

Sustainable Housing: New Horizons



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Executive Summary

This Report

Sustainable Housing : New Horizons is our first Sustainability Report, which describes the environmental, social and economic performance of the Hong Kong Housing Authority (HA) for the period 1 April 2005 to 31 March 2006. For the first time, we are reporting on our environmental, social and economic performance together in one report.

Our first Sustainability Report has been developed with reference to the Environmental Protection Department's 'A Benchmark for Environmental Performance Reports', and the globally recognized reporting guidelines, the Global Reporting Initiative.

Our Vision and Priorities

The HA is the public housing provider in Hong Kong and we aim to provide safe, affordable and sustainable housing in Hong Kong. In order to achieve our vision for sustainable housing, we have been continuing to strive for achieving better designs which integrate environmentally friendly, user friendly, functional and cost effective considerations. We have put this vision into action through our *Strategy for Sustainable Construction*, adopted the Hong Kong Special Administrative Region government's view on sustainable development and have taken this into consideration in identifying our sustainability priorities.

Environmental Performance

We set 41 environmental targets for the year 2005/06 ranging from waste management, awareness & participation, energy efficiency, landscaping and greening, water, air, noise and hazardous materials.

Our environmental performance for 2005/06 is outlined below:

Increased awareness of environmental protection:

- Implemented the "Green Delight in Estates" programme in collaboration with local green groups which increased the awareness of tenants on environmental protection and waste recovery. This demonstrated a successful engagement with our tenants for a sustainable awareness-raising programme.

Increased estate landscaping and greening which has greatly improved amenity comfort and the aesthetic quality of our estates:

- Landscape improvement with upgrading of 110,450 m² greenery in 18 selected estates was completed.
- Greening improvement of 5,800 m² through Estate Management Advisory Committee was carried out in 12 estates.
- About 4,100 trees, 527,400 shrubs and 92,000 annuals were planted in 2005/06.
- All of the newly formed slopes in 2005/06 were green treated by measures including hydro-seeding, planting of creepers and trees.
- Rhododendron Gardens were set up at Lei Muk Shue Estate and Nam Shan Estate.

Example of Landscape Facilities in Public Housing Estates



Example of Intensive Green Roofs(Podium Gardens)



Installation of water reduction appliances/facilities led to a decrease in water consumption:

- Use of self-stopping water tap and reduction of pipe bursting and leakage through

replumbing led to a decrease in water consumption against 2004/05.

- Mandatory installation of waste water recycling facilities in all new construction contracts.

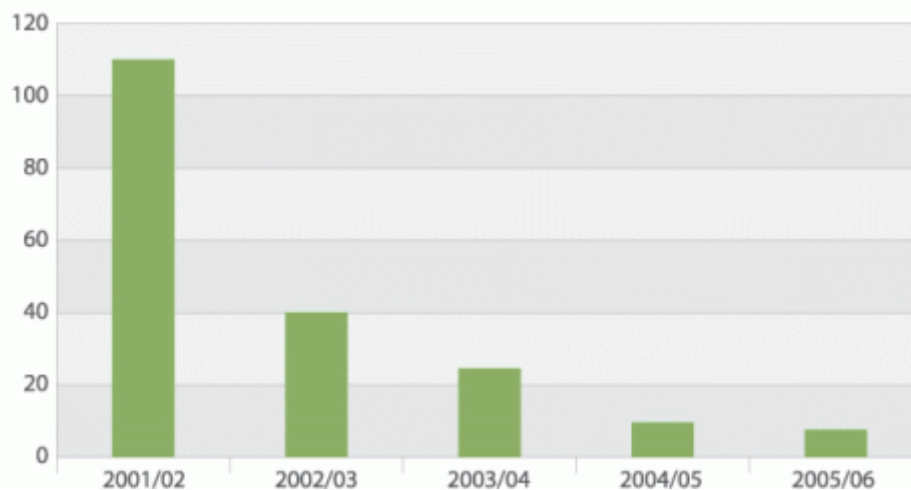
Implementation of air quality measures led to avoidance of emissions and better air quality in offices, sites and estates:

- Continued to incorporate measures to effectively control air quality aspects (dust and exhaust emissions) of our operations including our construction sites, estates and offices.
- Enforce our smoke-free policy in our headquarters and other office premises.
- Installed 44 packaged deodorizers in refuse collection points to help control odours and prevent nuisance to our residents and management staff.
- Avoidance of using building materials that include ozone depleting chemicals. None of our central air conditioning units or chillers uses ozone depleting chlorofluorocarbon (CFC) and halogen gas fire extinguishers.

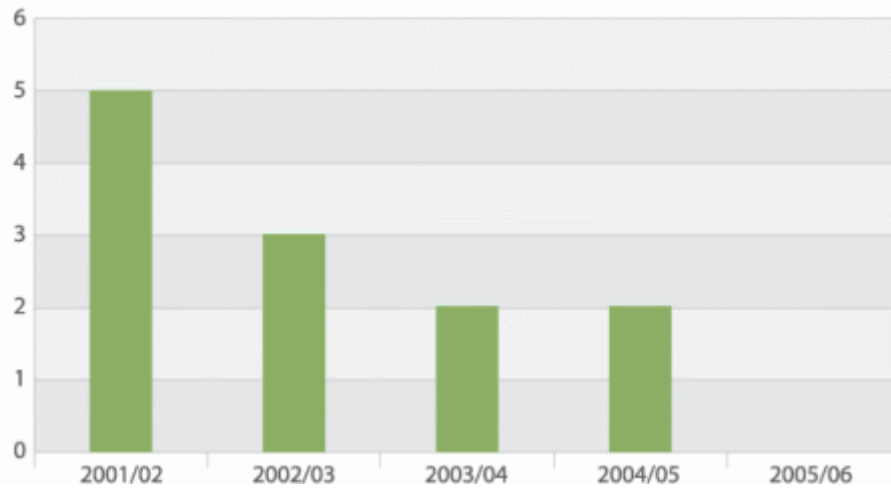
Installation and utilization of better construction and operational practices which led to less noise nuisance:

- Replacement of 14 pumps with smaller and quieter ones.
- Use of hydraulic concrete crushers in demolition works to reduce noise generation.
- In 2005/06, we received eight noise complaints (10 complaints in 2004/05 and 24 in 2003/04). However, we have received no noise abatement notices from the Environmental Protection Department (EPD), a decrease from the previous years.

Noise Complaints against Construction Sites



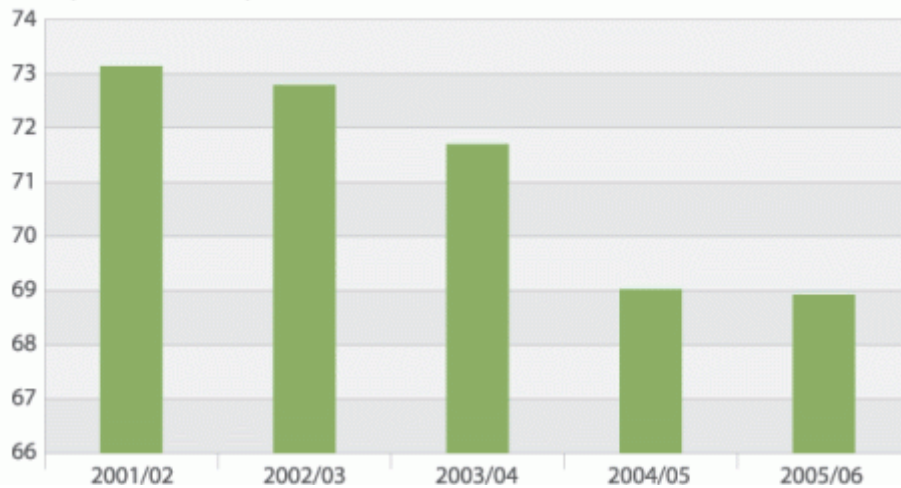
Noise Abatement Notices



Utilization of energy saving measures and appliances decreased energy consumption significantly:

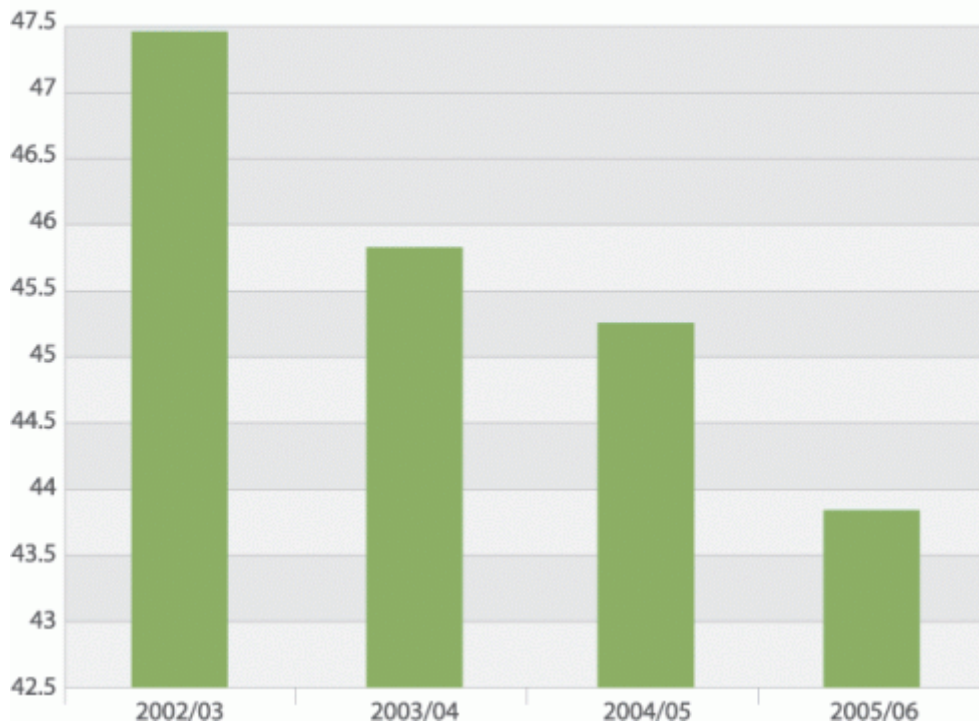
- Through regular circulation of energy saving tips, implementation of energy saving measures and provision of relevant staff training courses, energy consumption in offices and public areas fell against the previous years' consumption.
- Adoption of energy codes and obtained 12 energy certificates for completed projects.

Improvements in Energy Efficiency in Public Area of Estates (kWh/flat/month)



Annual Electricity Consumption in Housing Authority Offices

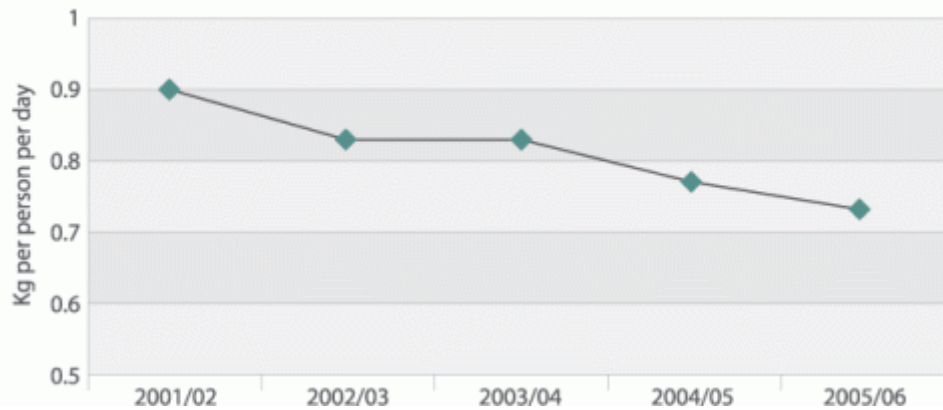
(kWh in millions)



Continued waste management measures through waste recovery and decreased materials consumption:

- Saved 12,730 tonnes of cement use due to the usage of pulverized fuel ash.
- Avoided the use of 18,470 tonnes of timber due to utilization of reusable metal hoardings, metal framework and prefabricated building elements.
- Implementation of waste separation at source for 30 estates.
- Domestic waste in our estates were reduced by 5.1% against 2004/05, above the 1% reduction rate target.
- Recovery of over 120 tonnes aluminium cans, 190 tonnes plastic bottles, 520 tonnes used clothes and 10,140 tonnes waste paper collection.
- Reduced A3 and A4 paper consumption by 3.6% compared to the consumption of 2004/05 and by 8.6% against baseline year of 2002/03.
- Implemented the use of environmentally friendly paper as a pre-requisite in future printing jobs.
- Launched the spent mercury-containing lamps and bulbs and rechargeable batteries recycling scheme.
- Obtained a Gold Wastewi\$e Logo for the fifth consecutive year from the EPD.
- Implemented the use of sustainable timber doors with timber from accredited sustainable sources in a pilot project.
- Safely removed 82 m³ of asbestos-containing materials.
- Development of a Construction Waste Index to assess waste generation in our construction sites.

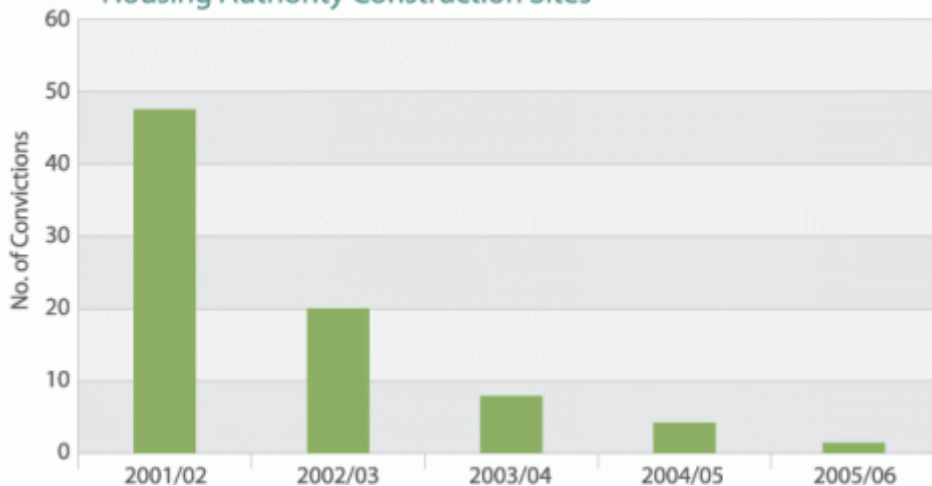
Domestic Waste Generation



Better compliance record with the EPD and contractors:

- Recorded only one non-compliance (four convictions in 2004/05 and eight in 2003/04) of our contractor for water pollution to a communal drain. This has since been rectified by the contractor.

