented services to staff.

We welcome feedback and suggestions from staff, and maintain open communication channels through focus group meetings, goodwill visits, counseling, interviews, meetings, and gatherings with staff associations. We conduct a one-day workshop every month to encourage a people-oriented caring approach among middle managers by teaching knowledge and skills related to leadership, staff development and motivation.



Care@Work Workshop

Our Employee Wellness Programme addresses the important issues related to personal hygiene and fitness of our staff. The Programme includes information sessions such as seminars on eye care, stress management, family relationship, talks on “work smart live smart”, as well as group activities to enhance health awareness. Making use of our Health Portal on intranet, we are able to disseminate latest health-related knowledge to our staff and their families.



Seminar on Staircase Climbing (top left), Front page of Health Portal (right), Seminar on Stress Management (bottom left)



Visit to Sha Tau Kok Farm

Communicating with the Public

We maintain open and active communication means to hear stakeholders' views and to disseminate our policies, strategies and initiatives regarding planning, construction and management of public housing developments, so as to meet the expectations of the general public. We make use of various publicity and promotional channels to promulgate the HA's policies and new initiatives. These include online platforms, PRH broadcasting, press statements, media interviews, newsletters, display panels, posters, leaflets, brochures, e-publications, videos, radio promos, etc.

Our Housing Department Integrated Communication Centre is responsible for handling public enquiries and requests made by phone calls, email, letters and faxes. Telephone enquiries are mostly answered by our pre-recorded messages system, while about 27% was handled by personal helpdesk staff. During the year we received and answered about 1.54 million telephone calls, around 4 200 per day on average. We also received and handled around 39 400 enquiries and 182 complaints via emails, letters and faxes.

Through our bi-weekly e-newsletter named "Housing Dimensions" and bi-annual publication of "EMAC Newsletter", we share the latest and hot issues targeting at the general public and PRH tenants respectively. We also rely on media channels to facilitate our communication to a wide range of stakeholders. Besides issuing 56 press releases and holding 29 press briefing sessions, we responded to 920 direct enquiries from media and 631 public enquiries/complaints raised first through media in 2012/13.



Press briefing session

Over the years, we have provided tailor-made tours for a large number of visitors from local community, the Mainland and overseas. Many showed a great interest in our reputable PRH programme. Among the 100 visits we hosted in 2012/13, about two third were for visitor groups from the Mainland and overseas. In June 2012, we were honoured to welcome the then President of the People's Republic of China Mr Hu Jin-tao at the Kai Ching Estate construction site.



Mr Hu Jin-tao visited the Kai Ching Estate construction site

Furthermore, we have published and presented papers, and delivered talks regularly in both local and international arenas to share HA's initiatives with the public and the industry.

With the advancement of digital technologies, information technologies are playing a more and more important role in our communication to stakeholders. Our award-winning Housing Authority/Housing Department website provides a comprehensive portal to the public regarding the status of PRH allocation, statistics of housing development, reports on completed projects, as well as specific information for eligible buyers under the Home Ownership Scheme.

Last year, we created a series of award-winning videos themed "Community Impressions" as a vivid way to demonstrate the colourful life at estates through real life stories and some tenants' testimony. Multimedia materials, such as the above series of videos, are available in our website, Public Housing Vista Facebook page, and links through external websites (e.g. Youtube).



To commemorate the 60th anniversary of public housing development in Hong Kong, we have been planning a number of events and activities such as public exhibition, 18th Conference of Housing and Urban Public Corporations in Asia, the EMAC Seminar as well as production of a documentary video on public housing development. We are also launching a series of activities in public housing estates and shopping centres in May 2013 to celebrate our anniversary.

A series of award-winning videos themed "Community Impressions"

Economic Performance

- Financial Performance
- Initiatives in Planning and Construction of New Housing Estates
- Initiatives in Existing Housing Estates
- Initiatives in Office at work



The Housing Authority (HA) always places utmost emphasis on the corporate economic sustainability in its day-to-day business operation. Through maintaining internal operational excellence, investing in building innovations, developing high quality subsidised flats in a cost-effective manner, and optimising our management and procurement practices, we continue to provide quality and affordable housing services in response to the public needs.

Financial Performance

HA is a financially autonomous entity and we generate our own funding to support the public housing development. Our major sources of income include rental of public housing and commercial properties, sales of surplus Home Ownership Scheme (HOS) flats, and income from the funds investment, etc.

Finance Committee (FC) oversees all aspects of the management of funds of HA including investment strategies and position.

FC, with the assistance of its Funds Management Sub-committee (FMSC), reviews HA's investment strategy and position from time to time. FMSC conducts regular reviews of HA's investment strategy, and advises on the selection of funds managers and monitors their performance. Ongoing monitoring of day-to-day operations is conducted by the Housing Department.

To manage the HA's finance in a prudent manner, we conduct monthly review of the financial position and performance of HA, and the financial management practice is reviewed as and when necessary. We also review regularly our financial planning and budgeting process.

Details of the 2012/13 financial statements are provided in our Annual Report 2012/13. Summary of the financial performance is highlighted below:

Consolidated Income Statement in 2012/13

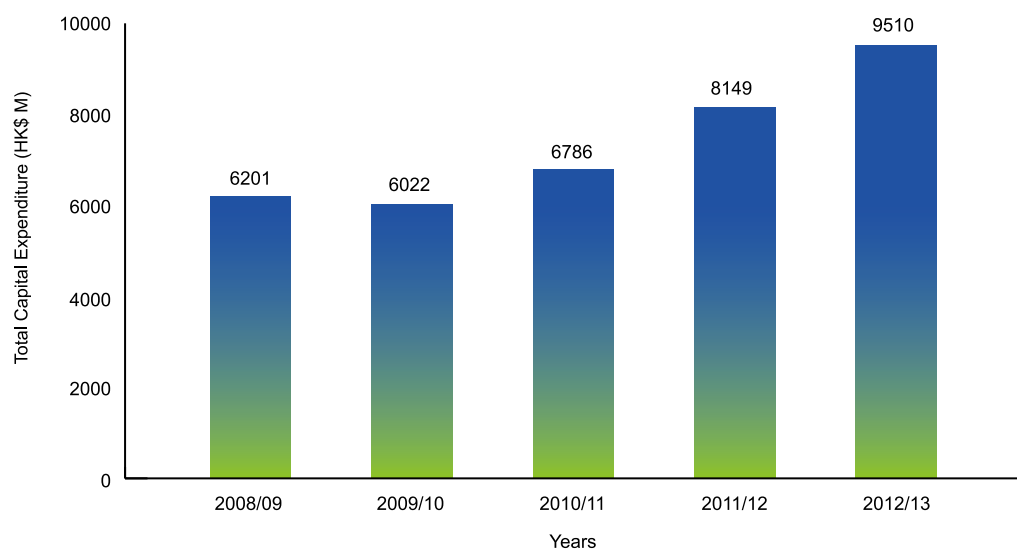
Item Description	2012/13 (in HK\$ M)
Consolidated Operating Account Surplus	1 505
Funds Management Account Surplus	4 277
Agency Account Surplus	40
Surplus for The Year	5 822

Consolidated Operating Account in 2012/13

Item Description	2012/13 (in HK\$ M)
Rental Housing Operations Deficit	(1 234)
Commercial Operations Surplus	738
Home Ownership Assistance Operations Surplus	2 099
Consolidated Operating Surplus before Non-operating Items	1 603
Add: Net Income on Non-operating Items	(98)
Surplus Including Non-operating Items for This Year	1 505

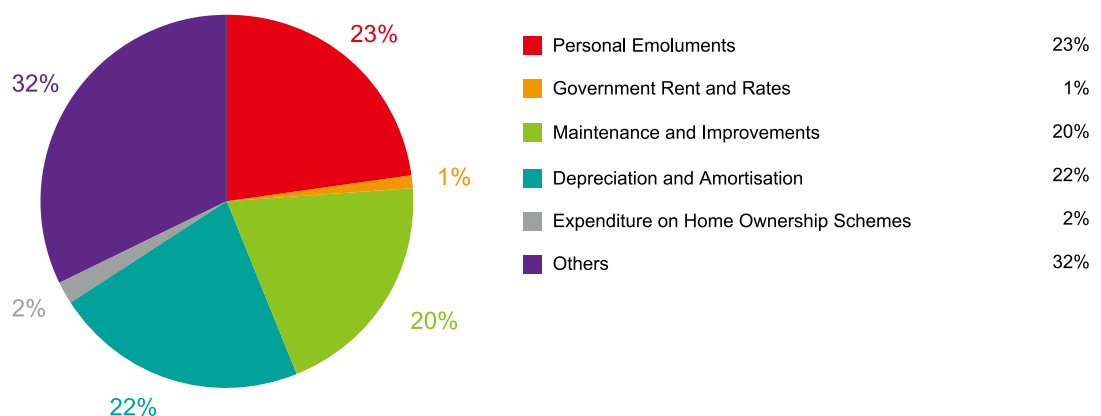
Capital Expenditure for the Fiscal Years 2008/09-2012/13

Items	HK\$ M				
	2008/09	2009/10	2010/11	2011/12	2012/13
Construction	5 845	5 511	6 138	7 291	8 639
Improvement Works	249	384	471	666	682
Computer Systems	107	127	177	192	189
Total Capital Expenditure	6 201	6 022	6 786	8 149	9 510



As at 31 March 2013, the HA's available investment funds stood at HK\$68 989 million, which is a decrease by HK\$246 million as compared to 31 March 2012. During the year, the recurrent expenditure of the HA was HK\$13 427 million, which is 620 million higher than 2011/12.