Environmental Convictions Against Housing Authority Construction Sites



Social Performance

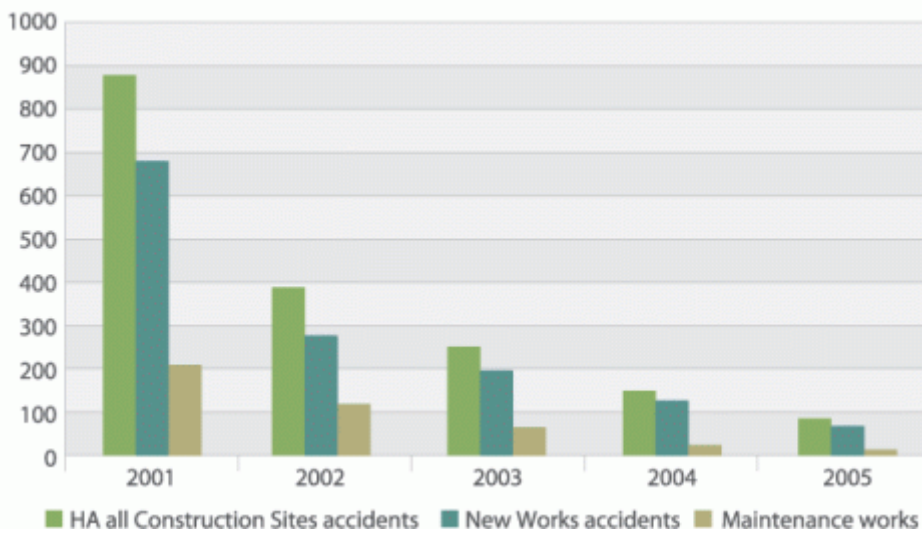
Implementation of safety measures in our construction sites and in maintenance works in estates have led to a better safety record than the local industry:

- No fatal incident in 2005/06.
- Improved safety performance in all HA contracts, new works and maintenance works.
- Implemented building safety measures including the Total Maintenance Scheme (TMS) and other improvements in existing estates (ie handrails, ramps).
- Continued to implement the HA Safety Audit Scheme (HASAS), to assess site safety and performance of our contractors.

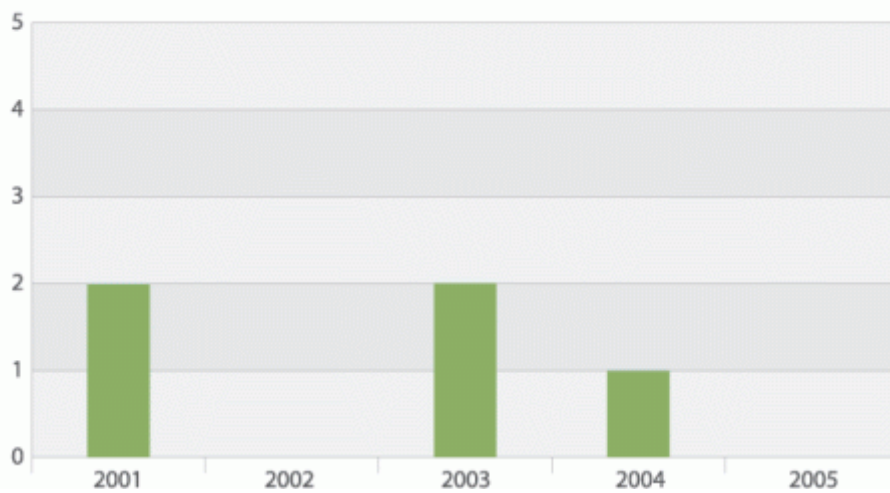
Residents Satisfied with the Total Maintenance Scheme

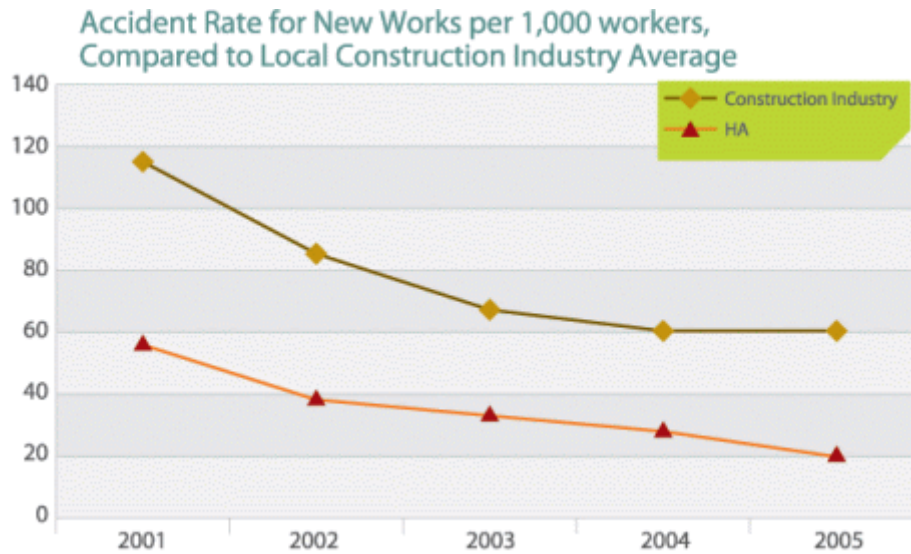


Accidents at Housing Authority Construction Sites



Fatality Data





Source of Reference: <http://www.labour.gov.hk/eng/osh/content10.htm> (Statistics up to 2005).

Carried out hygiene and health initiatives to protect residents and community:

- Implemented the Marking Scheme for Tenancy Enforcement which enforced mostly health and hygiene measures for tenant protection. In 2005, three Public Rental Housing (PRH) tenants who had committed the identified hygiene and health misdeeds were directed to move out after receiving notice-to-quits under the scheme.
- Implemented preventive measures for avian flu including levying penalties and demerit points for feeding wild birds in prh estates.
- Installation of air conditioner drains which would decrease environmental and health nuisance.
- Developed a common w-trap system for drainage works, following the SARS crisis, to prevent spreading of disease through dried up floor drains for new estates under design.

Air Conditioner Drains



Caring for our employees through various measures and employee development:

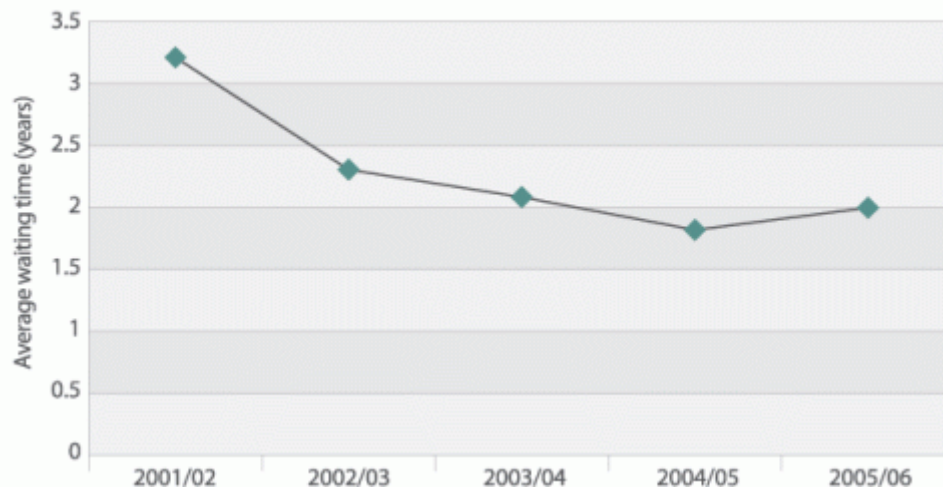
- Redeployment of employees due to divestment of our retail and car parking facilities to the Estate Management Division.
- Implement succession plan development for staff who will receive intensive and fast track management and developmental training.
- Received the internationally acclaimed Excellence in Practice Award in the Learning Technologies Category of the American Society of Training and Development for our e-learning portal.
- Conducted various initiatives for Housing Authority staff, for example, activities organized by the Housing Authority Staff Club, active communication with staff, and obtain feedback to enhance operational effectiveness.

Implemented better customer service initiatives and estate programmes to meet the needs of our customers, tenants and contractors while ensuring that we provide quality public housing in Hong Kong:

- Relaxation of the Rent Assistance Scheme (RAS) for tenants with financial hardship.
- Enhancement of transfer opportunities for tenants through the Living Space Improvement Transfer Scheme where tenants living below 7 m² internal floor area per person can apply for transfer to a larger flat.
- Implementation of three Territory-wide Overcrowding Relief (TWOR) exercises which resulted in the successful re-housing of 1,072 overcrowded families.
- Established an annual quota for non-elderly single persons applying for PRH and established a point system to accord priority to applicants of higher age.
- Maintained average waiting time (AWT) for general PRH applications and for elderly single applicants, well within the pledge of three years and two years respectively.
- Implemented quality of life measures including Laundry Rack Subsidy Scheme, improvement works for the visually impaired and modifications for tetraplegics.
- Implementation of policies on prevention of housing resource abuse including audits, house visits and investigations.
- Reviewed the contractual requirements to enhance workers' security, in particular

to avoid significant wage arrears from the contractors.

Trend of Average Waiting Time (years) for PRH



Joint Working Group for Monitoring Wage Payment to Workers



Economic Performance

Continued development of PRH units to meet Hong Kong's increasing public housing demand:

- As of March 2006, 68 projects were under initial development and 35 projects (around 60,000 units) were under construction.
- Brought into service an additional 17,200 PRH units in 2005/06 to meet the demand.

Our Construction Work Generates Local Employment



Implemented management initiatives to improve financial performance:

- Divestment of 180 retail and car park facilities as The Link REIT which has improved HA's financial position.
- Cash balance as at end of 2005/06 was at \$50.6 billion, representing a substantial increase from last year.
- Launched the last phase sale of the Tenants Purchase Scheme (TPS), which involved selling of the 23,290 flats in five estates.

The Link REIT Listing in November 2005



Effectively managed housing resources and implemented contractor incentives to meet public housing demand:

- Introduced the Revenue Management Module of the first phase of our Estate Management and Maintenance System (EMMS) to streamline operations for

customer payment convenience.

- Upgraded our assets via the Total Maintenance Scheme and comprehensive structured investigations of older estates with a view to extending their life.
- Continuously improved our procurement policy, including implementation of measures to encourage contractors to give high quality service.
- Maintained the Independent Checking Unit (ICU) to conduct third party building control for all of our new projects and existing estates.

Stakeholder Engagement

We believe that our vision for sustainability benefits all of our stakeholders. We know that clear and ongoing communication plays an essential role in our activities, ensuring that our stakeholders are fully informed of what we do, while also giving them an understanding of, and ability to respond to, our initiatives help ensure their success.

Communicating with our tenants and staff to provide updates on HA issues affecting them:

- Utilized the Housing Channel to communicate housing related messages to PRH tenants.
- Produced over 50 videos on an array of housing-related topics and developments.
- Distributed Estate Management Advisory Committee (EMAC) newsletters directly to each household.
- Published our online newsletter, *Housing Dimensions* with information for our staff and for public viewing.

Event Organized by EMAC Played a Vital Role on Stakeholder Engagement



Proactively soliciting feedback from tenants and staff to understand and respond to their needs:

- Positioning of suggestion boxes in strategic and convenient locations.
- Prominently featuring intranet and website feedback collection functionalities.
- Conducted regular surveys to gauge tenants' views, which can also be brought forward through the EMAC.
- Operated the Housing Department Integrated Communication Centre (HDICC) and the HD Enquiry Hotline. In 2005/06, we received over 790,000 calls.

Educational Activities on Personal and Estate Hygiene Rolled Out to Encourage Community Participation



Partnering with Green Groups to bring "Green Delight in Estates" to Public Housing Estates



Way Forward

To continue achieving our vision for sustainable housing, we have identified and committed to various targets in 2006/07. Key targets are summarized as follows.

To continue promotion of sustainability issues:

Awareness and Participation Targets

Targets

Promote green management initiatives in PRH estates by organizing *Green Property Management Award* with green groups.

Enhance community awareness on environmental protection by launching campaigns to promote waste reduction and recycling in PRH estates and joint programmes with green groups and EMACs, including distributing environmental publicity materials to tenants.

Enhance staff environmental awareness and knowledge by soliciting and analyzing training needs, organizing seminars, displaying of environmental issues at Housing Authority Headquarters' Green Corner and providing environmental messages on the e-Learning Portal.

Enhance environmental protection awareness and knowledge of staff and the public by developing and launching an environmental mini-web onto the HA website.

To reduce water consumption:***Water Conservation Targets***

Targets

Reduce flushing water consumption by conducting trial schemes in new projects, and conducting performance reviews.

Reduce potable water consumption for installations under landlord in PRH estates by using self-stopping water taps and conducting a replumbing programme to minimize pipe bursting and leakage as well as studying the feasibility of using rain water for plant watering and general cleaning.

Enhance efficient potable water usage in shopping centres by installing self-stopping or movement-sensing water taps during toilets upgrading.

Record and monitor water consumption at HAHQs in meeting the target of water consumption to less than that of 2003/04. This includes performing initiatives to reduce water consumption as appropriate.

Dual Flush Toilet in pilot project



To enhance greening and landscaping:

Greening and Landscaping Targets

Targets

Provide green treatment (eg 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.

Upgrade the existing landscape in 18 selected PRH estates by improving soft landscaping through Landscape Improvement Programme.

Promote green environment at 24 estates with EMAC through provision of green activities in these estates.

Enhance greening in PRH estates by allocating open areas in selected estates for setting up theme gardens.

To lessen safety and environmental risks:

Control of Hazardous Materials Target

Target

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

To reduce noise nuisances:

Noise Nuisance Reduction Target

Target

Reduce noise nuisance from water pumps in PRH estates by replacing 3,000 rpm water pumps with 1,500 rpm water pumps.

To maintain our waste management practices:

Waste Management Targets

Targets

Increase domestic waste recovery rate for paper, aluminium cans, plastic bottles and used clothes by arranging publicity activities such as Waste Recycling Credit Scheme for all PRH estates.

Promote waste reduction through various publicity campaigns aiming to reduce domestic waste generation.

Implement waste separation at source programme in all estates by phases.

Reduce A3 and A4 paper consumption, collect waste paper and perform various initiatives to encourage paper recycling in HD offices.

Reduce construction and demolition (C&D) waste and ensure proper disposal by developing a Construction Waste Index and guidelines for selective demolition.

Use environmentally-friendly paper in printing of all publicity materials (except sales and marketing publication) by implementing its use as a pre-requisite in all printing jobs.

Collection Facilities for Recyclables



Increased Use of Pre-cast and Prefabricated Elements in Building Construction Works



To continue improvements on energy efficiency:

Energy Efficiency Targets

Targets

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

Explore and study application of more energy efficient equipment by completing trial installation of solar powered lamp poles, adjustment of lift counterweight settings and adopting a wider use of T5 fluorescent tubes.

Reduce energy consumption for office premises by performing various initiatives to reduce energy consumption.

Explore and study application of green design initiatives for building services equipment.

Solar Panels Installed for External Lighting



To improve our safety performance:

Safety Performance Targets

Targets

Continue to tighten monitoring of contractors with high accident rates.

Extend the 'Pay for Safety, Environment and Hygiene' Scheme to building services nominated sub-contracts.

Continue to hold regular seminars on audit findings and best safety practices with contractors, and partner with industry stakeholders in participating in safety campaigns.

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

Continue to provide safety training to staff.

Consider expanding the Silver Card training and requirements to maintenance and improvement work contracts.

Issuance of consolidated safety manual and design checklist.

Keep accident rate to be below 25 accidents per 1,000 workers.