Analysis of Recurrent Expenditure 2012/13



Initiatives in Planning and Construction of New Housing Estates

Provision of Public Rental Housing

In 2012/13, a total of 13 100 new public rental housing (PRH) flats were constructed, meeting the target of 13 100 flats that we set for the year. A total of seven projects were completed, which include Cheung Sha Wan Estate, Lung Yat Estate, Lower Ngau Tau Kok Estate, Kai Ching Estate (Phases 1 and 2), Mei Tin Estate (Phase 4) and Fung Wo Estate.



Lung Yat Estate



The newly completed
Cheung Sha Wan Estate

Further down the road, we strive to meet our five-year production goal of 79 000 PRH flats beginning from 2012/13. To achieve such ambitious target, we have already identified sufficient and suitable sites for the construction of new PRH estates. In the longer term, we have also identified sufficient land to meet the production target of 100 000 PRH flats in total for five years starting from 2017/18. We will continue to work closely with relevant bureaux and departments to optimise the densities and plot ratios of suitable PRH sites. We will also continue to adopt comprehensive planning and site-specific designs for all new projects to best respond to site conditions, utilise plot ratio and maximise flat production.

Following the Chief Executive's announcement of his 2013 Policy Address on the new initiatives to increase and expedite supply of subsidised housing, the HA hosted a Workshop on Measures to Expedite Construction. With participants from major stakeholders in Hong Kong, we have identified various measures during the workshop to help accelerate the planning, administration and construction processes.



Shatin Area 52

Managing the Home Ownership Scheme

To help the low- to middle-income families acquire home ownership, the Government has established a planning target involving the building of about 17 000 flats over the four years beginning from 2016/17 for sale under the HOS. An average of 5 000 HOS flats will be constructed annually thereafter when more sites are identified, which was one of the core initiatives of our housing policy to cope with the pressing needs of the society.

The modular flat design and Model Client Brief for the new HOS properties have been formulated. The first batch of HOS projects is making satisfactory progress in which the planning and design work are on schedule. The scheme designs and project budgets were approved by HA's Building Committee on 22 June 2012. These flats are expected to be completed in 2016/17, and are currently planned for pre-sale by the end of 2014.

To address the increasing home ownership demand of the society, the Government has also made the decision to sell all of the remaining 832 Surplus HOS flats that were built previously under the Sale of Surplus HOS Flats Phase 7.



The Chairman of the HA's Subsidised Housing Committee Mr Stanley Wong (left) officiated at the ballot drawing for the Sale of Surplus HOS Flats Phase 7

As endorsed by the Subsidised Housing Committee, practices similar to previous HOS, including those on setting flat prices, premium payment, domestic property restriction as well as income and asset limits for White Form applicants, mortgage guarantee, re-sale restrictions, etc. have been adopted for the sale of the remaining surplus HOS flats and will be adopted for the sale of those new HOS flats as well.

Before the completion of the first batch of new HOS flats in 2016/17, the HA has also run an interim scheme to extend the HOS Secondary Market, with an annual quota of 5 000, to White Form buyers, who are allowed to purchase the HA's HOS/TPS flats or flats under the Housing Society's Flat-For-Sale Scheme with premium not yet paid on the Secondary Market.

Optimising Resources Use

Management and Procurement System

The HA endeavors to maintain an open, transparent and cost-effective procurement environment while enhances value-for-money in all of our procurement practices. According to the latest market trend and tender price movements, the construction cost of our superstructure of PRH was on average about 31% lower than that of private sector residential buildings of ordinary quality.

We have kept a close watch to the market cost trend and the adequacy of our project budgets. Under our regular review, the budgets of seven capital works and new works projects have been uplifted in view of the fluctuations in contract price.

To enhance service standards, we continued to improve procurement practices, maintain HA's Lists of contractors, sub-contractors and service providers, and conduct pre-qualification of tenders. A two envelope tendering system has been employed for complex building and piling contracts. Writ search for the lowest three tenderers or top three scorers of works contracts was conducted during shortlisting and tender assessment. We have also informed the contractors in HA's List about the requirement of submitting "Statutory Declaration on not involved in bankruptcy or liquidation or winding up" for list renewal. In 2012/13, we have reviewed the requirement of trade-tested workers in new works and maintenance contracts.

The HA in particular encourages innovation in our procurement practices through the use of the Integrated Procurement Approach (IPA), which allows tenderers to include unique and ingenious design features in their submissions. During 2012/13, we adopted the IPA approach for the Integrated Contract for Construction of PRH Development at Anderson Road Sites. For the Integrated Contract in Kai Tak Area 1B, we have been monitoring the performance of the contractors and services providers engaged. By employing this approach, we are able to deliver better value and higher quality products with improved productivity.

Enhance Efficiency with the Use of Information Technology

We have made full utilisation of some key Information Technology (IT) resources in our design and construction process, including the Radio Frequency Identification (RFID) and Building Information Modelling (BIM).

By using a radio-frequency technology chip and a sensor to record and embed manufacture information, RFID enables us to track the workflow and logistics of four core building components, namely timber doors, metal gatesets, aluminium windows, and precast concrete facades. We have included the use of RFID in the specification for all new building contracts. Moreover, we have also been exploring the application of RFID in selected building services installations, such as fire services and water pump system.

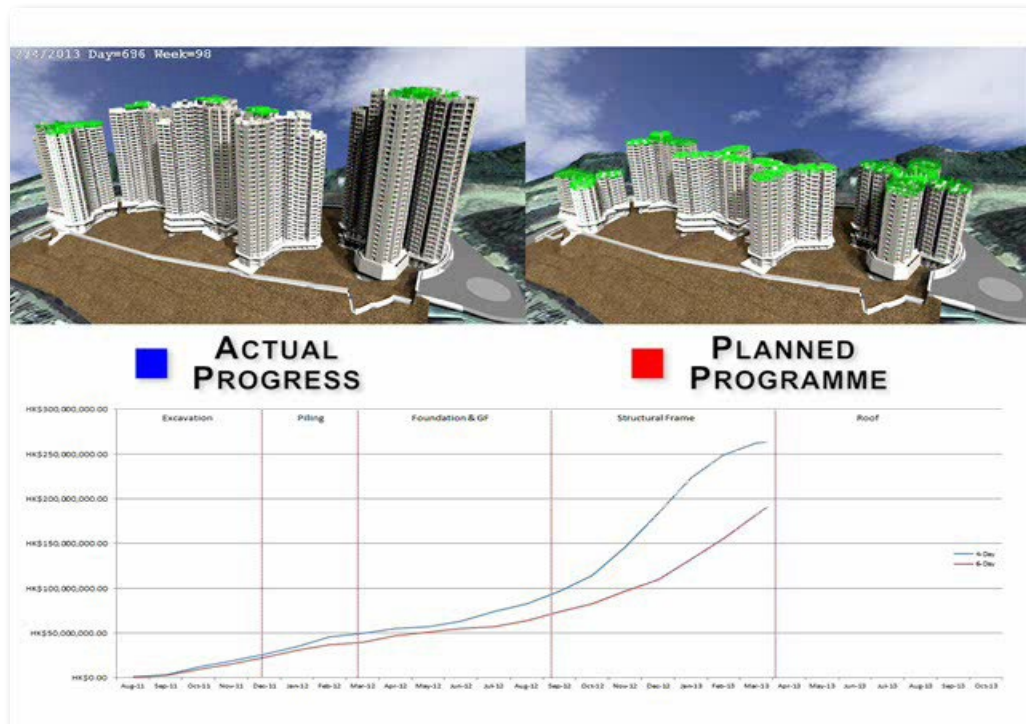


Use of RFID for timber doors identification



Use of RFID for metal gateset identification

The BIM is a useful tool to enable better visualisation and planning through the generation of 3-Dimensional (3-D) data with high level of accuracy. In May 2012, we developed the latest 5-D BIM model, by the addition of two important extra factors: time and contract pricing to facilitate project planning.



Cash flow simulation has been created by the integration of extracted quantities from BIM model, construction programme and cost information

We have adopted the latest 5-D BIM model in the Sha Tin Area 52 Phase 1 Project, which allows us to conduct more accurate and effective cost estimates and assessments of interim payments throughout the building process. With an aim to constantly upgrading BIM's scope, we are conducting studies to widen its applications to cover environmental and energy analysis, as well as to integrate with the Geographic Information System (GIS) which gives us search and enquiry functions to facilitate efficient interaction with the Lands Department's comprehensive base plans. The draft of the Hong Kong HA BIM Manual is being consolidated, and associated staff training on the use of BIM is being conducted.

In October 2012 we rolled out a newly expanded version of GIS, which has been custom-designed for application in developing and managing housing estates. It also includes 3-D analysis capabilities which integrate well with BIM.

Enhancing Building Standards, Quality and Productivity

To ensure building quality and enhance productivity, we always look for opportunities to improve the building standards. Our efforts include:

- reviewed the specification and testing regime for building materials and building services materials, such as those for polymer resin cooking bench and dual flush water closet suites;

- continued the review and enhancement of the General Specification for Maintenance Works to meet the contemporary requirements and standards for building materials;
- monitored the progress of construction-related Research & Development activities; and
- collected feedback of and liaised with stakeholders through regular meetings, forums and seminars to improve building standards and productivity in construction.

Furthermore, the new Product Conformity Certification Schemes (PCCS) were introduced in March 2012 to mandate applicable certification of certain building products. The schemes initially cover seven types of building products, and will gradually expand to three other types of materials as follows:

- fire resistant timber doors
- panel wall partitions
- packed cement for architectural use
- tile adhesives
- ceramic tiles
- repair mortar
- aluminium windows
- *uPVC drainage pipes and fittings (to be included shortly)*
- *close-coupled water closet suites (to be included shortly)*
- *fabric reinforcement (to be included shortly)*

Initiatives in Existing Housing Estates

Facilitate Swift Access to Affordable Housing

HA endeavours to maintain the average waiting time (AWT) for general applicants on the Waiting List (WL) at around 3 years, and around 2 years for elderly one-person applicants. As at the end of March 2013, the AWT was 2.7 years for WL general applicants and 1.5 years for elderly one-person applicants.

Rent Adjustment and Assistance Policies

Under the existing PRH rent adjustment mechanisms, PRH tenants' affordability is the objective basis for determining PRH rent, which is adjusted upwards or downwards in accordance with the changes in PRH tenants' overall household income. HA conducts a review of the PRH rent every two years. It completed the review exercise in mid-2012 and the next rent review will be conducted in 2014.

As at the end of March 2013, PRH rents per flat ranged from HK\$287 to HK\$3 877 per month. The average monthly rent is about \$1 540. PRH rents include rates, management fees and maintenance costs.

To help tenants suffering from temporary financial difficulties, our Rent Assistance Scheme (RAS) offers a rent reduction of either 25% or 50% depending on tenants' individual circumstances. As at the end of March 2013, around 12 500 families were benefiting from RAS.

Optimising Resources Use

To react swiftly to the ever-changing social and residential conditions, the HA has adopted various measures to optimise occupancy of PRH flats on a timely basis.

Curbing Tenancy Abuse

To ensure the limited resources are allocated to those with the genuine needs, HA has set up various policies and procedures to prevent tenancy abuse. Firstly, we conduct regular vetting of the income and asset declarations of some 223 000 tenancies submitted to ascertain the amount of subsidy that individual sitting tenants are entitled to receive. Secondly, we perform comprehensive checks into income and asset declarations of more than 5 000 tenants each year, which are either selected on a random basis, or with whom concerns have been raised.

Furthermore, home visits to PRH tenancies were conducted by frontline staff in biennial cycle. Our Public Housing Resources Management Sub-section (PHRM) continues to conduct rigorous checks on suspected cases of abuse referred by frontline management and the public or by random selection. In 2012/13, PHRM has performed in-depth investigations on about 8 700 occupancy-related cases to ensure rational allocation of limited public housing resources. Out of this effort, some 490 PRH flats were recovered from tenancy abuse in 2012/13, which has increased from 470 flats in 2011/12.

The core message of cherishing public housing resources was widely promoted through a wide diversity of publicity channels. These include newsletters, posters, leaflets, banners, promotional video, the HA/HD website, the Housing Channel, advertisement and roving exhibitions in selected estates.



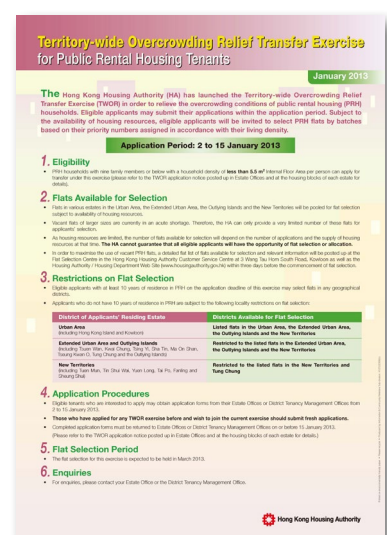
Poster to promote cherishing public housing resources

Territory-wide Overcrowding Relief Transfer Scheme and Living Space Improvement Scheme

Two exercises of the Territory-wide Overcrowding Relief Transfer Scheme (TWOR) were carried out in August 2012 and January 2013, and around 520 families in total have benefited from the opportunity of moving into an accommodation that well meets the household size in the year.

“Overcrowded” households refer to those whose average living space is below 5.5 square metres of internal floor area per person. The number of “overcrowded” households dropped to around 3 160 by the end of March 2013, representing merely 0.45% of all PRH households.

Moreover, an exercise under the Living Space Improvement Transfer Scheme was conducted, and a total of 1 180 families were relocated to larger flats during the year by the end of March 2013. This Scheme aims to offer relief to those households that occupy an internal floor area per person of less than 7 square metres.



Application for TWOR

Operation with Cost-effectiveness

Good maintenance of our PRH estates is the prime consideration in providing quality service and functions to our facility users. During the year, we completed the investigation works for three estates close to 40 years of age under the Comprehensive Structural Investigation Programme to ascertain the structural safety of the buildings and assess the cost-effectiveness for revitalisation or redevelopment. Under the Total Maintenance Scheme and Estate Improvement Programme, we have successfully implemented repairs and renovation works in 30 and 10 PRH estates respectively. We have also completed the majority of the improvement works in existing estates to meet the standards stipulated in the Design Manual: Barrier Free Access to cater for the needs of the disabled. Furthermore, we have replaced 103 old lifts with modernised ones to improve accessibility and have upgraded the Closed Circuit Television Security System from black and white to colour monitors for 23 estates.

Under the Lift Addition Programme, the works on adding lift towers and lifts, escalators, and footbridges in 26 estates were completed as scheduled. This programme will be rolled out in other estates which have a need for lift facilities. Besides, we conducted sampling inspections of 715 existing lift installations and 45 escalator installations to regulate the use and operation of lifts and escalators of HA.



Tenants of Lai King Estate benefit from the addition of new lifts

To assist our tenants for proper caring of their individual flats, we had carried out the Responsive In-flat Maintenance Services (RIMS) in all PRH estates.



Implementation of RIMS

Housing Redevelopment

The aged portion of Pak Tin Estate and Pak Tin Commercial Centre were identified for redevelopment in the second quarter of 2012, and it is expected to be able to gain a net increase of about 2 000 PRH flats upon redevelopment. As a step forward, HA has established a dedicated Redevelopment Potential Action Team in 2013. The Action Team is responsible to conduct preliminary assessment on the development potential of the aged estates in the wider district context, with a view to formulating a redevelopment programme for implementation.



Pak Tin Estate

Optimising Resources of Commercial Properties

The achievement against the targeted key performance indicators (KPIs) of the commercial portfolio was carefully monitored. As at the end of March 2013, the vacancy rate, rent arrears rate and operating expenditure to income ratio (as listed below) were well within the KPI targets.

Achievements as related to KPIs in 2012/13	Percentage
Vacancy Rate	2.1%
Rent Arrears Rate	1.5%
Operating Expenditure to Income Ratio	58.6%

As at the end of March 2013, the HA operates 29 major shopping centres across Hong Kong, which support the daily living needs of our thousands of public housing residents.

We have also procured external facility management services to supplement our in-house resources to manage the commercial premises in a more cost effective manner. During the year, we have contracted out the facilities management services of newly completed commercial properties including the Domain, Shek Kip Mei Phases 2 and 5 and Lower Ngau Tau Kok Estate.



Commercial facilities in the Domain



Commercial facilities in Shek Kip Mei Phases 2 and 5



Commercial facilities in Lower Ngau Tau Kok Estate

In terms of asset enhancement, HA's Commercial Properties Committee has approved and consolidated the five-year rolling programme for 2013/14 to 2017/18 to prioritise major asset improvement works. Under this five-year ambition, upgrading works on retail facilities in On Kay Court and Lung Poon Court, and the major improvement earmarked for Ping Shek, Wah Fu (I) and Wah Fu (II) Estates are in progress.



Upgrade of retail facilities in On Kay Court and major improvement works in Ping Shek Estate

To strengthen the quality service of car parks, we have installed an electronic payment system by Octopus in 86 car parks, plus electric vehicle charging facilities in four estates.

In order to enhance the quality of our retail portfolio for nourishing a better business environment, we have endeavoured to enhance the attractiveness of the commercial properties. We have conducted market re-ordering work in Lai Yiu Estate and Kwai Shing West Estate – which involves grouping together some vacant shop stalls in these two estates for leasing to single takers. Moreover, we also strengthened the leasing strategies and we successfully completed the tenants sourcing for the less popular retail premises in Cheung Ching, Cheung Shan, Fu Shan, Wah Fu (I) and Wah Fu (II) Estates.



Electronic payment system in
Choi Ying Estate Carpark

Seizing the opportunity of the increasing demand for kindergarten premises, we succeeded in letting out the vacant premises at Kam Fung Court, Tin Lai Court, Yuk Ming Court, Wah Fu (I) Estate, Wah Kwai Estate and Lung Poon Court as kindergartens.

Moreover, we have enhanced our leasing strategies to introduce different trade categories, such as convenience stores, personal stores and fast food outlets at some of our older estates. By introducing some new brands in these estates, tenants from other trades are in turn attracted to rent other previously vacant premises. This was found to be a successful strategy to help us optimise the use of our retail facilities in a more competitive manner.

Over the year, we have launched a full range of festive and seasonal marketing programmes in our shopping centres. Altogether we have organised 61 promotional events including mini-performances, carnivals, variety shows, game booths and gift redemption, etc, which brings significant increase of footfall to our shopping centres.

As revealed from our customer survey, over 50% of visiting residents were satisfied with the facilities. The survey findings will be used for performance benchmarking on the management and maintenance of retail facilities in the future.