To uphold our social contribution:

Social Performance Targets

Targets

Continue implementation of the Marking Scheme in all PRH estates and factories to enhance the living and factory environment respectively.

Conduct various initiatives for HA staff, for example, activities organized by the HA Staff Club, active communication with staff, and obtain feedback to enhance operational effectiveness.

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

To fine tune our economic performance:

Economic Performance Targets

Targets

Complete the review of the Domestic Rent Policy and consult the public of the initial findings.

Continue to minimize the vacancy of PRH estates.

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

Continue on assessment of older estates and enhance their protection, restoration and upgrades.

Message From The Chairman

Providing sustainable housing continues to be the Housing Authority's vision. We believe that to achieve this we have to utilize the most intelligent designs, implement sustainable construction methods and manage our properties in a cost effective, participatory and environmentally responsible manner.



This year we have maintained our focus on sustainability in our estates, offices and new constructions. We have concentrated on achieving our targets and spearheading initiatives that are consistent with our vision and policies. We have expanded our outlook from a health, safety and environmental perspective to a more comprehensive view of sustainability, which includes environmental, social and economic concerns. To recognize this transition we have prepared our first Sustainability R e p o r t .

Our progress over the last year has been achieved with the substantial support from our staff, tenants and the wider community. With the continued support and input from these stakeholders we are certain that we can continue to provide Hong Kong with housing that meets its social, environmental and economic needs.

Michael SUEN Ming-yeung

A handwritten signature in black ink that reads "Michael Suen". The signature is written in a cursive, flowing style.

Chairman

Message From The Director

I am proud to present our first Sustainability Report. This report has its coverage expanded from environment, health and safety to embrace distinctly the social as well as economic facets with reference to the Global Reporting Initiatives guidelines.



Sustainable development has always been our driving force for the provision of affordable public housing as we progressively explore ways to improve our performance in a balanced manner - environmentally, socially and economically. We have reviewed innovative building and operational methods for implementation in our estates and offices. In the past year, we have practised extensive use of precasting and prefabrication methods as a cost-effective approach in decreasing environmental impacts to our society. We have also been undertaking pilot projects on the use of alternative sources of energy such as solar power in some existing estates.

On the social and economic fronts, we always value our stakeholders' interests and endeavour to address their concerns on timely and prudent basis. We engage with them through consultation meetings at project levels and gather views from the public on housing policies and estate management through our round-the-clock feedback channel.

As a year-end remark, I must cite our newly introduced "Total Maintenance Scheme" (TMS) and "Green Delight in Estates" (GDE) as two good examples representing our efforts towards sustainability. Under the customer-oriented TMS, we share and have trust in the high satisfaction of our tenants living in their well-maintained flats of longer economic life. Through the educational programme of GDE, we witness the growing cohesion of our tenants in their desire and care for greener neighbourhoods. More and more positive involvement of our stakeholders will definitely help us in building a sustainable community in our estates.

Thomas CHAN Chun-yuen

A handwritten signature in black ink, appearing to read 'Thomas Chan'. The signature is stylized and includes a horizontal line underneath the name.

Director of Housing

About The Report

Scope

This 2005/06 report, *Sustainable Housing: New Horizons* is our first Sustainability Report. This report describes the environmental, social and economic performance of the Hong Kong Housing Authority (HA), for the period 1 April 2005 to 31 March 2006. Previously we produced Environmental, Health and Safety (EHS) Reports covering 2003 to 2005 and Environmental reports from 1999 to 2003.

Method

We believe that communication with our stakeholders is key to our success. As such, we have written this report with our stakeholders in mind: tenants and home owners in our estates, business partners, our staff and government colleagues, green groups, media and the public.

We have developed this report with reference to the Environmental Protection Department's A Benchmark for Environmental Performance Reports, the Global Reporting Initiative (GRI) G3 Guidelines, and the GRI sector supplement for Public Agencies published in March 2005. Where appropriate, feedback on previous reports and emerging issues raised or discussed with stakeholders are incorporated into the Report.

The key sustainability data to demonstrate our sustainability performance was compiled and presented from information available. Qualitative information covers all our direct activities unless otherwise stated. Financial data is recorded according to the financial year ended 31 March 2006. All monetary values are in Hong Kong dollars.

In our previous EHS Reports, we have commissioned independent verification companies to provide external verification of the data and information we have reported. Similarly, third-party verification has been undertaken for this Report. We have also undertaken initiatives to ensure that what we have presented in this Report represent a balanced indication of our actual performance.

For additional information on HA's programmes and sustainability performance, please check our website at www.housingauthority.gov.hk or contact us through the contact details provided below.

We welcome your feedback and enquiries on the Report, please contact:

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

What's New

In our reporting

In line with the development of our first ever Sustainability Report using the GRI Guidelines, we are reporting, for the first time, on key indicators on our economic performance, as well as additional environmental and social indicators. This balanced presentation of our performance would better reflect how we are working towards sustainability as the provider of public housing in Hong Kong.

In our organization

We successfully divested most of our retail and car park facilities through the Link Real Estate Investment Trust (REIT) in year 2005/2006. The divestment would enable us to focus our resources on our core public rental housing (PRH) objectives.

We have also continued to expand on previous years' commitments and have initiated other programmes to ensure that the products and services we deliver reflect our vision of being a sustainable public housing provider.

Link REIT Listing in November 2005



Highlights

We had a successful and fruitful 2005/06. One major milestone achieved is the development of this, our first ever Sustainability Report which highlights our achievements across a more comprehensive platform. Not only have we continued to improve on our environmental targets and initiatives, we have now expanded our coverage to include our wider economic and social contributions to our stakeholders and to Hong Kong in general.

Environmental

- Recorded only one environmental conviction against contractors for waste water pollution in 2005/06, comparing to four environmental convictions in 2004/05 and eight in 2003/04. It demonstrated the effectiveness of the implementation of environmental management measures within the Housing Authority and among our contractors;
- Improved energy efficiency of our premises including a 4% cut in energy consumption compared to the previous year at our headquarters building;
- Implemented mandatory use of water recycling systems on our construction sites, further minimizing our consumption of natural resources;
- Made significant advances in increasing the use of pre-cast and prefabricated elements during building construction works to cut down on environmental impacts (waste and use of natural resources) generated on our constructions sites; and,
- Continued support and partnership with our residents and stakeholders in taking initiatives for environmental protection, for instance the 'Green Delight in Estates' showed an improved level of environmental awareness among our residents and stakeholders.

Social

- Decreased the accident rate and no fatalities in our construction sites;
- Improved building safety and living environment via the implementation of the Total Maintenance Scheme;
- Continued enforcing hygiene and health measures such as anti-mosquito breeding, cleansing campaigns, prevention of avian influenza and the like;
- Continued to implement tenancy control measures including serving of notice-to-quit to enhance safe, healthy and harmonious living environment for residents;
- Maintained average waiting time (AWT) for general Public Rental Housing (PRH) applications and for elderly single applicants well within the pledge of three years and two years respectively.
- Carried out modifications in estates to improve the quality of life for our blind and tetraplegic tenants; and,
- Revised and implemented a comprehensive contract package to ensure security of our contractors' workers.

Economic

- Divestment of our retail and car park facilities through The Link REIT has improved Housing Authority's financial position to deliver its housing programme and further enabled implementation of HA's environmental and social initiatives;
- Launched the last phase of the Tenants Purchase Scheme (TPS), involving 23,290 units in five public rental housing estates. Some 16,000 surplus Home Ownership Scheme (HOS) flats will be put up for sale in batches from 2007 onwards to eligible households;

Tenants Purchase Scheme and Cheung Fat Estate



- Upgraded our assets via the Total Maintenance Scheme and comprehensive structured investigation of older estates which also helped to give a better quality of living environment to our residents;
- Launched the Modified Guaranteed Maximum Price (MGMP)/Open Book Contracting Model in a pilot project to generate cost-saving incentives from contractor and integrate contractor's expertise and innovation thus enhancing design and buildability of the project;
- Introduced e-payment card for easier monthly public housing rental payment process. The wider adoption of e-payment is expected to save up to HK\$20 million each year in operating and staff cost;
- Adopted more flexible letting strategies such as shortened letting process and provision of short-term leases to reduce the vacancy of the non-divested retail facilities; and,
- Implemented measures to reduce rent arrears.

Major Achievement and Awards

We continued to reap awards in 2005/06. We provide a listing of achievements:

- Excellence in Practice Award for 2005, awarded by the American Society of Training and Development to our Training and Development Centre;
- A Merit Award under the Innovation/Application of Technology entry in the 2005 Civil Service Outstanding Award Scheme was won by our Corporate Identity Management Programme;
- Green Property Management Award in Public Housing for six of our housing estates, two of which won Gold Awards and four Certificate of Merits;
- Top-level Platinum Rating (Provisional) under the Hong Kong Building and Environmental Assessment Method (HK-BEAM) for the Upper Ngau Tau Kok Phases 2 and 3 and Lam Tin Phases 7 & 8; and,
- Participation in the 2005 World Sustainable Building Conference held in Tokyo,

Japan.

Housing Authority's Experience Shared at World Sustainable Building Conference



Housing Authority Estates Receive Eco-Business Awards



About The Housing Authority

The Housing Authority is a statutory body established under the Housing Ordinance (Chapter 283). Within the government's overall housing policy framework, the Housing Authority is responsible for determining and implementing public housing programmes.

Our Vision

We are the public housing provider in Hong Kong and we aim to provide safe, affordable and sustainable housing in Hong Kong.

As the agency tasked to manage Hong Kong's public housing needs, we provide public rental housing for about 30% of Hong Kong's total population.

We have been working to ensure the implementation, maintenance and sustainability of an effective housing programme that will not only meet Hong Kong's requirements but also contribute towards a stable and happy community.

In order to achieve our vision for sustainable housing, we have been continuing to strive for achieving better designs which integrate environmentally friendly, user friendly, functional and cost effective considerations. We have put this vision into action through our Strategy for Sustainable Construction, adopted the HKSAR government's view on sustainable development and have taken this into consideration in identifying our sustainability priorities.

Strategy for Sustainable Construction

Our Strategy for Sustainable Construction aims to 'progressively 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.'

Environmental Priorities

The HA is the largest developer in Hong Kong with a stock of approximately 680,000 flats which house approximately one third of the population of the city. We have a construction programme of approximately 15,000 new flats every year and our day-to-day operations may have a great impact on the local environment if not properly managed. Given our high-density, high-rise environment with enormous political, technical, time and cost constraints, we must design, construct and manage for better environmental performance for the benefit of our tenants and the community at large. We are committed to properly managing and reducing our consumption of resources in our day-to-day activities, in particular the reduction of waste, and in reducing energy consumption. We also are committed to finding and utilizing better construction methods to decrease our environmental footprint and reduce the overall impact of our development, occupation, management and maintenance processes.

Social Priorities

Serving a third of the population of the city in some 190 housing estates requires management practices that attach great importance to people and the provision of the estate services that they require. The HA aims to make public housing estates a better place to live, and to ensure that our tenants enjoy a quality living environment with a focus on safety and hygiene. We are also working at prioritizing the demands of potential customers according to our policy pledges by providing public housing to those who need it most. We seek to provide a safe and healthy living environment for tenants, as well as working environment for workers who are engaged with our construction, maintenance and property management services

Economic Priorities

The economic performance of an organization provides the key to its success and hence its sustainability. Cost effectiveness is critical to the HA because decisions on any aspect of the housing programme from design, through construction, to operations and maintenance will have an impact on the public purse. Cost-effectiveness is being achieved through a number of measures, including the listing of some of our assets and implementing management measures to sustain the useful life of our existing buildings. Management measures to get the best returns out of the HA resources are constantly reviewed. Enforcing better tenancy controls to reduce the abuses of public housing, more efficient maintenance services and hence upgraded assets via the Total Maintenance Scheme and reducing vacancies in flats, are all very important areas.

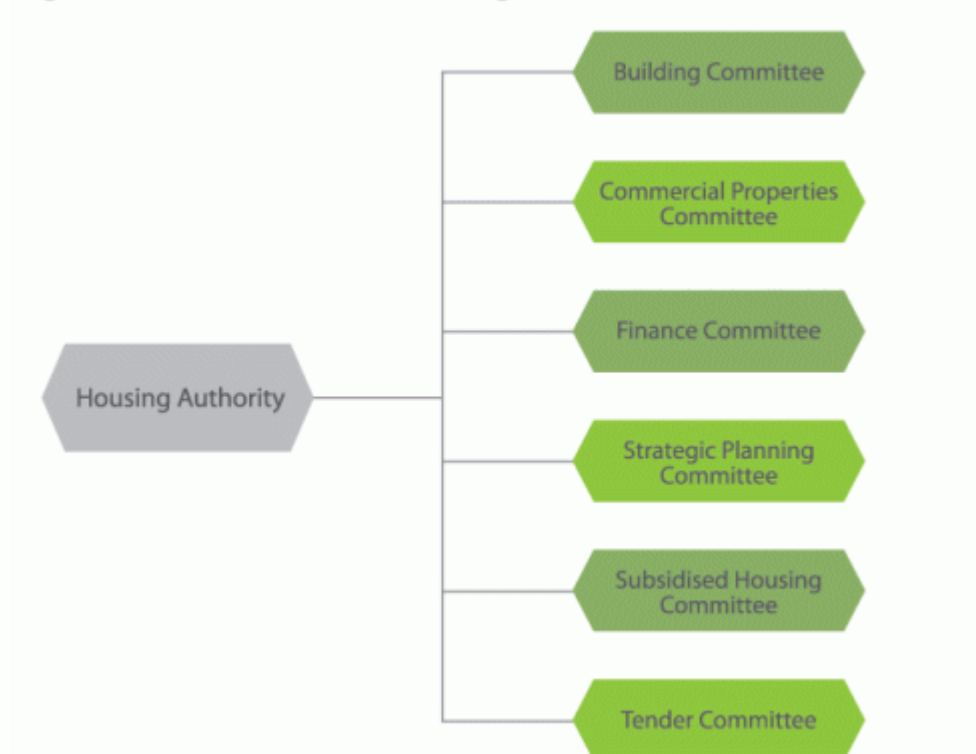
Governance Structure and Management

Structure and Governance

The Housing Authority (HA) is composed of 33 members (as at December 2005), known as HA members, headed by the Chairman, who is the HKSAR Government's Secretary for Housing, Planning and Lands. Other HA members include the Vice Chairman, two government officials and 29 non-official members appointed by the HKSAR Chief Executive.

The HA has six standing committees that are responsible for formulation, administration and oversight of policies in the areas of strategic planning, building, tenders, commercial properties, finance and subsidized housing.