Festive and seasonal marketing
programmes in our shopping centres

To better manage the retail premises, standard tenancy agreements and management guidelines were revamped and promulgated for staff's compliance and reinforcement of management actions from time to time.

Feature Story: Domain – a bigger and better shopping experience

The Domain, our new mega-mall in East Kowloon, made its grand debut in December 2012 after years of careful planning and development. With a total lettable area of 23 000 square metres, the Domain is positioned as HA's largest and most integrated retail, lifestyle and entertainment venue for all generations.

As at March 2013, about 99% of lettable area in the Domain has been successfully let, and a wide diversity of chic and trendy shopping and dining options are offered to cater for different taste and needs. A Small Retail Zone has also been established to provide a platform for small business operators, youth entrepreneurs and social enterprises to conduct business.

A series of creative publicity plans and tailor-made promotional activities in partnership with the commercial tenants of the Domain has been formulated. We expect to continue to arouse public awareness of the mall and thereby to build up shoppers' loyalty and boost sales.



Domain, serving as a focal point of the district, attracts a lot of visitors from the local community



Wide diversity of shopping and dining options in the Domain

Initiatives in Office at Work

Management and Procurement System

To uphold HA's management best practice, we continue to implement various ISO management systems and have acquired certifications including ISO 9001 on quality management, ISO 14001 on environmental management, ISO 50001 on energy management, ISO 31000 on risk management and ISO 26000 on corporate social responsibility. We also require our contractors to be ISO 9001, ISO 14001 and OHSAS 18001 (OHSAS – The Occupational Health and Safety Advisory Services) certified.

To exercise better building control measures, with reference to the practices of the Building Department, on HA's new construction projects and existing properties, we have processed 621 building submissions and 818 consents for new construction projects. A total of 27 occupation permits and 141 structural certificates of completion for new construction projects have been issued. In addition, we have handled 2 084 submissions and 1 053 consents for Alteration and Addition Works, as well as giving 1 429 advice to the Licensing Authorities within the statutory or pledge periods.

In order to create competition among contractors to drive for a more cost-effective procurement environment, we perform regular review of the adequacy of HA's List of Contractors and to encourage more market players to apply for inclusion in our List. We have also reviewed the price-to-technical ratio in the tender scoring system in order to ensure value-for-money in our procurement. To strengthen our procurement practice, we have reviewed the "Guide to Registration of Works Contractors and Property Management Services Management Services Providers" regularly. We also conducted briefing sessions for contractors and professional services providers on tender assessment systems and specific contract requirements from time to time to enhance their awareness of HA's procurement principle and systems.

Enhance Efficiency with Information Technology

HA has utilised various IT solutions to help improve operational efficiency and customer experience in the public housing estates:

- The Phase II of the Enterprise Resource Planning system was launched in October 2012 as scheduled, and helps HA to modernise our enterprise applications for improving overall effectiveness.
- We have operated and enhanced the Housing Construction Management Enterprise System (HOMES) — an online collaboration and knowledge management platform for enhancing the efficiency in managing our construction projects. The system eases the project teams to get access to essential information on planning, programme management, budgeting, payments and knowledge management.

The screenshot displays the HOMES system interface. On the left is a navigation menu with options like 'My Workplace', 'HA', 'DC', 'Main', 'Project', 'Contract', and 'My Projects'. The 'General/Contract' option is highlighted. The main area is divided into two sections: '2. Project General Information' and '3. Contract Summary'.

2. Project General Information

Notes:

- Only the Project Manager's Representative, PM Unit and the Project Admin user of the team will have access to the Edit Buttons for this page.
- Please state in the "Remarks" field what is excluded from the Net Site Area.
- Gross Site Area (For Land Database) : Exclude areas not vested to HA and sites that will be handed back to government upon completion of development.
- Please explain in "Remarks" if "Gross Site Area(for Land Database)" is different from "Gross Site Area".
- Please include Date of Deletion from Programme (i.e. the relevant SOM or SPC etc. Meeting Date).
- Access rights: This page can be accessed by: 1) All DCD staff; 2) All non-DCD staff with a HOMES account; 3) Consultants of DCD with a HOMES account

Items	
2.1 Project Code	KT13HR
2.2 Project Title (English)	Choi Wan Road S
2.3 Project Title (Chinese)	
2.4 Phase No	
2.5 Estate/Court Name (English)	
2.6 Estate/Court Name (Chinese)	
2.7 District	Kwun Tong
2.8 Project Status	a) Production For b) Status : c) Remarks : (Not)
2.9 Project Stage	Building (after co
2.10 Development Type	New Site
2.11 Project Nature	Rental
2.12 Site Area	a) Gross Site Area b) Net Site Area c) Gross Site Area
2.13 Plot Ratio (same as TCU submission)	Domestic: Non-domestic:
2.14 Re-phase / Re-code History	History
Last updated By kaivineung on 19/05/2009 12:02	

3. Contract Summary

Notes:

- All data under this section is captured from the Contract module. To edit these data, please go to the respective link under "Contract Type" below.

Contract Type	Contract / Tender No	Other projects sharing the same contract	Contract Manager	Contractor	Contract Stage	Contract Status
3.1 Works Contract						
Building Works	20070054	KT14NR	CA/3	China State Construction Engineering (Hong Kong) Limited	Construction Stage	In-force
Building Works	20070022	KT14NR	CSE/2	China State Construction Engineering (Hong Kong) Limited	Maintenance Period & Final Account Settlement Stage	In-force
Material Testings	QW20070006	KT15NR-01 KT14NR	SSE/8	Fugro Technical Services Ltd.	Maintenance Period & Final Account Settlement Stage	In-force
Building Works	20080014	KT09NR KT09NR-02	CA/3	Hsin Cheng Construction Company Limited	Construction Stage	In-force
Material Testings	QW20080029	KT14NR YL2NR	SCE/NTM	ETS-Testconsult Ltd.	Construction Stage	In-force
3.2 Non-Works Contract						
Consultancy - Structural Engineering	QW20050011	KT14NR	CSE/2	Sure Wilson Limited	Maintenance Period & Final Account Settlement Stage	In-force

Interface of HOMES system

- The system development for the Customer Services Management System was accomplished. The roll out of the system to all HA's PRH estate offices has been commenced in February 2013 and will be completed by August 2013 in six batches.
- We have obtained ISO 20000 certification for the management of IT services in April 2012, and this helps us to benchmark ourselves to the best practices in accordance with the relevant international industry standard and guidelines. Moreover, to ensure IT security, we have started to implement IT security management in compliance with the ISO 27001 IT security standard since April 2012.
- We are further exploring the use of e-tendering for service contracts. Eight building contracts and four foundation contracts have adopted the use of "electronic tender booklet" system on a trial basis.
- We have adopted GIS in development planning, management of centralized drawing records and for location identification in maintenance works orders.

Through adopting "Green IT" solutions at our data centre, computer usage and document storage, we managed to achieve energy and resource saving in our operations and facilities.

With the completion of the IT Strategy Consultancy Study, we have formulated 10 programmes of IT projects for further development and implementation in the next five to 10 years. These include modernising the public housing application and allocation processes, and extending mobile usage across our operation.

Case Study 1: A Step Forward to Energy Management – Our Roadmap on Adopting ISO 50001 Energy Management System (EnMS) Standard

- Background of the ISO 50001 EnMS Standard
- Our Preparation to Adopt the Standard
- Our Implementation Targets, Milestones and Achievements
- Our Future Planning

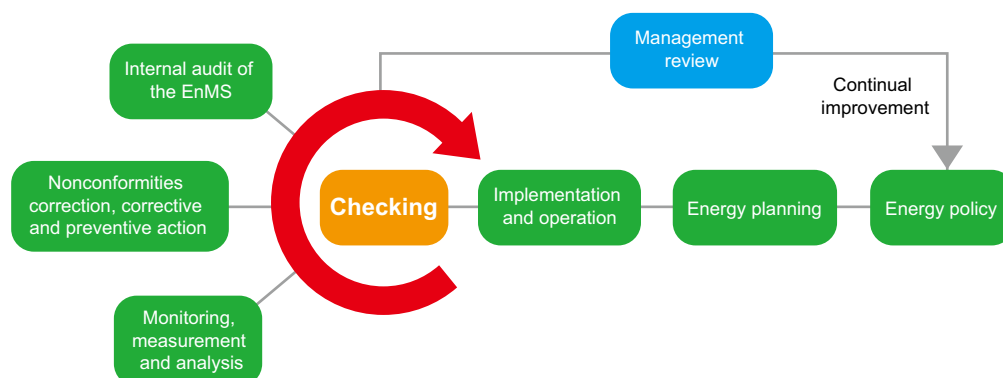


Energy management has become a global issue because of the urgency to reduce greenhouse gas emissions. To support the government's call for reducing the local energy intensity of at least 25% by 2030 (with 2005 as the base year), we have implemented a number of energy saving and efficient initiatives during design, construction and management of our public rental housing (PRH) estates. As a forward-looking government department, we have rolled out an EnMS adopting ISO 50001 framework to provide a systematic approach to strengthen and improve our energy management and performance since December 2011.

Background of the ISO 50001 EnMS Standard

The internationally recognised ISO 50001 standard was officially published in June 2011. It enables organisations to establish system and process to enhance their energy performance by improving energy efficiency and reducing consumption. This helps reduce greenhouse gas emissions and thus lessens the impact of global warming and other related environmental problems. By adopting ISO 50001 standard, organisations can also save the energy expenses as well as demonstrate their corporate commitment in sustainability.

Similar to other management system standards, ISO 50001 is based on the plan-do-check-act approach to achieve continual improvement in energy performance. The relationship between its core elements is illustrated below.



The core elements of ISO 50001 EnMS Standard

Our Preparation to Adopt the Standard

To prepare for the adoption of ISO 50001 standard, we started to equip ourselves in early 2011 prior to the official launch of the standard. These include organising training workshops to provide relevant knowledge for staff as well as conducting gap analysis and technical review for some of our operations with reference to the draft ISO 50001 standard to review our existing energy management practices.



Over 20 colleagues attended the ISO 50001 foundation training course prior to the launch of the standard

Our Implementation Targets, Milestones and Achievements

As a pioneer of the Housing Department, the Development and Construction Division (DCD) has rolled out its EnMS in December 2011 following the promulgation of the standard. We organised six training sessions in early May 2012, covering around one-third of the DCD's colleagues to further enhance their awareness in energy management.

Since the building services installations account for the major portion of our total energy consumption in communal area of residential buildings, we focus on the energy performance of the communal building services installations in public housing blocks during the initial stage of our EnMS implementation. A baseline for energy consumption of 30kWh/m²/Annum was established for building services installations in the communal areas of domestic blocks. Such energy baseline will be applied to all our new projects for comparison and for design adjustment to achieve the target performance if necessary.

During the design stage of each project, we will estimate the communal energy consumption for each domestic block and compare against the energy baseline. In case of exceeding the baseline, we will review the design and identify room for improvement to lower the energy use. We will measure the actual communal energy consumption and compare against the estimated figure after mass intake.

It should be noted that in 2000/01 before implementing the EnMS, we have already carried out a number of energy saving measures to significantly reduce around 40% of the electricity consumption in communal areas of a typical public housing block, from 1 032 kWh in 2000/01 to 596 kWh in 2010/11. These measures include:

- Passive Design Approach to save energy consumption with utilisation of natural ventilation and lighting;
- Optimising lift number and capacity;
- Employing light weight lift car decoration;
- Applying high-efficient lift power system;
- Employing high efficiency T5 fluorescent tube;
- Employing high efficiency electronic ballast;
- Adopting two-level lighting system; and
- Adopting electronic variable speed drive control in fresh water booster pump system.



ISO 50001 certificate for DCD

With the EnMS in place apart from implementing the above measures, we are planning to widely adopt Light Emitting Diode (LED) light fittings in our PRH estates. It is anticipated that we could further cut down the electricity consumption in communal areas to 536 kWh in 2014/15.

With the conscientious efforts of our staff, DCD achieved ISO 50001 certification with the scope of “Planning, Design, Project Management and Contract Administration for the Construction of Public Housing” in June 2012. We are delighted that we were the first organisation in Hong Kong obtaining the ISO 50001 certification in residential building design.

Our Future Planning

Estate Management Division has also embarked on ISO 50001 EnMS implementation in Kwai Shing West Estate as a pilot estate since January 2013. The estate was awarded the ISO 50001 certification on 27 June 2013. We are preparing to implement ISO 50001 EnMS and achieve certification for all PRH estates in the coming two years with the aims of raising energy efficiency in all the public facilities of PRH estates and also supporting energy saving and carbon reduction in Hong Kong.

In addition to improving our energy performance, we are planning to require some of our listed construction contractors to obtain ISO 50001 certification. A series of engagement activities, including workshops, meetings, questionnaire surveys, etc. have been conducted to seek the views of relevant contractors to implement EnMS in construction sites. As a leader in the industry to building sustainable living environment for the society, we will continue to facilitate our partners to understand and implement the EnMS.

Case Study 2: Food Waste Has Its Way

- Reducing Food Waste at Source
- Food Waste Recycling in Six Estates
- Our Way Forward



Everyday, there is over 3 500 tonnes food waste produced in Hong Kong while a large portion comes from households. The disposal of food waste imposes heavy burden to the limited landfill spaces and becomes one of the key factors contributing to its rapid depletion.

A key driver to food waste avoidance and minimisation is public education and engagement. Since 2005, we have been partnering with green groups in the Green Delight in Estates (GDE) programme, which aims to raise environmental awareness among public rental housing (PRH) residents and to instil a culture of protecting and improving the environment. For 2012/13, the theme of the GDE programme was Reduction of Municipal Solid Waste to echo with the government's prevailing policy. Estate-wide campaigns with in-depth educational programmes have been organised in order to encourage the community to actively take part in food waste reduction.

Reducing Food Waste at Source

To promote the message on cherishing food, we conducted an estate-wide programme, "Cherish Food with Rewards" Campaign, in all PRH estates from 15 October 2012 to 4 November 2012. Tips on reducing food wastage were promoted through posters and website. Residents were encouraged to make pledges on cherishing food.

In addition, a "Food Waste has Value" Green Recipe Competition was held from 18 February to 17 March 2013 to solicit smart cooking recipes from residents on reducing food wastage. Around 100 participants including the competition winners and their families, representatives from HA and green groups participated in the final judging and award ceremony held in May 2013. The Secretary for Transport and Housing and the Secretary for the Environment also shared their food saving tips with the participants, and demonstrated how to cook spring rolls from left-over cooked ingredients of Chinese soup.



The Secretary for Transport and Housing and the Secretary for the Environment demonstrated how to cook spring rolls from left-over cooked ingredients



"Food Waste has Value" Green Recipe Competition Awards Presentation Ceremony



Food Waste Recycling in Six Estates

Under the GDE programme, food waste recycling has been carried out in six selected estates. On-site food waste recycling for compost using micro-organism has been conducted in Lam Tin Estate since December 2012. Off-site food waste recycling was commenced in November 2012 for Lai Kok Estate, Tin Wah Estate and Tin Tsz Estate, and in December 2012 for Nam Shan Estate and Ching Ho Estate. Food waste was transported to a centralised food waste recycler in Yuen Long for conversion mainly into fish feed. As at the end of March 2013, 875 households have registered to participate in the scheme.

Regarding the food waste collection process, either a self-help mode or “Bucket Exchange” mode was adopted in the six estates. Tin Wah Estate, Tin Tsz Estate and Nam Shan Estate adopted the self-help mode whereby the residents put their food waste directly into large bins for collection by the food waste recycler. For Lai Kok Estate, Ching Ho Estate and Lam Tin Estate, “Bucket Exchange” mode was adopted whereby the residents brought their buckets of food waste to the ground floor of each block to exchange for clean buckets from the security guards.

Off-site Food Waste Recycling – Self-help Collection in Tin Wah Estate, Tin Tsz Estate and Nam Shan Estate



Residents emptied the buckets of food waste into large bins located next to their residential blocks



Food waste recycler collected the food waste for off-site conversion into fish feed

Off-site Food Waste Recycling – “Bucket Exchange” Collection in Lai Kok Estate and Ching Ho Estate



Residents brought their buckets of food waste to the ground floor of each block to exchange for clean buckets



Cleansing workers transported the buckets of food waste to refuse collection point and emptied it into large bins



Food waste recycler collected food waste for off-site conversion into fish feed

On-site Food Waste Recycling Using Micro-organism in Lam Tin Estate



Cleansing workers added micro-organisms in food waste to facilitate fermentation for around 2-3 weeks



Cleansing workers put the fermented food waste in an open area and buried it in soil for composting for around 1.5-2 months

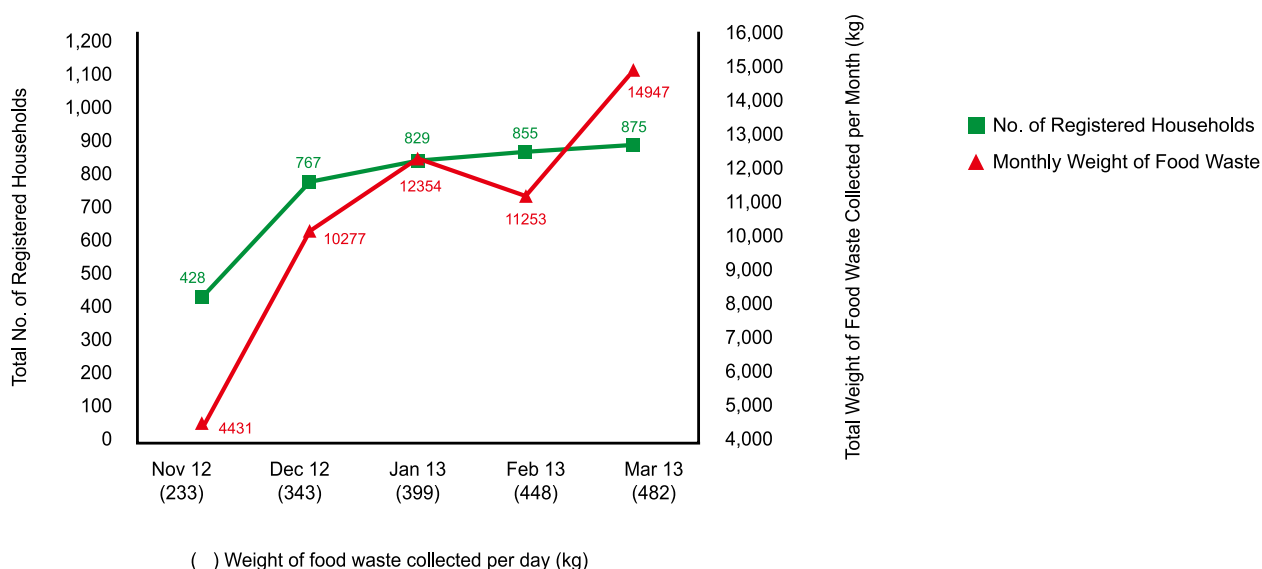


Cleansing workers dug out the compost from soil and stored it for usage at the community farm in the estate

With the active participation of residents in the food waste recycling scheme, we have collected increasing food waste per month for recycling, reaching around 15 000 kg in March 2013. The results of the scheme as at the end of March 2013 are summarised below.