Organization Chart of the Six Standing Committees of the HA

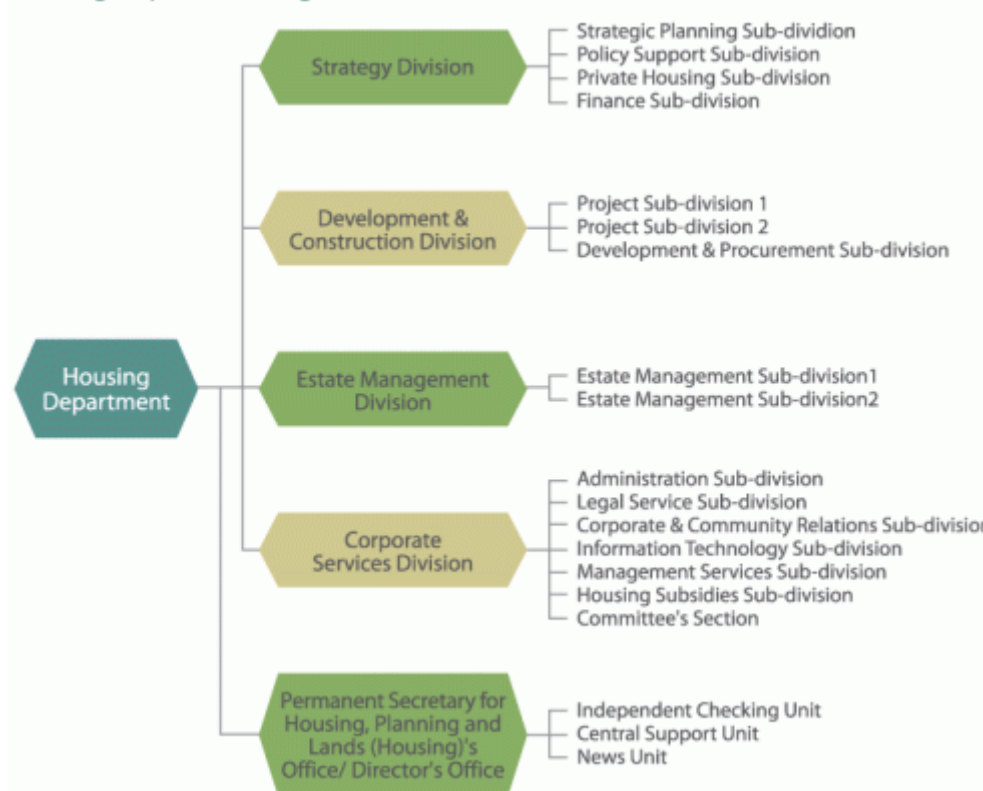


The Housing Department (HD) acts as the executive arm of the HA in implementing its policies and those set by its standing committees. HD is headed by the Permanent Secretary for Housing, Planning and Lands (Housing) who also assumes the Office of the Director of Housing.

The Housing Department Environmental Committee (HDEC), led by Director of Housing, is responsible for developing and reviewing the HA's sustainability strategy, framework and action plans. The Housing Department Environmental Sub-committee (HDESC), chaired by the Deputy Director of Housing (Development and Construction), has been tasked to assist the HDEC in

monitoring the progress and performance of initiatives and action plans across the Housing Department.

Housing Department Organization Structure



Overarching Policies and Management Systems

In order to meet our vision for sustainable housing, we strive to balance the economic, social and environmental needs and concerns of all our stakeholders. To help achieving this balance, we have formulated our Environmental and Safety Policies respectively. With the active support of top management, relevant policies on sustainability are systematically implemented throughout the HA and communicated to our suppliers and contractors. Sustainability concerns are embedded in our tendering and contracting procedures and implementation of our policies and systems are regularly checked and monitored. We also provide training and undertake promotional events to ensure that staff and contractor competency levels meet our needs and to raise the awareness of our tenants in general.

Environmental Policy

- 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 minimize environmental impacts (air, dust, noise, waste and water) to residents and the public from our operations;
 - To develop procurement policies to minimize 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 Policy

- To provide information on safety and health criteria in new projects and maintenance operations for contractors, the public and other key stakeholders;
 - To make safety and health performance one of the critical considerations in tender selection for all new and existing building projects;
 - To build up a safety profile of contractors for continuous assessment of safety performance;
 - To monitor contractor safety performance by independent and in-house assessment;
 - To work through partnership by incorporation of contractors' input in respect of safe construction technology and equipment; and,
 - To promote safety and health issues particularly related to HA projects to enhance the safety and health of persons involved.
-

We believe that meeting our vision for sustainable housing in Hong Kong is achievable with business partners and contractors who share our vision. Our procurement principles were developed to guide us in the procurement process to ensure that our partners operate in a sustainable manner.

Environmental Procurement Policy

- To identify significant environmental impacts of materials and services in use;
- To purchase materials, goods and services to specifications that are compliant with relevant environmental legislation;
- To include environmental considerations in our purchasing decision so that, if technically acceptable and economically viable, lower environmental-impact goods are purchased;
- To assess the environmental commitment of suppliers, contractors and service suppliers as part of the tender evaluation process, and to reward the best environmental performers;
- To require contractors and service providers (where appropriate) to produce Environmental Management Plan in the bids for work, and to evaluate the evidence of implementation as part of supervision of works;

- To provide feedback and advice, and facilitate training to key suppliers, contractors and service providers on environmental performance and improvement opportunities;
 - To ensure all staff, as well as suppliers, contractors and service providers are aware of, and act in accordance with, the Environmental Procurement Policy and contribute to the HA's environmental objectives; and,
 - To establish systems, targets and action plans for effective environmental procurement and regular reporting on performance.
-

Environmental Performance

Environmental initiatives continued to be our priority throughout the year 2005/06. In the past year, we were able to decrease our water and energy consumption and material usage and reduce domestic waste. Air and noise nuisances also decreased significantly with the use of better construction and operational equipment and practices. The implementation of our green initiatives, such as usage of sustainable materials, trial studies on environmentally friendly materials, monitoring of waste recovery rates and installation of water saving appliances, etc., all contributed to our improved environmental performance.

One example of the new initiatives that we implemented in the past year was the 'Green Delight in Estates' (GDE) programme in collaboration with local green groups in mid 2005. This programme aimed at increasing tenant awareness on environmental protection and waste recovery, and encouraging tenants to participate in environmental activities through community cohesion activities. These included a campaign for cleaning up our estates, training and awareness programmes and recruitment of Green Ambassadors. It is anticipated that more volunteer groups will be organized to lead in environmental efforts for each estate; and that, through such a sustainable programme, a long-term environmental commitment and increased community participation will be maintained. Recent surveys in different estates undertaken by the Housing Authority showed that more than 70% of the participated tenants in the GDE programme ranked themselves more aware of environmental issues.

Of the ongoing initiatives, we continued to conduct micro-climate studies in the design process to ensure that we maximize or address environmental factors, such as local wind patterns, natural ventilation of buildings, pollutant dispersion, day-lighting standards, thermal comfort, energy-efficiency and traffic noise in all our new developments. In this way we adhere to our vision of building sustainable housing, as well as provide a healthier, more natural environment for our tenants. In 2005/06, master layout plans and scheme designs resulting from this process were approved for four new developments - Sha Tin Pass Road, Tung Tau Cottage Area West, ex-Chai Wan Estate and Choi Wan Road Sites 2 and 3B.

In the past year, we have also attained recognition for our sustainable building design and construction under the HK-BEAM, the Hong Kong Building Environmental Assessment Method. This programme has earned us a top-level platinum rating (provisional) for the Upper Ngau Tau Kok Phases 2 and 3.

Estate Landscaping and Greening

Enhancing the comfort and attractiveness of estates for our residents through landscaping and planting of greenery has long been one of our priorities during construction, management and maintenance activities for our estates.

In 2005/06, our Landscape Architects and Horticulture Team have continued their efforts to improve the living environment on our estates. About 4,100 trees, 527,400 shrubs and 92,000 annuals were planted in the year.

Example of Landscape Facilities in Public Housing Estates



Greening Targets 2005/06

<i>Targets</i>	<i>Our Performance</i>
<ul style="list-style-type: none">• Provide green treatment to newly formed slopes.	All of the newly formed slopes in 2005/06 with a total area of 1,900 m ² were treated by hydro-seeding, planting of creepers, trees, etc.
<ul style="list-style-type: none">• Upgrade the existing landscape facilities in selected PRH estates.	110,450 m ² of landscape improvement were completed in 18 estates.
<ul style="list-style-type: none">• Promote a green environment at PRH estates with Estate Management Advisory Committee (EMAC) support.	5,800 m ² of greening improvement were carried out in 12 estates.
<ul style="list-style-type: none">• Improve slope appearance in existing PRH estates.	Green treatment was applied to ten slopes in six estates.
<ul style="list-style-type: none">• Set up theme gardens to enhance awareness of greening in PRH estates.	Rhododendron Gardens were set up at Lei Muk Shue Estate and Nam Shan Estate.
<ul style="list-style-type: none">• Maintain planting and greening standards in new PRH estates.	Greening and planting continued to be a key consideration throughout the design and building process for new PRH estates.

We have continued to make best use of the natural characteristics of the estates by preserving existing greenery and maximizing and expanding landscaped areas. For instance, in the past year our work has included setting up roof-top gardens on some of our lower housing blocks.

Example of Intensive Green Roofs(Podium Gardens)



Our ongoing programme to provide special theme gardens in selected estates also continued in the past year with colourful Rhododendron Gardens completed at both Lei Muk Shue and Nam Shan Estates.

As part of the GDE programme, residents in selected estates were able to enjoy some closer encounters with nature through visits to tree trails and butterfly gardens on our estates.

Every year we organize tree planting days at selected estates to raise awareness of our extensive greening efforts and achievements. This year we invited 300 of our staff and residents to join us in Tree Planting Days.

We held the Housing Authority Flower Show at Lok Fu Estate in December 2005 and January 2006 for the enjoyment of residents and the public.

Water

Water Targets 2005/06

<i>Targets</i>	<i>Our Performance</i>
<ul style="list-style-type: none">• Reduce water wastage in large diameter bore piling (LDBP) works.	All new contracts for LDBP works include mandatory installation of waste water recycling facilities.
<ul style="list-style-type: none">• Reduce flushing water consumption.	Completion of pilot trial in Housing Authority Headquarters (HAHQs) and Shek Lei Ph 10 identified as the estate to undergo trial for dual flush WC cisterns.
<ul style="list-style-type: none">• Install mandatory water recycling facilities in all new building, piling and civil	All new contracts include mandatory installation of waste water recycling facilities.

engineering contracts.

- Reduce potable water consumption under landlord installations in PRH estates. Use of self-stopping water tap and reduction of pipe bursting and leakage through replumbing led to a 13% decrease in water consumption against 2004/05.
-

Fresh Water Quality Scheme

We are fully committed to ensure the plumbing systems on our estates deliver clean and safe potable water to households. To give our residents peace of mind on this issue, in 2003 we were committed that all housing blocks in our estates would join the Fresh Water Plumbing Quality Maintenance Recognition Scheme. This scheme was launched by the Water Supplies Department (WSD) in 2002 and involves regular monitoring of water supplies in buildings. In line with our commitments, we are progressing as planned with entering our public rental housing blocks into the scheme. As of 31 March 2006, 801 or 76% of our public rental housing blocks have been certified. Among these, 438 blocks were certified in 2005/06. We expect all the remaining 249 of our public rental housing blocks will be issued certificates in 2006/07.

Protecting Potable Water Quality

To safeguard the quality of potable water reaching our residents, we have continued our ongoing programme of replacing the original galvanized steel pipes with copper or uPVC-lined steel pipes in entire housing blocks. This is a proactive solution to address discolouration of water that can occur when galvanized steel pipes deteriorate with age. As at 31 March 2006, we have finished replumbing a total of 742 PRH blocks including 30 blocks completed in 2005/06.

Water Savings

In the past year, we have continued measures to save water and prevent water wastage in our construction works. Following consultations with the Hong Kong Construction Association, for the first time we have made it a mandatory requirement for our contractors to use Water Recycling Systems for all contracts involving Large Diameter Bore Piling Works as well as in all new building, piling and civil engineering contracts. In 2005/06, there was a total of eight construction contracts underway which have all followed this requirement. By doing so, our contractors have helped to save considerable quantities of water.

In our estates, we have continued to implement measures to reduce water wastage at outlets under our control. Such measures include the use of water saving self-stopping taps and replumbing works with the aim of stopping water leakage and preventing pipe bursting. In the past year, our

records indicate water consumption from our outlets has dropped significantly (13% less compared to 2004/05).

We have continued to seek ways to reduce water consumption in our premises. In the past year, we extended a trial scheme on the use of dual flush toilets in HAHQs headquarters building with a similar trial in the new Shek Lei Estate, which is under construction. Findings of the study in the HAHQs indicate that their use has been effective at reducing volumes of flushing water. We will review the performance of these facilities under domestic usage in Shek Lei upon population intake with the aim of wider use in our premises.

Dual Flush Toilet in pilot project



Air

We continued to incorporate measures to effectively control air quality aspects of our operations on our construction sites, estates and offices. In addition, our energy targets are also primarily set to contribute to addressing air quality issues in Hong Kong.

Controlling Fugitive Emissions from our Construction and Demolition Sites

To ensure that fugitive emissions from our construction and demolition (C&D) sites are properly controlled, we continued to implement requirements for contractors working on Housing Authority C&D works to implement all practicable means to avoid or otherwise control dust and exhaust emissions from their works and construction vehicles. Our requirement of hard paved construction also helped to enhance cleanliness and dust control on our construction sites.

In the past year, we have undertaken an innovative pilot project to further

increase the use of precast building elements on projects. Instead of our usual level of 18% (by volume of concrete), our new buildings at the Kwai Chung Flatted Factory project included 60% pre-cast elements. More use of precast, prefabricated building elements, thus reducing various unnecessary construction activities, is expected to lead to lower fugitive emissions from the construction site.

Advanced Pre-cast Technology Adopted for Kwai Chung Flatted Factory Project



Indoor air quality

We recognize maintaining good indoor air quality is an integral part of good building management. We introduced the misdeed item under the Marking Scheme for Tenancy Enforcement since 1 January 2006 to prohibit "smoking in lift car of domestic blocks of public housing estates" as an initiative for the benefit of our residents. For the health and comfort of our office staff and visitors, we continued to enforce our smoke-free policy in our headquarters and other office premises.

Refuse Collection Points

We continued to pay close attention to the management of refuse collection rooms in our public housing estates. In 2005/2006, we have installed another 44 packaged deodorizers in refuse collection points in the buildings to help control odours and prevent nuisance to our residents and management staff.

Ozone Depleting Chemicals

Since the ban on the use of certain ozone depleting chemicals, we have gone a

long way to completely phasing out their use in recent years. None of our air conditioning units or chillers uses ozone depleting chlorofluorocarbon (CFC). We also do not have halogen gas fire extinguishers. Through our environmental procurement policy, we avoid building materials that include ozone depleting chemicals.

Atmosphere

We are fully aware that regional air pollution and climate change issues are high on the local and international agenda. We discuss our progress in reducing our energy consumption and improving energy efficiency in the energy section (see [Energy Section](#)). In finding ways to reduce our demand for energy, we are also contributing to efforts for reducing air pollution and greenhouse gas emissions from local power stations.