Weight of food waste collected per participating household per day in March 2013	0.56 kg
Weight of food waste collected per day in March 2013	482 kg
Weight of food waste collected in March 2013	14 947 kg

Total Number of Registered Households and Weight of Food Waste



Our Way Forward

It is notable that Hong Kong's municipal solid waste consists of a significant portion of food waste, much of which needs not be disposed of in landfills. We believe that by partnering with community groups, substantial progress can be made to gain public's support for food waste reduction. Further estate-wide campaigns will be held to encourage residents to save food. Besides enhancing food waste recycling in Lai Kok Estate, Tin Wah Estate, Tin Tsz Estate, Nam Shan Estate, Ching Ho Estate and Lam Tin Estate, we will extend off-site recycling to six more estates under the GDE programme. Riding on the successful results in 2012/13, we will continue our efforts in promoting food waste reduction and recycling to encourage active participation of PRH residents.

List of Awards and Community Recognitions

- Construction and Maintenance
- Environmental and Social
- Corporate



We commit to improving our sustainability performance during the planning, construction, management and maintenance of local public housing. Over the years, we received a number of awards and honours that not only recognise our contributions to various sustainability aspects but also encourage us to strive for excellence. Our major achievements in 2012/13 are outlined below.

Construction and Maintenance

Awards/Winning Projects:

Asia Pacific Federation of Project Management Project Management Achievement Awards 2012

High Commendation in Construction/Engineering Category – Choi Wan Road Public Housing Development

Organisers:

Asia-Pacific Federation of Project Management



Awards/Winning Projects:

Hong Kong Institute of Project Management Project Management Achievement Awards 2012

Winner (Construction/Engineering) – Choi Wan Road Public Housing Development

Organisers:

Hong Kong Institute of Project Management



Awards/Winning Projects:

RICS Hong Kong Awards 2013

Merit Award (Innovative Award of the Year) –
Comprehensive Structural Investigation Programme

Organisers:

Royal Institution of Chartered Surveyors (RICS)



Awards/Winning Projects:

Quality Building Award

Grand Award – Redevelopment of Lam Tin Estate Phase 7

Organisers:

Jointly organised by nine professional organisations in Hong Kong



Awards/Winning Projects:

HKQAA Sustainable Building Index

Verified Mark – 11 public rental housing (PRH) blocks in
Sau Mau Ping South, Sheung Lok and Tin Chak Estates

Organisers:

Hong Kong Quality Assurance Agency (HKQAA)



Awards/Winning Projects:

Autodesk HK BIM Awards 2012

Pioneering BIM for Quantity Surveying

Organisers:

Autodesk



Environmental and Social

Awards/Winning Projects:

Competition on Source Separation of Waste 2011/12

Award for Cooperative Partnership – Yau Lai Estate

Award for Promotion and Silver Award – Wan Tsui Estate

Award for Promotion and Bronze Award – Siu Sai Wan Estate

Bronze Award – Lei Yue Mun, Lok Wah (South), Tin Yuet, Hing Wah (I), Ma Hang, Tsui Lok, Lei Muk Shue, Lai Yiu, Fortune, Wang Tau Hom, Kwong Fuk, Lower Wong Tai Sin (II) and Tai Hang Tung Estates

Certificate – Hong Kong Housing Authority (HA) Headquarters, Lei Muk Shue Shopping Centre

Organisers:

Environmental Protection Department, Hong Kong
Association of Property Management Companies, and
Hong Kong Productivity Council



Awards/Winning Projects:

FuturArc Green Leadership Award 2012

Choi Wan Road Public Housing Development

Organisers:

Building and Construction Interchange Asia



Awards/Winning Projects:

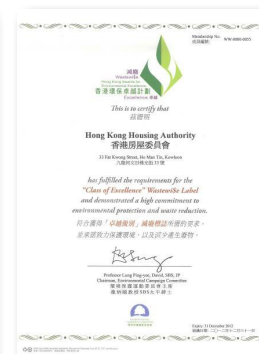
Hong Kong Awards for Environmental Excellence

“Class of Excellence” Wastewi\$e Label – HA

Top Three Organisations Achieved Cumulatively the Most Number of Goals in Wastewi\$e Label – HA

Organisers:

Environmental Campaign Committee



Awards/Winning Projects:

Hong Kong Green Awards 2012

Platinum Award (Green Management Award) – HA

Platinum Award (Green Purchasing Award) – HA

Stakeholder Engagement Award (Corporate Green Governance Award) – HA

Organisers:

Green Council



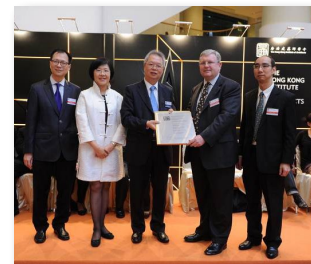
Awards/Winning Projects:

Hong Kong Institute of Architects Special Annual Awards

Carbon Emission Evaluation

Organisers:

Hong Kong Institute of Architects



Awards/Winning Projects:

Hong Kong Green Building Council Green Building Award 2012

Grand Award – Recycling and Reuse of Marine Mud for Building Materials

Organisers:

Hong Kong Green Building Council



Awards/Winning Projects:

Hong Kong Institute of Landscape Architects 2012

Design Award

Sau Mau Ping South Estate

Organisers:

Hong Kong Institute of Landscape Architects



Awards/Winning Projects:

Hong Kong Flower Show 2013

Gold Award for Outstanding Exhibit (Landscape Display) – HA

Organisers:

Leisure and Cultural Services Department



Awards/Winning Projects:

Best Fall Arresting Safety Enhancement Program for Working at Height

Gold Award – Shek Yam Estate

Organisers:

Occupational Safety and Health Council



Awards/Winning Projects:

Hong Kong Barrier Free Shopping Malls Appreciation Awards 2011-12

Grand Award – Yau Lai Shopping Centre

Organisers:

Hong Kong Rehabilitation Power



Awards/Winning Projects:

HKQAA-HSBC CSR Advocate Mark

Achieved full score of 5.00 – Development and Construction Division

Organisers:

HKQAA and the Hongkong and Shanghai Banking Corporation Limited (HSBC)



Awards/Winning Projects:

Caring Organisation 2012/13

5 Plus Consecutive Years Caring Organisation Logo – Housing Department (HD)

Organisers:

Hong Kong Council of Social Service



Awards/Winning Projects:

Web Care Award 2011-13

Jade Award – HA/HD Website

Organisers:

Internet Professional Association



Corporate

Awards/Winning Projects:

2012 International Annual Report Competition (ARC) Awards

Bronze Award (Non-profit Organisation: Housing) – HA Annual Report 2010/11

Organisers:

MerComm, Inc.



Awards/Winning Projects:

2012 Astrid Awards

Gold Award (Not-for-Profit Organisations) – HA Annual Report 2010/11

Organisers:

MerComm, Inc.



Awards/Winning Projects:

Mercury Excellence Awards 2012/2013

Bronze Award (DVDs/Video: Special Project) – “Community Impressions: Reminiscences of Wah Fu”

Honours Award (DVDs/Video: Special Project) – “Community Impressions: Feeling Groovy at Nga Ning”

Organisers:

MerComm, Inc.



Awards/Winning Projects:

2013 Questar Awards

Silver Award (Corporations: Special Project) – “Community Impressions: Homeward Bound to Tsui Ping”

Bronze Award (Non-profit Organisations: Documentary) – “Community Impressions: The Show Goes on at Shek Kip Mei”

Organisers:

MerComm, Inc.



Awards/Winning Projects:

New York Festival 2013

Finalist Certificate (Society & Social Issues) – “Community Impressions” video series

Organisers:

Limited Liability Corporation



Awards/Winning Projects:

Top 10.hk Website Competition 2012

One of the top five outstanding websites in the category of “Government Departments”

Organisers:

Hong Kong Internet Registration Corporation Limited



Awards/Winning Projects:

Capability Maturity Model Integration for Software Development

Maturity Level 3 Version 1.3

Organisers:

Software Engineering Institute,
Carnegie Mellon University, USA



Previous Targets



During 2012/13, we have set 60 sustainability targets in relation to environmental, social and economic aspects. All are fully met. Details and progress of these targets are provided below.