We also support the Action Blue Sky Campaign of the HKSAR Government launched in July 2006. As a response to this, we have continued to implement measures on the following:

- Operating using international standards: Sustainable design and planning through micro-climate studies and life cycle assessment; installations do not use CFCs and comply with local air regulations; greening activities; implementation of good site practices that decrease dust and air emissions; purchasing materials that are environmentally-friendly and using natural or organic fertilizers/pesticides as much as possible.
- Publishing information on energy use: We have presented our performance in Energy Section.
- Undertaking energy efficient measures. We design our flats in accordance with HKSAR's Building Energy Codes and explore the application of renewable energy.
- Identify and encourage business relevant measures on days when air pollution is high. We promote the practice of encouraging our staff to use public transportation on days when the pollution levels are high.
- Share air quality expertise with others. We share our experience and knowledge of air pollution reduction at the local and international level through conferences and seminars.

Noise

As part of our ongoing programme to replace 3,000 rpm water pumps with quieter 1,500 rpm models in our estates, we set ourselves a target for 2005/2006 to replace a further 15 pumps (see *Table below*). We have made substantial progress on this target with 14 replacements completed as at 31 March 2006, with another two in hand. Since this programme began in 2000/2001, we have replaced a total of 184 such pumps which have improved the living environment of residents on our estates.

Noise Target 2005/06

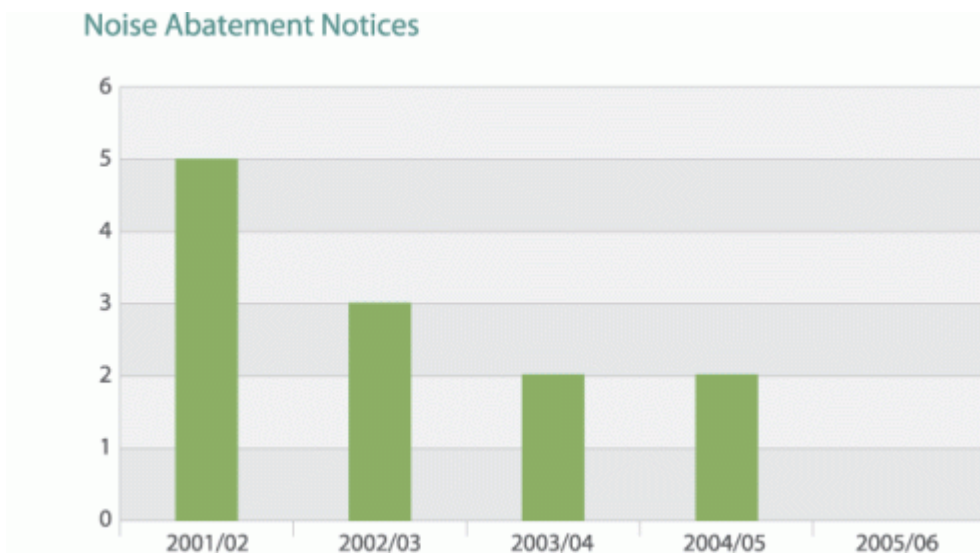
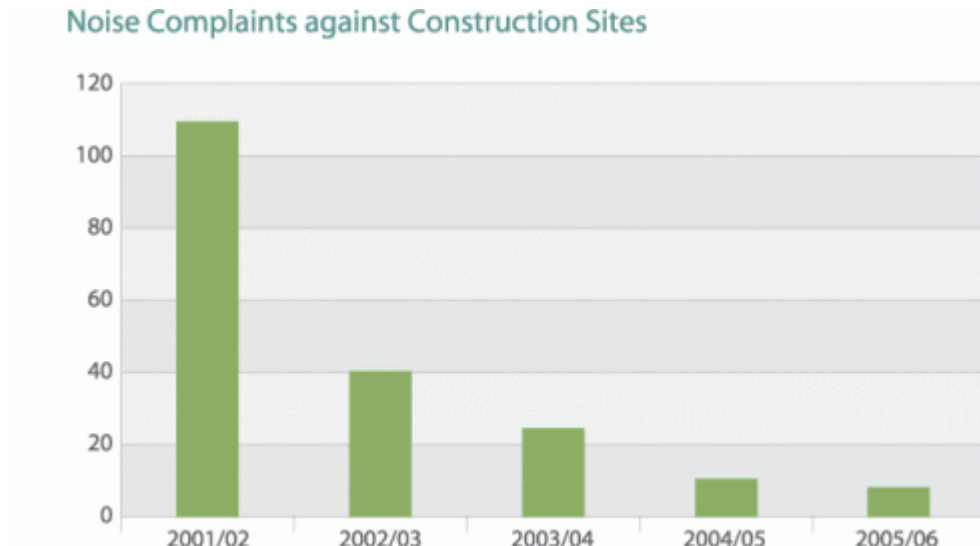
Target

Our Performance

- Reduce noise nuisance from water pumps in PRH estates. Replacement of 14 pumps. We are still undertaking the replacement of two more pumps in the Model Housing Estate.
-

Noise Complaints and Abatement Notices

In 2005/2006, we received eight noise complaints. In the past year, no noise abatement notice was received from EPD, a decrease from the previous year.



Reducing Noise at Construction Sites

One of the major benefits of the use of prefabricated and precast building elements is cutting down noise from construction activities. In the past year, we made substantial advances in the use of pre-cast and prefabricated building elements in our new projects. With less in situ concreting works on site, this

contributed to a sizable reduction in noise generated on-site.

The use of hydraulic concrete crushers, which generates less noise than percussive crushers, in construction or demolition work is also being undertaken by our contractors. We have developed guidelines on this use for noise-sensitive construction sites.

Increased Use of Pre-cast and Prefabricated Elements in Building Construction Works



Energy

With increasing energy demand and the accompanying environmental impacts associated with its use, we are consciously working towards reducing energy use in our headquarters/offices and in public areas of our estates and enhancing energy efficiency in our new projects.

Energy Targets 2005/06

<i>Targets</i>	<i>Our Performance</i>
<ul style="list-style-type: none">• Reduce electricity consumption of landlord services (ie services provided to areas managed by the Housing Authority) installation in new domestic blocks.	Adopted energy codes and obtained 12 energy certificates for completed projects.
<ul style="list-style-type: none">• Explore and study application of more energy efficient equipment.	Conducted trial studies on Light Emitting Diode (LED) exit signs.
<ul style="list-style-type: none">• Reduce energy consumption in HAHQs.	Through regular circulation of energy saving tips, implementation of energy

saving measures and provision of staff training courses, energy consumption has been reduced by 4.06% against the previous year and 14.3% against the baseline year of 2002/03.

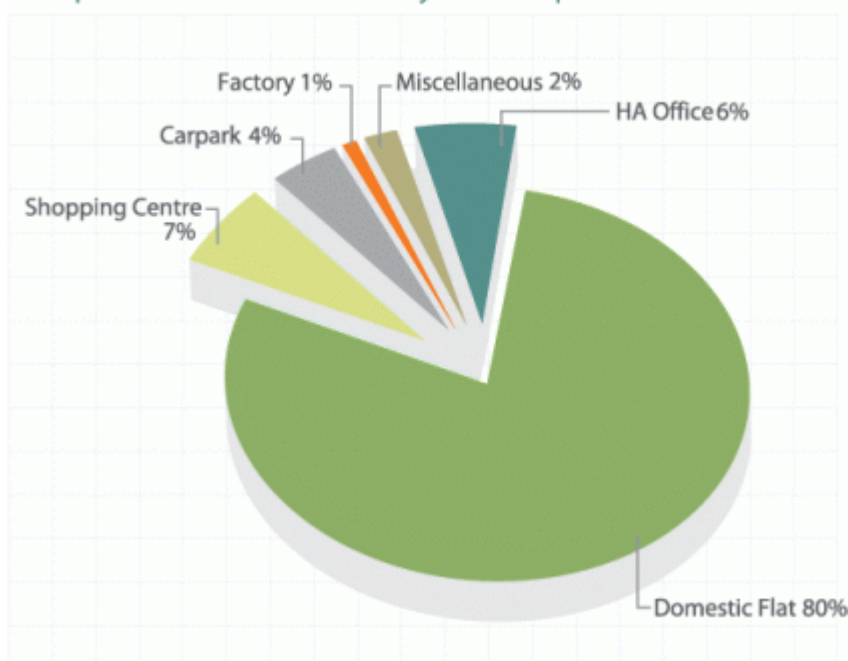
Energy Consumption

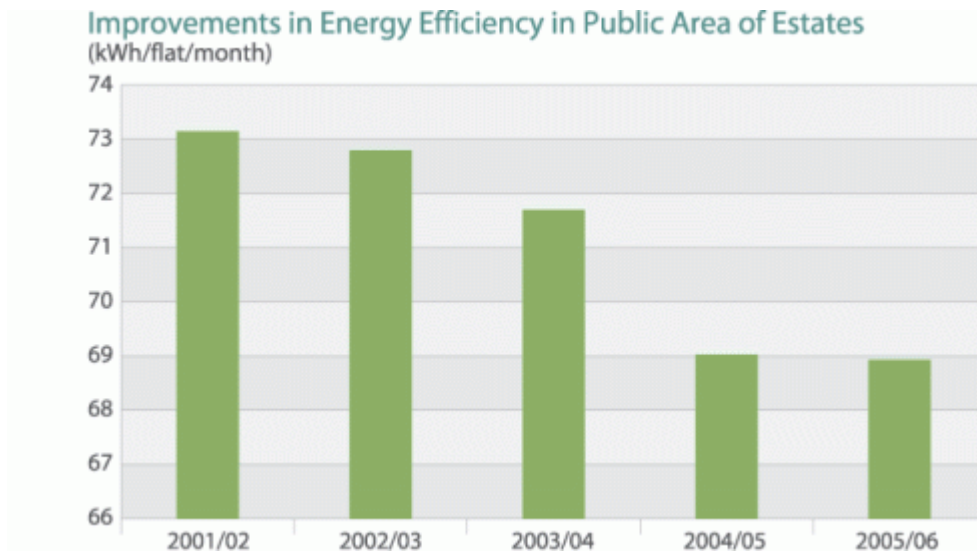
In 2005/06, direct energy use (electricity consumption) for our headquarters, offices and all our premises was 649,487,202 kWh. This was 34% less than 2004/05 primarily due to the transfer of many commercial premises to The Link REIT and the implementation of energy saving measures, for example,

- Monitor and regularly maintain room temperature at 25.5°C by adjustments of air conditioning systems;
- Shorten operating hours of air conditioners, lights and lifts; and,
- Increase awareness of staff to implement energy saving measures through e-mail reminders and appointment of energy wardens to disseminate the message.

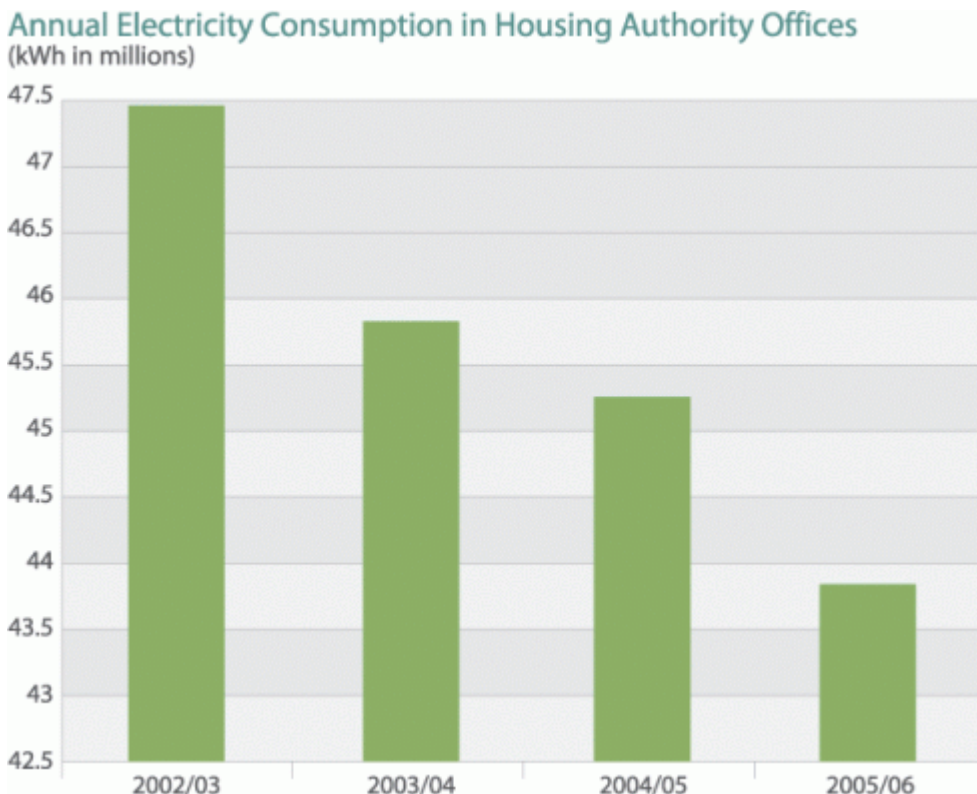
Electricity consumption in public areas on our estates accounted for the highest proportion (about 80%) of our annual electricity consumption. Compared to the previous year, energy consumption for public areas fell from 69.02 kWh to 68.92 kWh per flat per month.

Composition of Total Electricity Consumption in 2005/06





With the support of our staff and energy wardens, electricity consumption at our headquarters building in 2005/06 was 4.06% less than the previous year. Electricity consumption at our headquarters building is now 14.3% less than the baseline year of 2002/03 when we first introduced energy consumption reduction targets.



New Energy Saving Initiatives

We are constantly seeking new and innovative ways to improve our energy efficiency. In the past year we have sought to gain experience with some

alternative energy sources by installing solar panels (photovoltaic systems) for external lighting in three estates. We have communicated with the two electricity providers in Hong Kong on areas such as energy efficiency and cleaner energy. We also completed small scale trials on the use of LED and self-luminous exit signs. Opportunities were identified for energy savings by modifying the design of exit signs. In the past year, we have also been working on the trial adjustment of counterweights in lifts and we are working to measure the potential energy savings. In addition, we have been conducting trial use of nano-reflectors to enhance luminance and therefore reducing energy needed. Trials were completed and are under evaluation.

Solar Panels Installed for External Lighting



Waste

For this year, we continued to commit ourselves to efficient waste management by undertaking the 4Rs: Reduce, Reuse, Recycle and Recover.

Waste Targets 2005/06

<i>Targets</i>	<i>Our Performance</i>
<ul style="list-style-type: none"> Conduct quarterly survey and develop guideline on selective demolition with an aim to reduce construction waste. 	<p>Quarterly surveys on construction waste have been conducted. Construction waste index is being developed. Substantial progress on promulgation of guideline for selection demolition.</p>
<ul style="list-style-type: none"> Implement the new waste 	<p>Installation of Central Compactor</p>

handling system and thus improve the hygienic and cleanliness in housing estates.	System/Distributed Compactor System (CCS/DCS) in new development projects.
<ul style="list-style-type: none"> • Use sustainable timber doors. • Explore and study application of green design for building services and equipment. • Increase domestic waste recovery rate for <ul style="list-style-type: none"> > paper (Pa); > aluminium cans (Ac); > plastic bottles (PI); and, > used clothes (Uc) • Reduce domestic waste. • Promote recovery of spent mercury-containing lamps and bulbs. • Promote recovery of used rechargeable batteries. • Implementation of waste separation at source. • Reduce A3 and A4 paper consumption in HD offices. • Collect waste paper in HD offices. • Use environmentally friendly paper in printing of all publicity materials (except sales and marketing publication). 	<ul style="list-style-type: none"> Pilot project identified. Conducted trial studies. Recovered 12.16%, short of the 14% recovery rate target. Recovered 19.3%, short of the 23% recovery rate target. Recovered 3.2%, above the 1.9% recovery rate target. Recovered 526 tonnes used clothes. Reduced by 5.1%, above the 1% reduction rate target. Launched the recycling scheme. Launched the recycling scheme. 30 estates have joined the scheme to implement source separation of waste. Reduced by 3.6% against previous year and 8.6% against baseline year of 2002/03. Collection increased by 1.4% against previous year and 9.1% against baseline year of 2002/03. Implemented the use of environmentally friendly paper as pre-requisite in printing jobs.