Environmental Awareness Raising Targets	Progress
Review and monitor environmental awareness in Public Rental Housing (PRH) by liaising with green groups to conduct surveys on PRH residents.	Fully Met
Enhance environmental awareness of Housing Authority (HA) staff by reviewing and implementing training and publicity strategies.	Fully Met
Collaborate with green groups to conduct environmental awareness programmes in the PRH.	Fully Met
Enhance environmental performance of contractors on site.	Fully Met
Promote the PRH tenants' awareness and participation related to waste separation at source, waste reduction and green management initiatives.	Fully Met
Enhance staff environmental awareness and knowledge by organising seminars, displaying environmental issues at the HA Headquarters' (HAHQs) Green Corner and organising campaigns.	Fully Met
Enhance community awareness on environmental protection by launching campaigns to promote waste reduction and recycling in PRH estates and organising joint programmes with green groups and Estate Management Advisory Committees.	Fully Met

Energy Efficiency Targets	Progress
Reduce electricity consumption of landlord services installation in new domestic blocks by adopting Energy Codes and obtaining energy certificates for completed projects.	Fully Met
Explore and study the application of green design for building services equipment by completing the PV panel system at Kai Tak Site 1A, installing solar/wind powered lights in new estates for educational purpose and conducting carbon emission estimation and energy estimation for projects with domestic blocks at detailed design stage.	Fully Met
Explore and study the applications of more energy efficient equipment by completing the lift system with regenerative power at Kai Tak Site 1A, monitoring and reviewing the performance of the prototype Light Emitting Diode bulkheads installed at an existing estate and monitoring the environmental lighting controls using motion-sensors and push buttons at the communal areas of domestic blocks at five pilot projects.	Fully Met
Reduce energy consumption in the existing PRH blocks by studying and evaluating the replacement of existing light fittings equipped with electromagnetic ballasts by more energy efficient lighting sources and/or electronic ballasts.	Fully Met
Conduct carbon audit in 12 typical PRH block types for monitoring and benchmarking purposes.	Fully Met
Reduce energy consumption of the Housing Department (HD) office premises by performing various energy saving initiatives.	Fully Met

Greening and Landscaping Targets	Progress
Provide green treatment (e.g. hydro-seeding and tree planting) to newly formed slopes.	Fully Met
Add new vegetation and promote greening in new housing estates to meet the minimum target of one tree per 15 PRH flats. Conduct tree surveys to ensure that this is met. Achieve an overall target of 30% green coverage, and at least 20% as a minimum.	Fully Met
Promote local residents and the community to participate in early plant raising for new housing estates.	Fully Met
Promote community involvement in greening of the new PRH estates by introducing communal planting areas/community farms in master landscape layout plan at design stage.	Fully Met
Upgrade the existing landscape facilities in the selected PRH estates by improving soft landscaping through Landscape Improvement Programme and setting up thematic gardens in the selected PRH estates.	Fully Met
Promote green environment at estates with Estate Management Advisory Committee's support through the provision of greening activities in estates.	Fully Met
Improve the slope appearance in the existing PRH estates by providing green treatment to hard surfaced slopes and improving existing vegetated slopes. Also, chunam surfaces will be improved through hydro-seeding, stone pitching and toe planters.	Fully Met
Promote staff involvement in greening activities by arranging staff to participate in Tree-planting Day.	Fully Met

Material Usage and Hazardous Materials Management Targets	Progress
Further abate the remaining asbestos-containing materials in the existing HA managed properties by implementing asbestos abatement programme through estate redevelopment programme and asbestos removal works.	Fully Met
Use softwood timber from sustainable sources for all types of timber door cores in the PRH estates.	Fully Met
Use timber from sustainable sources for temporary works during construction.	Fully Met
Enhance the use of “green” materials and components.	Fully Met
Maintain the remaining asbestos containing materials in satisfactory condition in the existing PRH estates.	Fully Met
Use environment-friendly paper for printing of all publicity materials (except sales and marketing publications).	Fully Met
Control of hazardous materials to minimise harm to environment by collecting all disposed mercury-containing lamps in the HAHQs for special waste treatment.	Fully Met

Waste Management Targets	Progress
Promote recovery of domestic waste for paper by arranging publicity activities in the PRH estates.	Fully Met
Promote recovery of domestic waste for aluminium cans by arranging publicity activities in the PRH estates.	Fully Met
Promote recovery of domestic waste for plastic bottles by arranging publicity activities in PRH estates.	Fully Met
Promote recovery of domestic waste for used clothes by arranging publicity activities in the PRH estates.	Fully Met
Reduce domestic waste by promoting waste reduction through various publicity campaigns such as Estate Management Advisory Committees newsletters and activities, and other joint activities with green groups.	Fully Met
Promote waste separation at source and green management initiatives in PRH estates by implementing Source Separation of Domestic Waste Programme in all estates, and setting up collection point in the PRH estates for collecting domestic recyclable from tenants.	Fully Met
Reduce A3 and A4 paper consumption in the HD offices by performing various initiatives to reduce paper consumption.	Fully Met
Collect waste paper in the HD offices and implement various initiatives to encourage paper recycling.	Fully Met

Water Conservation Targets	Progress
Reduce flushing water consumption by conducting research on materials and standards and recommending way forward.	Fully Met
Reduce irrigation water consumption by providing rain water harvesting system (RWHS) in new public housing developments.	Fully Met
Study the performance of the new RWHS by measuring the effectiveness and maintenance/electricity expenditure of the system for all commercial centres and PRH estates where the system was installed.	Fully Met
Reduce water consumption at the HAHQs by recording and monitoring water consumption.	Fully Met

Social Targets	Progress
Continue the implementation of the Marking Scheme for Estate Management Enforcement in all the PRH estates and non-domestic premises to enhance the living and business environments.	Fully Met
Conduct various initiatives for the HA staff, for example, activities organised by the HA Staff Club.	Fully Met
Active communications with staff and obtain feedback to enhance operational effectiveness.	Fully Met
Continue to actively work with relevant stakeholders to promote better understanding of the HA's policies and initiatives through different publicity channels.	Fully Met

Safety Targets	Progress
Incorporate a safety pledge with commitment to site safety through listing requirements of service providers.	Fully Met
Continue to tighten monitoring of contractors with high accident rates.	Fully Met
Enhance the 'Pay for Safety, Environment and Hygiene' scheme. More performance driven initiatives will be introduced.	Fully Met
Tighten control measures for high-risk operations on site.	Fully Met
Continue to hold regular seminars on best safety practices with the participation of contractors and project teams.	Fully Met
Continue to partner with industry stakeholders in territory-wide safety campaigns and publicity.	Fully Met
Improve safety of office operations with potential health and safety risks.	Fully Met
Continue to provide safety training for our staff.	Fully Met
Strengthen physical and management measures for tower crane operations.	Fully Met
Publish "Practical Guide to Working at Height: Ensuring Safe Work Practices".	Fully Met
Launch a Site Safety Website with site safety information and multi-media materials.	Fully Met
Continue to issue best practice circulars to contractors, service providers and frontline staff.	Fully Met

Economic Performance Targets	Progress
Implement the rent adjustment mechanism.	Fully Met
Continue to minimise the vacancy of the PRH estates.	Fully Met
Conduct tenancy control and education campaigns with an aim to reduce abuse of housing resources.	Fully Met
Continue to assess of older estates and enhance their preventive maintenance and restoration.	Fully Met



We endeavour to meet our quantitative flat production target and enhance the sustainability of the local public housing. By setting challenging yet realistic environmental, social and economic targets annually, we strive to improve and monitor our sustainability performance and direct it towards sustainability excellence. In 2013/14, we have set 68 targets which are detailed as follows:

Environmental Awareness Raising Targets

Review and monitor environmental awareness in Public Rental Housing (PRH) by partnering with green groups and the Statistics Section to conduct survey on PRH residents.

Monitor environmental awareness and enhance general awareness of Housing Authority (HA) staff by reviewing and implementing training and publicity strategies.

Collaborate with green groups to conduct environmental awareness programmes in the PRH.

Enhance environmental performance of contractors on site.

Promote the PRH tenants' awareness and participation related to waste separation at source, waste reduction and green management initiatives.

Enhance staff environmental awareness and knowledge by organising seminars, displaying environmental issues at the HA Headquarters' (HAHQs) Green Corner and organising campaign.

Enhance community awareness on environmental protection by organising programmes to promote environmental protection messages.

Energy Efficiency Targets

Reduce electricity consumption of landlord services installation in new domestic blocks by adopting Energy Codes and obtaining energy certificates for completed projects.

Explore and study the application of green design for building services equipment by completing the PV Panel system at Kai Tak Site 1B, monitoring the performance of the PV Panel system at Kai Tak Sites 1A and 1B, installing solar-powered lights in new estates for educational purpose and conducting carbon emission estimation and energy estimation for projects with domestic blocks at detailed design stage.

Explore and study the application of more energy efficient equipment by completing the lift system with regenerative power at Kai Tak Site 1B, monitoring the performance of the lift system with regenerative power at Kai Tak Sites 1A and 1B, monitoring the performance of the prototype Light Emitting Diode (LED) bulkheads installed at an existing estate and the LED bulkheads installed at Kai Tak Site 1A. Monitor the environmental lighting controls using motion-sensors and push buttons at the communal areas of domestic blocks at five pilot projects and implement those environmental lighting controls at the communal areas of all domestic blocks.

Reduce electricity consumption in the existing PRH blocks by studying and evaluating the replacement of existing light fittings equipped with electromagnetic ballast by more energy efficient lighting source and/or electronic ballast.

Conduct carbon audit in 14 typical PRH block types for monitoring and benchmarking purpose.

Reduce energy consumption of the Housing Department (HD) office premises by performing various energy saving initiatives.

Greening and Landscaping Targets

Provide green treatment (e.g. hydro-seeding and tree planting) to newly formed slopes.

Add new vegetation and promote greening in new housing estates to meet the minimum target of one tree per 15 PRH flats. Conduct tree surveys to ensure that this is met. Achieve an overall target of 30% green coverage, and at least 20% as a minimum.

Promote local residents and the community to participate in early plant raising for new housing estates.

Promote community involvement in greening of the new PRH estates by introducing communal planting areas/community farms in master landscape layout plan at design stage.