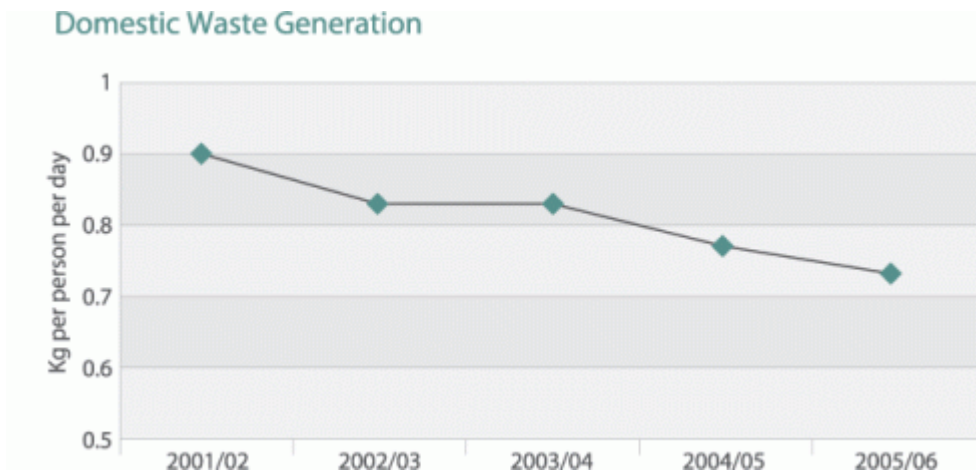
In the past year, there were two targets where we fell short. Both the recovery rates for aluminium cans and paper were recorded below targeted levels. We suspect that residents' contribution direct to recyclers might be partly responsible for this and the observed lower recovery rates may also be due to removal of these recyclables from the bins by scavengers before we can collect them.

Domestic Refuse Production

According to our Waste Reduction Credit Scheme records, residents generated 0.74 kg per person per day in 2005/06 compared to 0.78 kg per person per day in the previous year. This represents a 5% drop in the amount of domestic refuse generated in our estates compared to the previous year.

Domestic Waste Recovery

Waste recovery rates in the past year were at similar levels to previous years with our residents continuing to make significant contributions to environmental protection by using the recycle bins. In total, over 10,140 tonnes paper, 120 tonnes aluminium cans and 190 tonnes plastic bottles were recovered for recycling from our estates in the past year. Meanwhile, we launched a new campaign to collect used rechargeable batteries in all our estates. About 229 kg of batteries were collected. In addition, we continued to support the waste recovery initiative by Friends of the Earth to collect moon-cake tin boxes. In 2005/06, residents brought in 42,681 moon-cake tins for recycling which is 51% more than in the previous year. We have also helped in EPD's Waste Electrical and Electronic Equipment Recycling Day. We provided collection facilities in all 190 of our estates for residents to dispose of unwanted equipment for reuse and recycling.



Collection Facilities for Recyclables



Office Paper Recycling

The amount of paper deposited by our staff for recycling in our offices in 2005/06 was 161,348 kg, which is 1.4% more than the previous year (9.1% increase against baseline year of 2002/03). In the same period, our office paper consumption fell 3.6%.

In 2005/06 we also increased efforts to use recycled paper.

Waste Management on Our Construction & Demolition Sites

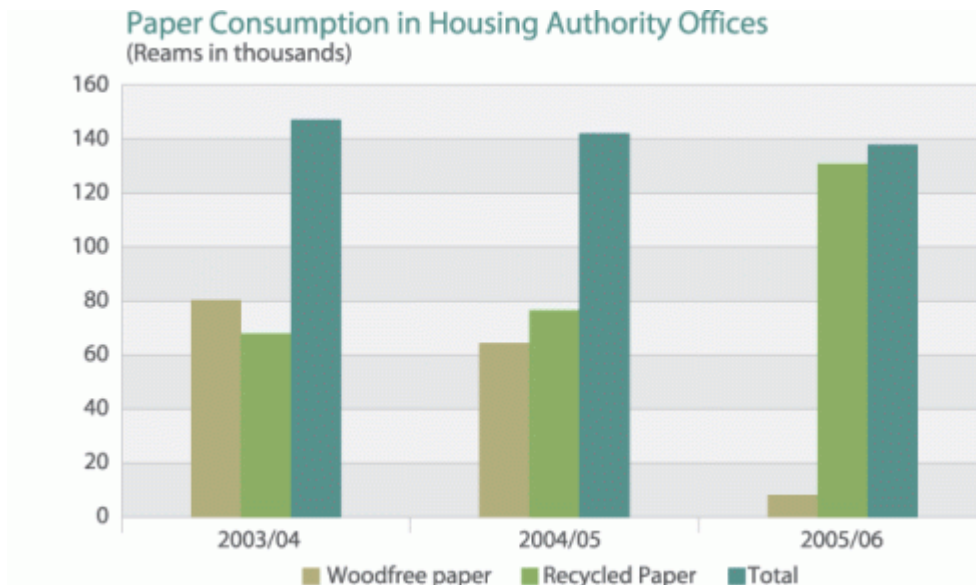
We are acutely aware of the need to minimize waste associated with construction and demolition (C&D) works. We have adopted many measures to achieve this including the increased use of precast and prefabricated building elements as well as material recycling and reuse and waste separation of inert and non-inert C&D waste. In the past year, 328,900 tonnes of inert construction and demolition waste was generated on our sites.

We have also made progress with developing a database system for the quarterly monitoring of waste generated by individual projects. In the past year, we have studied the Construction Waste Index of some 30 construction sites. We found our construction sites produce about 30% less C&D waste than similar-sized private development projects based on a study undertaken by the Hong Kong Polytechnic University.

Material Usage

Office Paper

Reduction of paper consumption continued to be implemented through increased use of recycled paper, posting of circulars/memos and publications via the internet and e-mail system and circulation of paper saving tips. These efforts have led to a 3.6% decrease of paper consumption compared to the previous year.



Of the 137,862 reams of office paper used in 2005/06, 94.5% was recycled paper and the remainder was wood-free paper.

Other initiatives to reduce the environmental impact of paper consumption include using recycled paper in the printing of publicity materials.

Wastewi\$e Scheme

By increasing the use of recycled materials in our activities (ie construction materials and paper) and collection of waste (ie aluminium cans, etc), we were able to decrease wastage from our activities. Due to these achievements, we were assessed by EPD under the Wastewi\$e Scheme as continuing to make 'good achievements'. As a result, the Gold Wastewi\$e Logo was retained for the fifth consecutive year.

Pulverized Fuel Ash

We have continued our use of pulverized fuel ash (PFA) as a partial cement substitute on our construction sites. In 2005/06, our use of PFA saved 12,730 tonnes of cement use.

Timber

In the past year, we have continued to insist our contractors use reusable metal hoardings, metal formwork and prefabricated building elements. As a result, in the past year we were able to avoid the use of 18,470 tonnes of timber.

In line with our aim of increasing use of timber from sustainably managed forests, in the past year we have commenced a pilot project on the use of timber doors from accredited sustainable sources.

Hazardous Waste Control

Fluorescent tubes and bulbs

In line with legal requirements for the proper disposal of spent florescent lighting tubes and bulbs, in 2005/06 we sent 192,724 tubes and bulbs for safe disposal. As at 31 March 2006, a total of 365,156 of these mercury-containing tubes and bulbs have been transferred to EPD's Chemical Waste Treatment Centre for safe disposal.

Asbestos Removal

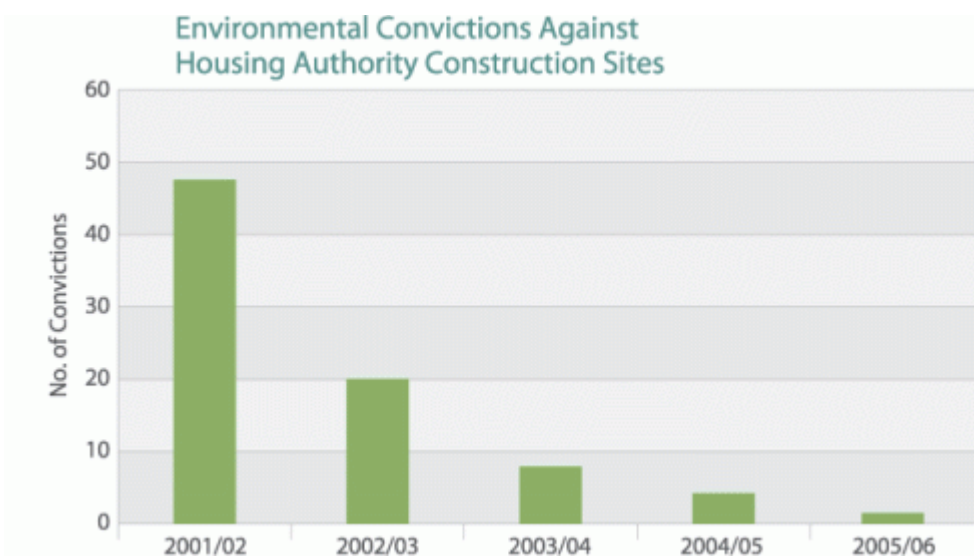
In the past year we safely removed about 82 m³ of asbestos-containing materials during the demolition of Cheung Sha Wan Flatted Factory. This work was a continuation of our ongoing Asbestos Abatement Programme and represents 1% of the asbestos-containing materials identified on our premises in a 2001/02 study.

Environmental controls for Flatted Factories

In 2005/06 our consultants finished a detailed study to examine the potential impacts on the environment from our tenants' activities in our existing flatted factory premises. We are now following up on the recommendations of the study and are implementing measures to better control and manage potential environmental risks associated with these factories.

Compliance

We continually keep track of our contractors' performance including thorough site inspections. In 2005/06, we have recorded only one environmental non-compliance incident (four in 2004/05 and eight in 2003/04) on one of our contractors for water pollution to a communal drain. This has since been rectified and a penalty imposed in accordance with the contract provisions.



Case Study : Sustainability in Practice - Environment

Life Cycle Assessment and Life Cycle Costing of Building Materials and Components

In response to our commitment to minimize the use of natural resources and achieve cost effectiveness in the production and provision of public housing, we commissioned a study on the combined Life Cycle Assessment (LCA) and Life Cycle Costing (LCC) of building materials and components that we use.

The key objectives of the study were to identify any significant environmental impacts associated with the use of materials, and to provide support to the decision-making process so that purchase of materials with lower environmental impact, if both technically acceptable and cost effective throughout their whole life span, can be facilitated. As such, the purpose of the study was to develop, in Housing Authority's context and from a whole life cycle point of view, an integrated decision support tool to help inform the procurement of environmentally conscious and cost effective alternatives.

As part of this major collaborative effort among Housing Authority, Business Environment Council, Davis Langdon & Seah Management Ltd and Hong Kong University, in 2004/05 we completed the study to understand the environmental and cost performance of our New Harmony Block 1 design over its entire life cycle.

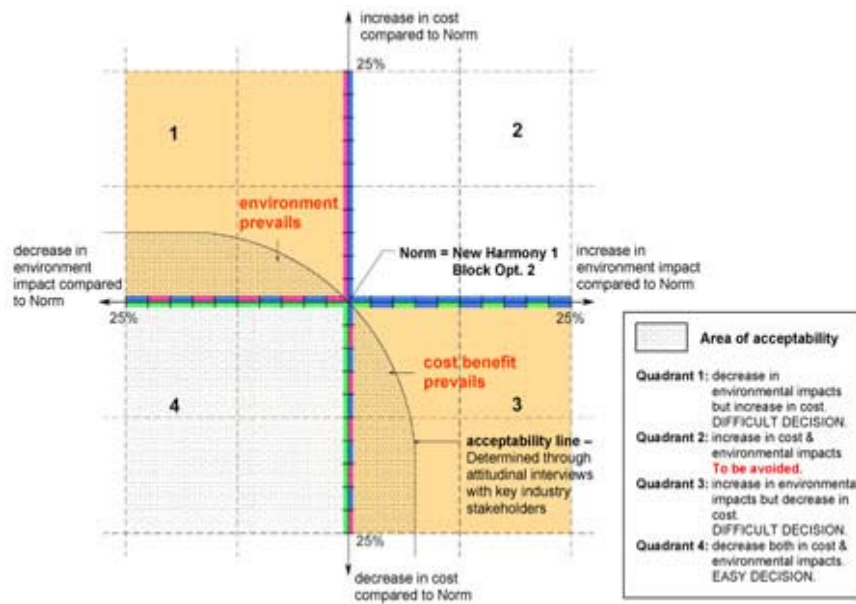
The direct outcomes of the study were:

- an in-house database and technical guidelines of Housing Authority's major building materials, taking into consideration LCA and LCC; and
- a procurement strategy and specifications for more environmentally friendly materials, which are technically and economically viable.

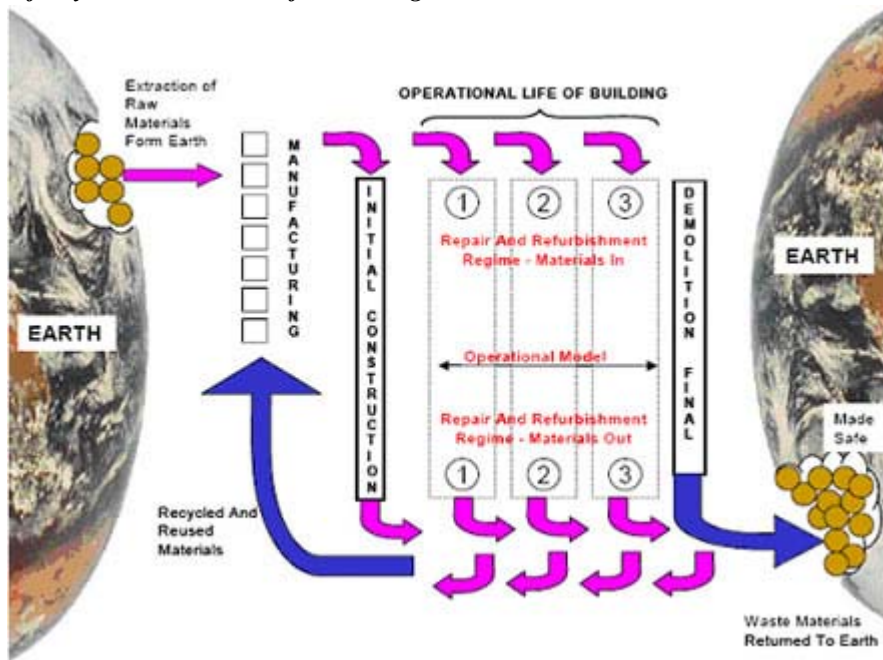
As part of this study, an interactive computer programme has been developed which allows our architects and structural engineers to examine whether environmental and cost benefits can be gained by incorporating alternative materials in the design. As such, this tool can answer questions on whether using alternative materials can improve the environmental sustainability of the design and is an invaluable decision-making tool in our procurement decisions.

A reference 'acceptability line' was developed based on the study. The line marks the corresponding acceptable cost and environmental impacts interactions and is applied for all of the common building materials used by the Housing Authority. As such the Life Cycle Assessment assisted the decision making over the use of certain building materials and components when our staff consider its cost and environmental consequence. Our aim is to ensure that all of the materials we use fall within the acceptability area, whereby environmental impacts are minimized with reasonable cost.

Life Cycle Process Flow of a Building Material



Life Cycle Process Flow of a Building Material



This forms a tool for us to make the best decision both financially and environmentally and therefore makes itself a significant contribution to achieving sustainable building designs.

Social Performance

Safety

Construction Safety

Along with our environmental policy, we have also developed a safety policy to protect the welfare of all our stakeholders. We have adopted safety measures for our contractors, our residents and our staff.

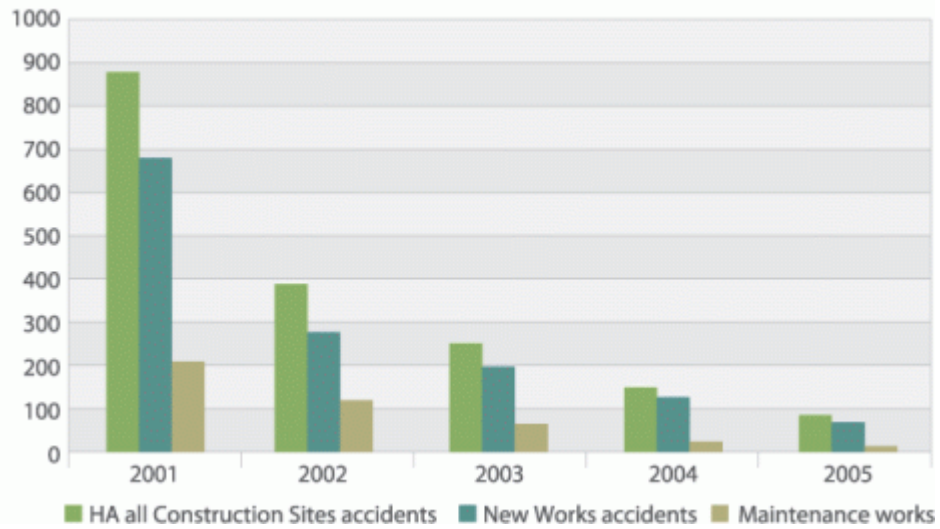
This year, we continued to implement the Housing Authority Safety Audit Scheme (HASAS), developed and operated since 1996 to assess site safety performance of our contractors. We applied this to over 30 piling, demolition, site formation and building contractors resulting in a safety audit score. These scores are linked to payment under the Pay for Safety, Environment and Hygiene Scheme (PSE&H), wherein contractors are only paid if their audit scores are 70% or above; and serve as critical considerations leading to suspension from tendering.

A pilot project has been undertaken at the Kwai Chung Flatted Factory to significantly increase the use of precasting and prefabrication from our usual levels of 18% to over 60%, a construction method that will enable safer and cleaner site conditions as on-site construction work and wastes generated from our construction processes are minimized.

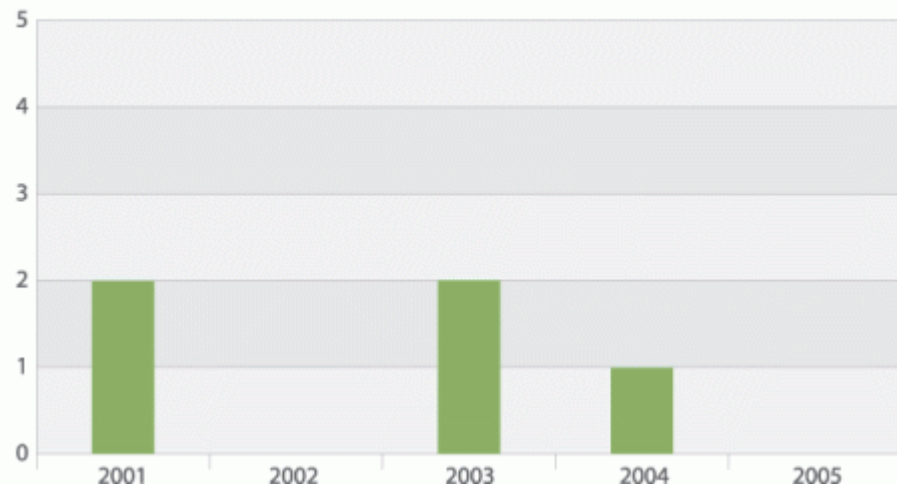
Safety awareness and best practices are promoted through safety seminars and support of the safety publicity campaigns. We are proud to say that many of the major safety awards were won by contractors undertaking Housing Authority construction projects. These awards reflect the effectiveness of safety practice on our sites.

Our safety indicators demonstrate that our safety initiatives and programmes are successful. In fact, safety data for 2005/06 showed improved performance in all Housing Authority contracts, new works, and maintenance works. For example, the accident rate for new works per 1,000 workers has decreased from 55.8 in 2001/02 to 21 in 2005/06, which is significantly lower than the average accident rate for the construction industry in Hong Kong (59.9 per 1,000 workers in 2005, Labour Department, HKSAR Government).

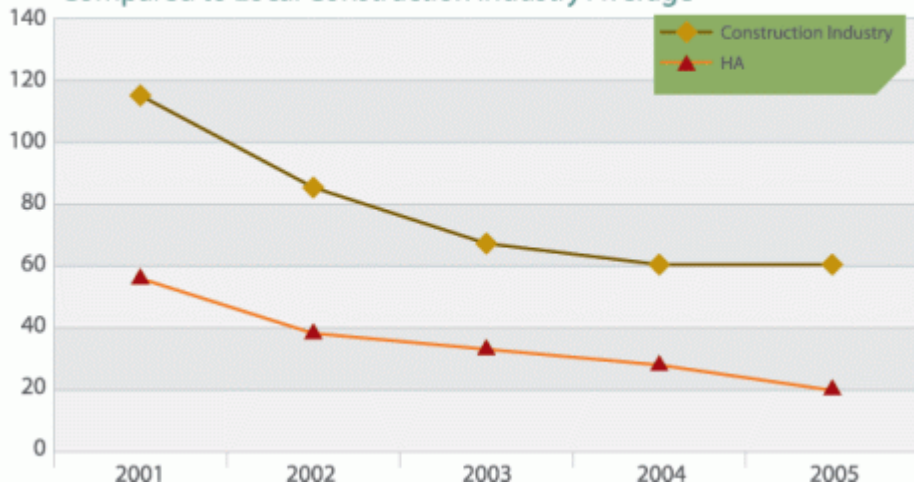
Accidents at Housing Authority Construction Sites



Fatality Data



Accident Rate for New Works per 1,000 workers, Compared to Local Construction Industry Average



Source of Reference: <http://www.labour.gov.hk/eng/osh/content10.htm> (Statistics up to 2005).

Building Safety

Safety in our estates has always been a priority. As such, we have developed and implemented, among others, the following policies and programmes to ensure the health and safety of our tenants.

Highlights in 2005/06 include:

Housing Estates

- Implementation of the Total Maintenance Scheme ;
- Initiation of a HK\$68 million maintenance programme of aluminium windows in 140,000 Public Rental Housing (PRH) flats in 213 Harmony blocks in over 53 estates built before 2000 and a general public alert on window safety;
- Replacement of worn or damaged fire service installations, launch of the Estate Fire Safety Campaign mini website in August and organization of our annual Fire Safety Roadshow which involved over 11,000 public housing tenants;
- Improvements by the installation of handrails and pedestrian ramps in older estates to facilitate access by the elderly and disabled; and
- Banning of wax burning, particularly during Mid-autumn Festival in common areas under our management.

Total Maintenance Scheme

The Total Maintenance Scheme will provide door-to-door visits to public housing estates to identify specific maintenance needs over the next 5 years. From its commencement in February 2006, over 1,770 flats have been visited and 1,241 works orders were issued by the end of March 2006. Identified items fall mainly under the categories of concrete fatigue, faults in drainage and sewerage systems and water seepage. The Scheme encompasses a whole new proactive approach to identifying maintenance problems and preventive repairs. It also provides opportunities to interact directly with tenants to promote the concept of housing safety and maintenance. The scheme aims to complete the inspection of 30 estates in a year and of all public rental housing flats in a five-year cycle.

Engaging Residents in the Total Maintenance Scheme



Factory Estates

We have commenced implementation of the Factory Marking Scheme to deal with the irregularities generally found in Housing Authority's factory estates. Penalty points are allotted based on the seriousness of misdeeds and tenancy termination by the Housing Authority will result when 16 marks are allotted within a two-year period.

Hygiene and Health

Our safety and environmental policy also covers hygiene and public health quality. Associated measures improve health among our stakeholders and are tied-in with our safety and environmental initiatives. More specifically, we have implemented the following measures to improve hygiene and health of our stakeholders and mitigate the impacts from our or our contractors' operations:

- Continued enforcing our measures on anti-mosquito breeding. This includes intensification of inspections by estate management and site supervision staff on mosquito breeding 'black spots'. This year, two convictions were served on one of our contractors for failing to prevent mosquito breeding. Promotion posters and Estate Management Advisory Committee (EMAC) newsletters were also posted and distributed to tenants to raise awareness of anti-mosquito breeding;
- Continued implementing the Marking Scheme for Tenancy Enforcement, which allotted points to tenants committing identified hygiene and public health misdeeds. In 2005, three PRH tenants had received notice-to-quit s for the tenancy;
- Spearheaded 'Operation Tai Ping Tei', HKSAR-wide cleansing campaign to promote good personal hygiene practices in public housing estates and encourage tenants to keep estates clean;
- Continued to implement regulations for keeping dogs in housing estates;
- Prevention of Avian Influenza (see details below);
- Developed a common w-trap system for drainage works to prevent spreading of disease through dried up floor drains for new estates under design; and,
- Undertaking the installation of [air conditioner drains](#)

Air Conditioner Drains



Prevention of Avian Influenza

We strictly enforced a fixed penalty fine of \$1,500 and five demerit points under

our Marking Scheme for Tenancy Enforcement. This fine was levied on violators to deter tenants from feeding wild birds in PRH estates which impacts upon public hygiene.

We also fenced off open spaces vulnerable to occupation by wild house crows at Lai On Estate and Sham Shui Po for thorough disinfection following a suspected case of H5 avian influenza after a house crow was found dead in the estate.

As of this year, we have served 10 convictions for feeding wild birds within the estate premises.

Employee Development

Our staff are an essential component of achieving our sustainable housing vision. As such we continually strive to ensure that as far as possible they are motivated, efficient and provided with appropriate commensurate benefits.

Beginning in late 2002, Housing Authority has been experiencing reorganization. It is especially important during these times to ensure staff are kept well informed of these developments and that help is provided for coping with and embracing the transition to meet the new service requirements.

We have also conducted various initiatives for HA staff, for example, activities organized by the HA Staff Club, active communication with staff, and obtain feedback to enhance operational effectiveness.

Change Facilitators: Reorganization of Department

The 2003 plan requires the Housing Authority to streamline its structure by 30%, i.e. a reduction of around 3,500 posts, over 5 years from 2002 to 2007. In 2005/06, 276 posts were deleted, representing a 3% reduction as of end of March 2005. By end of March 2007, 380 posts are expected to be further deleted through natural wastage. This shall meet the overall target, following which no further significant changes are expected.

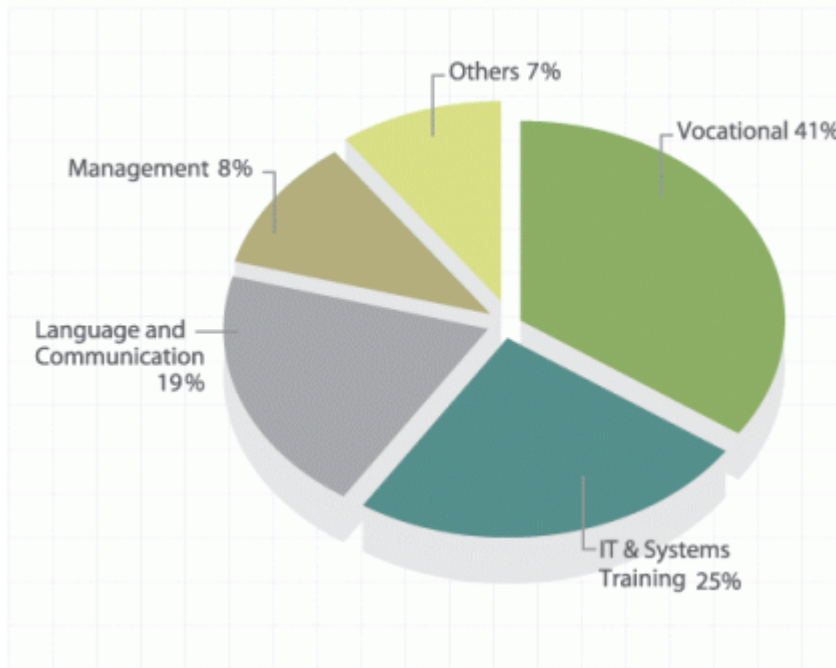
Key developments in 2005/06 include:

- Succession plan development - Candidates identified under this scheme will receive intensive and fast track management and developmental training to ensure that they are ready and available to take on greater responsibilities as and when the need arises;
- With the LINK divestment in November 2005, staff previously engaged in work related to those divested properties have been redeployed mainly to the Estate Management Division;
- Implementation of new human resource-intensive programmes such as the Total Maintenance Scheme and Comprehensive Structural Investigation programme made possible by the redeployments as a result of the LINK divestment and our

structural changes;

- Our Training and Development Centre (T&DC) continues to work closely with division heads and different stakeholders to identify training needs and develop training plans, and with line supervisors and staff to improve training programmes; and
- Enhancement of the e-Learning and e-Nomination systems to encourage learning on the web.

Trainee Days in 2005/06



Our Web Portal is a Win-Win

Our e-Learning portal received the internationally acclaimed Excellence in Practice Award in the Learning Technologies Category by the American Society of Training and Development in 2005.