Re-landscape and upgrade the existing landscape facilities in the selected PRH estates by improving soft landscaping through Landscape Improvement Programme and setting up thematic gardens in the selected PRH estates.

Promote green environment in PRH estates with Estate Management Advisory Committee's support through the provision of greening activities in estates.

Improve the slope appearance in the existing PRH estates by providing green treatment to hard surfaced slopes and improving existing vegetated slopes. Also, chunam surfaces will be improved through hydro-seeding, stone pitching and toe planters.

Promote staff involvement in greening activities by arranging staff to participate in Tree-planting Day.

Material Usage and Hazardous Materials Management Targets

Further abate the remaining asbestos-containing materials in the existing HA managed properties by implementing asbestos abatement programme through estate redevelopment programme and asbestos removal works.

Use softwood timber from sustainable sources for all types of timber door cores in the PRH estates.

Use timber from sustainable sources for temporary works during construction.

Enhance the use of “green” materials and components.

Maintain the remaining asbestos containing materials in satisfactory condition in the existing PRH estates.

Use environment-friendly paper for printing of all publicity materials (except sales and marketing publications).

Control of hazardous materials to minimise harm to environment by collecting all disposed mercury-containing lamps in the HAHQs for special waste treatment.

Waste Management Targets

Promote recovery of domestic waste for paper by arranging publicity activities in the PRH estates.

Promote recovery of domestic waste for aluminium cans by arranging publicity activities in the PRH estates.

Promote recovery of domestic waste for plastic bottles by arranging publicity activities in PRH estates.

Promote recovery of domestic waste for used clothes by arranging publicity activities in the PRH estates.

Reduce domestic waste by promoting waste reduction through various publicity campaigns such as Estate Management Advisory Committees newsletters and activities, and other joint activities with green groups.

Promote waste separation at source and green management initiatives in PRH estates by implementing Source Separation of Domestic Waste Programme in all estates, and setting up collection point in the PRH estates for collecting domestic recyclable from tenants.

Reduce A3 and A4 paper consumption in the HD offices by performing various initiatives to reduce paper consumption.

Collect waste paper in the HD offices and implement various initiatives to encourage paper recycling.

Water Conservation Targets

Reduce flushing water consumption by developing specifications for pilot implementation.

Reduce irrigation water consumption by providing rain water harvesting system (RWHS) in new public housing developments.

Study the performance of the RWHS by reviewing the effectiveness and maintenance/ electricity expenditure of the RWHS system for all commercial centres and PRH estates where the system was installed.

Reduce water consumption at the HAHQs by recording and monitoring water consumption.

Social Targets

Continue the implementation of the Marking Scheme for Estate Management Enforcement in all the PRH estates and non-domestic premises to enhance the living and business environments.

Conduct various initiatives for the HA staff, for example, activities organised by the HA Staff Club.

Active communications with staff and obtain feedback to enhance operational effectiveness.

Continue to actively work with relevant stakeholders to promote better understanding of the HA's policies and initiatives through different publicity channels.

Safety Targets

Incorporate a safety pledge with commitment to site safety through listing requirements of service providers.

Continue to closely monitor the contractors' performance through mechanisms such as Performance Assessment Scoring System (PASS), Building Services PASS, Piling PASS, Demolition PASS, Maintenance Assessment Scoring System (MASS), Lift MASS, Housing Authority Safety Auditing System (HASAS), HASAS (Maintenance & Improvement), Surprise Safety Inspection Programme and Housing Authority Lift and Escalator Nominated Sub-contracts Safety Auditing System.

Continue to tighten monitoring of contractors with high accident rates.

Strengthen safety training on site management for contractors and supervisory staff.

Review the practicality of incorporating surprise safety inspection programme into PASS score.

Explore enhancements in contract controls for site safety.

Enhance the 'Integrated Pay for Safety, Environment and Hygiene' scheme by incorporating surprise safety inspection programme score.

Tighten control measures for high-risk operations on site.

Continue to hold regular seminars on best safety practices with the participation of contractors and project teams.

Continue to partner with industry stakeholders in territory-wide safety campaigns and publicity.

Improve safety of office operations with potential health and safety risks.

Continue to provide safety training for our staff.

Strengthen physical and management measures for major construction plant.

Enhance personal protective equipment for contractors' site personnel and our works staff.

Develop the Occupational Injury & Disease Surveillance System for capturing accident and incident data on site.

Develop mobile applications to streamline management of safety, quality and productivity on site.

Continue to update the Site Safety Website with site safety information and multi-media materials.

Continue to issue best practice circulars to contractors, service providers and frontline staff.

Enhance surprise check to lift works contractors for lift modernization and addition works.

Implement Preferential Tender Award System for District Term Contracts.

Economic Performance Targets

Implement the rent adjustment mechanism.

Continue to minimise the vacancy of the PRH estates.

Conduct tenancy control and education campaigns with an aim to reduce abuse of housing resources.

Continue to assess of older estates and enhance their preventive maintenance and restoration.



Scope and Objective

Hong Kong Quality Assurance Agency (HKQAA) has been commissioned by the Hong Kong Housing Authority (hereinafter called “HA”) to conduct an independent verification of its Sustainability Report 2012/13 (herein referred to as “the Report”). The Report stated HA’s sustainability performance and efforts towards sustainable development for the period from 1st April 2012 to 31st March 2013.

The aim of this verification was to provide assurance on the completeness and accuracy of the information stated in the Report. The Report’s coverage of the standard disclosures defined in the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines Version 3.1 (G3.1) was also assessed to confirm if the A+ application level was achieved.

Methodology

The process used in this verification was based on current best practices. The Report was reviewed against the following criteria:

- The principles of completeness, accuracy, neutrality, comparability and responsiveness, as set out in the Institute of Social and Ethical Accountability standard AA1000;
- The Global Reporting Initiative (GRI) G3.1 Guidelines

The verification procedure included reviewing relevant documentation, interviewing responsible personnel with accountability for preparing the Report and verifying the selected representative sample of data and information consolidated in the Report. Raw data and supporting evidence of the selected samples were thoroughly examined.

Conclusion

Based on the outcome of the verification process, it is opined that the Report fulfills the A+ application level of the GRI G3.1 Guidelines.

The information presented in the Report provided a structured, balanced and consistent representation of HA's sustainability performance in the context of sustainable development. We are satisfied that the Report, including factual statements and the data contained within the Report, is accurate and reliable. It is a fair and honest representation of HA's initiatives, targets, progress and performance on its sustainable development achievements.

Signed on behalf of Hong Kong Quality Assurance Agency

A handwritten signature in black ink, appearing to read 'Jorine', with a large, stylized loop at the beginning.

Jorine Tam
Assistant Director, Strategic Business
December 2013



Our Performance and 2012/13 Sustainability Report

The Sustainability Report 2012/13 stating our sustainability principles and summarising our performance during the fiscal year of 2012/13 is available on the Housing Authority (HA) website.

We treasure your feedback to help us continuously improve our performance, services and reporting process. We sincerely hope that you will provide your views as well as comments on this report, our sustainability initiatives, and our performance by emailing the Feedback Form (emu@housingauthority.gov.hk), or by post to:

Senior Manager/Environment
Environmental Management Unit
Hong Kong Housing Authority Headquarters
33 Fat Kwong Street, Ho Man Tin,
Kowloon, Hong Kong

Feedback Form

Thank you for reading our Sustainability Report 2012/13 – *Quest for Excellence in Low Carbon Housing*. Please take a moment to give us your valuable feedback and return to us via email or post before 30 September 2014.

- | | | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1. What is your overall view of the Report? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | Very Good | Good | Adequate | Poor | Very poor |
| 2. Did you find the Report information useful? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | Very Useful | Useful | Adequate | Partly | No |
| 3. Did you find the Report easy to understand? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | Very Easy | Easy | Adequate | Partly | No |
| 4. Did you think the presentation of the Report is clear? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | Very Clear | Clear | Adequate | Partly | No |

*Note:

- | | | |
|--|--|------------------------------|
| 1. About This Report | 2. About the Hong Kong Housing Authority | 3. Environmental Performance |
| 4. Social Performance | 5. Economic Performance | 6. Case Studies |
| 7. List of Awards and Community Recognitions | 8. Previous Targets/Targets and Outlook | 9. Verification Statement |

- | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 5. Which aspect of the Report did you find most useful? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Please specify

- | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 6. Which aspect of the Report did you find least useful? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Please specify

- | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 7. Which aspect(s) of the Report would you like to have more information on? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Please specify

- | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 8. What improvement(s) would you recommend for our next Report? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Please specify

9. What group(s) do you belong to? (You can tick more than one box.)

- | | | |
|--|--|--|
| <input type="checkbox"/> Owner/Tenant in HA flat | <input type="checkbox"/> Environmental Group | <input type="checkbox"/> Education/Academic |
| <input type="checkbox"/> Government Department | <input type="checkbox"/> Other Public Organization | <input type="checkbox"/> Professional Engineer/Scientist |
| <input type="checkbox"/> Other, please specify | | |

10. Would you like to receive our Sustainability Reports in the future?

☐ Yes ☐ No

Name: _____ Contact Number: _____

E-mail Address: _____ Mailing Address: _____

Correspondence:

By Post: Senior Manager/Environment
Environmental Management Unit
Hong Kong Housing Authority Headquarters
33 Fat Kwong Street, Ho Man Tin
Kowloon, Hong Kong
E-mail: emu@housingauthority.gov.hk