We have worked closely with the Housing Authority Staff Club in launching a

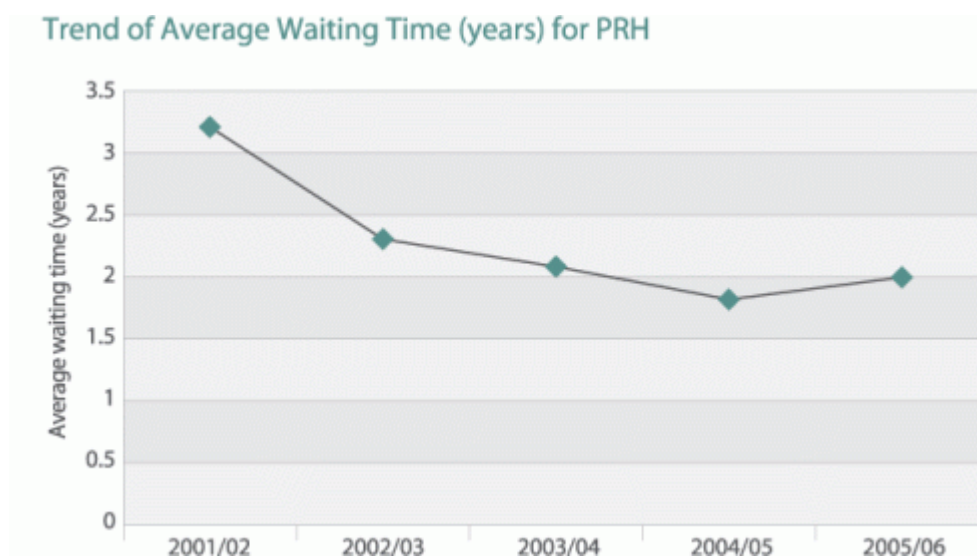
series of 'Balance Work - Life' Seminars that included knowledge and experience-sharing with leading specialists and prominent speakers in stress management and health-related issues which helps our staff develop a healthy and supportive work-life perspective.

Our Contribution To Society

Housing Management and Allocation

During 2005/06, the Housing Authority continues to provide subsidized rental housing to those who cannot afford to rent accommodations in the private market. It also assists Government in maintaining the AWT for PRH at around three years.

In absolute terms, this means that in 2005/06 we have provided some 41,000 families with new homes through our PRH programme, with around two-thirds of this number being allocated to Waiting List applicants.



The challenge continues ahead as demand for PRH housing remains very strong, with an average of 3,400 new applications being registered each month and an estimate of around 100,000 applications on the Waiting List.

To ensure housing resources are efficiently allocated, we have effectively utilized the Tenancy Management Module of our Estate Management and Maintenance System. Apart from this, our District Tenancy Management Office and a special unit, the Public Housing Resources Management Sub-section (formerly known as the *Task Force Against Abuses of Public Housing Resources*), work closely together and are demonstrating excellent progress and achievements in their work and liaison with other government departments (eg the Police, the Customs and Excise Department,

etc.) in ensuring housing resources are appropriately managed and abuse-free.

Types of Housing Resources Abuse

- *Non-occupancy / undue vacancies;*
 - *Shared Rental to unauthorized persons;*
 - *Illegal use (eg gambling, drugs production/storage, sale of pre-taxed cigarettes, prostitution);*
 - *Unauthorised conversion to non-residential purposes (eg commercial, manufacturing, etc.);*
 - *Applicant's false information; and,*
 - *'Front-dealing' or 'fore-running' in the sale of TPS units or rental of PRH units.*
-

In particular, during 2005/06, the Task Force:

- Implemented the policies pertaining to the Housing Subsidy Policy, the Policy on Safeguarding Rational Allocation of Public Housing Resources, the Grant of New Tenancy and other tenancy management policies that covers 160,000 households which is equivalent to a quarter or all PRH households;
- Conducted in-depth income and assets audits of over 4,200 cases;
- Detailed investigations of over 5,800 cases of suspected abuse of housing resources;
- Un-notified audits of 11,000 units in our factory estates suspected of unapproved alterations into units for residential purposes;
- House visits to Rent Allowance for Elderly Scheme (RAES) recipients living in private housings to prevent abuse; and
- Investigation into 157 cases of PRH tenants' ownership of private properties.

The work of this task force has increased retrieval of PRH units in 2005/06.

In addition, we have fostered the following schemes to better fulfil our overall goal to provide affordable, sustainable and timely housing for the general public:

- Implementation of three Territory-wide Overcrowding Relief (TWOR) exercises which resulted in the successful re-housing of 1,072 overcrowded families into larger flats, constituting a drop of the total number of overcrowded families to 5,103 as of March 2006. This represents 0.8% of total PRH households, thus meeting our performance pledge to keep this percentage below 1.0%.
- Enhancement of transfer opportunities for tenants by the endorsement of the Living Space Improvement Transfer Scheme, under which tenants living below seven square metres internal floor area per person may apply for transfer to a larger flat. Since the launch of the programme in January 2006, we have received 3,989 applications.
- Endorsement by the Subsidized Housing Committee (SHC) of an annual quota for non-elderly one-person applying for PRH and the establishment of a point system to accord priority to applicants of higher age. Points are assigned to applicants based on age, existing PRH tenancy and accumulated waiting time.
- In December 2005, our SHC decided to further relax the Rent Assistance Scheme

(RAS) for tenants with financial hardship. Starting in March 2006 the new eligibility criteria include:

- Consistent criteria for non-elderly households as with those for elderly households;
- Rent-to-income ratio being lowered to 'exceeding 20%' from a previous 'exceeding 25%';
- Tenants having a monthly income below 60% of the Waiting List income limit are eligible for assistance; and
- Cancellation of the three-year residence requirement for households living in older block types in order to be eligible for the RAS.

Keeping of Pets

Since 2003, we have continued to implement our arrangement for keeping dogs in housing estates. Dogs can only be kept within the housing estates if they have been kept before 1 st August 2003 and with permission of estate office. We released a set of conditions and regulations for fulfilment of dog-owner tenants and ensure safety to other residents, which include hygiene, health and safety issues.

Others

With regard to further enhancing the general quality of living standard in our estates, we have:

- Launched the second phase of the Laundry Rack Subsidy Scheme in April 2005 (under the Housing Department's regime) to assist tenants replace their pole socket facilities;

Replacement of Pole Socket Facilities



- Endorsed a number of improvement works for the visually impaired in PRH and Tenants Purchase Scheme (TPS) estates. Works are expected to complete in the next 3 years. These include: tactile guide paths, posting of braille letters in specified areas and provision of dropped kerbs and ramps; and
- Carried out modifications to suit tetraplegics residents of public housing such as modifications and enlargements of bath and toilet compartments, handrails and railings, adjusting electricity switches for easy use, ceiling mounted hoist at the bed and toilet areas and improving ramp slopes at the entrance of the flat. As of 2005/06, four applicants have been provided flats with these modifications.

Our care to the community also extends to serving the elderly community that resides in our estates. In 2005/06, we:

- Celebrated the 10 th Anniversary of our Volunteers for Seniors Day, reaching the milestone of 100,000 accumulated voluntary service hours for over 10,000 elderly public housing tenants; and,
- Organized the Healthy Aging in Public Housing Campaign.

Case Study: Comprehensive Package for Workers' Security

In 2005/06, we regained control of three of our public housing construction projects due to the failure of one of our major contractors to comply with contractual requirements. Among other matters, wage arrears due to workers were controversial and urgent. This case has alerted us on the shortcomings in the contracting and subcontracting systems throughout the industry.

Both the industry and the public were very concerned about the recent wage arrears cases. The traditional practice of multi-layered sub-contracting often ends up in ambiguous appointment and employment relationships. The lack of formal employment agreements and associated wage records further complicates the situation.

After building on the experience gained in some Government pilot projects, we consulted the industry, including sub-contractors and workers, and have developed improvement measures to secure and monitor the payment of wages to workers which have been adopted in building contracts and nominated sub-contracts from May 2006. We also hope that the building quality and ethical standard of the industry could be enhanced through this initiative.

Dispute on Contractor's Payments to Workers



After intensive liaison with the Labour Department, the Environment, Transport and Works Bureau and industry representatives, we embarked upon a revision of our contractual requirements, with the strong belief that our new tightened measures in the revised requirements shall improve the overall welfare and stability of employment for workers engaged in our sites by the introduction of monitor controls and behavioural incentives in subcontracting practices.

Our measures include:

- Mandatory use of Workers Employment Agreements and labour records for all contractor and sub-contractor labour;
- Wage payment Monitoring System and Records;
- Paying workers by traceable autopay arrangements;
- Deployment of Labour Relations Officers to monitor wage payment to workers and receive complaints and inquiries from workers;
- Authority to deduct relevant sums from contractors for direct payment of wages to workers in proven cases of default; and,
- Removal from our List of contractors or suspension from tendering for proven defaults under the List Management System.

One important task was to promote awareness of the Housing Authority's improvement measures for securing workers' wage payment among our stakeholders in the industry, especially sub-contractors and workers. As such, a joint working group for securing wage payment to workers has been established in 2006. Its duties include monitoring the implementation of the improvement measures in HA projects; reviewing and recommending further improvement and assisting HA to convey the message that our measures are working to protect workers against wage arrears, as well as protecting contractors and subcontractors from being adversely affected by the problem.

Joint Working Group for Monitoring Wage Payment to Workers



Implementing the Voluntary Subcontractors Registration System and Construction Workers Registration Scheme in Hong Kong would also be vital in enhancing the transparency of the whole industry and will be one long-term fundamental solution.

Economic Performance

Business Overview

In order to meet our vision of helping all families in need to gain access to adequate and affordable housing, we are fully committed to the followings:

- 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; and,
- To maintain a competent, dedicated and performance-oriented team.

Our core values are: Caring, Customer-focused, Creative and Committed.

The Housing Authority has 9,114 staff (as at 31 March 2006) working towards achieving our role as Hong Kong's sustainable public housing provider.

As at the end of March 2006, out of the 6.9 million residents in Hong Kong, around 30% live in public housing estates. To meet Hong Kong's increasing public housing needs, we have brought into service an additional 17,200 PRH units in 2005/06.

As of March 2006, 68 projects were under initial development and 35 projects (around 60,000 units) were under construction.

Our Construction Work Generates Local Employment



We aim to provide safe and affordable housing for those who cannot afford private

rental housing - and to do it responsibly, efficiently and as cost-effectively as possible. Such a provision over the years is regarded as an indirect contribution to the society. People in genuine need would have affordable housing so that they can spend more of their income on health, education and other aspects to contribute to their quality of living, and in turn to the prosperity of our society.

Financial Performance

Supporting the vision and mission of the Housing Authority, quality financial management through a 'best practice' approach remained our key focus in 2005/06. We continued to explore the opportunities to improve and strengthen our financial and risk management process, in order to provide maximum financial and business value in all our activities.

Financial Position

The Housing Authority's cash balance at end of 2005/06 was \$50.6 billion, representing a substantial increase from last year. This was mainly due to the cash received from the divestment of retail and car park facilities in November 2005 (see *Major Developments*).

Major Developments

The Link REIT Divestment

The Housing Authority divested 180 of its retail and car park facilities as The Link REIT. The Link REIT, listed on the Hong Kong Stock Exchange in November 2005, was the biggest privatization of its kind in Hong Kong . This divestment has led to a considerable increase in cash balance of the Housing Authority.

Subsidized Housing

In support of the Government's efforts to consolidate its housing policies and to minimize intervention in the property market, we have ceased the production and sale of Home Ownership Scheme (HOS) flats since 2003 . The remaining surplus HOS flats will be sold to eligible applicants in phases from 2007 to 2009. The last phase of Tenants Purchase Scheme (TPS) was launched in August 2005.

The Link REIT Global Offering



Capital Expenditures

The total capital expenditure of the year 2005/06 was about \$3.8 billion. This is around 50% of the previous year's expenditures. The lower capital expenditure this year was mainly due to the slow down of public housing programme.

Managing Housing Resources To Meet Market Demand

In September 2005, we have revised our allocation policy for non-elderly one-person applications and set aside an annual quota of about 1,000 to 2,000 flats. This represents about 8% of the total number of PRH units available to all Waiting List applicants. Further, a point-based system has been introduced to rationalize the allocation of PRH flats to these applicants. The higher the points, the earlier the PRH units are offered to the applicant. This system is expected to efficiently allocate PRH units to those who need it the most.

In August 2005 we launched the sale of the last phase of the Tenants Purchase Scheme (TPS) units. A total of 23,290 flats in five public rental housing estates (including Cheung Fat Estate, Fu Shin Estate, Nam Cheong Estate, Long Ping Estate and Tsui Lam Estate) were put up for sale in various stages.

To facilitate better mobility in the property market, in May 2005 (ie a few months before we started selling the last phase of TPS) we decided to allow Home Ownership Scheme (HOS) and TPS flat owners to pay the premium after the lapse of the first two-year alienation restriction period.

We also ensured optimal recovery of PRH units and reduced rent arrears and vacancies through the followings:

- Implemented better tenancy controls involving increased home visits by the

District Tenancy Management Office and continued investigation of cases of tenancy abuse by the Task Force Against Abuses of Public Housing Resources.

- Introduced a set of measures to reduce the rent arrear:
 1. Promoted the use of a direct payment arrangement with the Social Welfare Department for those receiving subsidies;
 2. Use of auto-pay;
 3. Decreased the time frame for issuing Notices to Quit to late rent-payers; and,
 4. Ensured that outstanding payments are cleared before renting another PRH unit.
- Initiated vacancy reduction measures such as shortening the turnaround time between housing offers and decreasing the acceptance formality stage from 14 to 10 days.

Ensuring Cost-Effectiveness and Quality

We work at improving our relationships with contractors and property service agents through enhancement of tendering practices and introduction of new initiatives. We undertook the following activities to ensure better procurement practices:

- Improvements to our Premier League Scheme of new works building contractors as well as a review of our Guide to the Registration of Contractors help to ensure the quality, cost-effectiveness and timely delivery of our operations;
- Pre-qualification exercises where specialist expertise is required (eg Kwai Chung Flatted Factory site project);
- Launched the Modified Guaranteed Maximum Price (MGMP)/Open Book Contracting Model in a pilot project to generate cost-saving incentives from contractor and integrate contractor's expertise and innovation thus enhancing design and buildability of the project;
- Providing opportunities to contractors exceeding qualifying levels on a semi-annual basis;
- Assessment of tenders of property service contracts based on a two-envelope scoring system which takes into account both technical scores (including contractors' past performance) and management proposals; and,
- Introduction of the e-payment card for easier and quicker monthly rents payment processing. The wider adoption of e-payment is expected to save up to HK\$20 million each year in operating and staff costs.

Effective Building Control

To ensure quality in the construction of our estates, we have established the Independent Checking Unit (ICU) in 2000 to conduct third party building controls for all of our new projects. The independent checking covers a complete cycle of any typical new construction project, starting from demolition of old buildings and ground investigations through construction, commissioning, and hand-over to occupation of existing building. Before any work can commence on our sites, ICU approval on the design submission and consent for the commencement of construction works must be obtained. The ICU then monitors the construction process based on Building

Department's standard methods. This system has been proven to be very effective in quality control, particularly with regard to early identification of problems and implementation of timely corrective actions for complex contracts. We are currently extending the system to cover improvement and alteration works on our existing building stock.

Operations

We have also introduced a flexible renting mechanism for shopping centres and car parks that are not included in Link REIT. Short-term tenancy has been allowed on those premises so as to minimize vacancy and maximize our asset value. Some of those areas with high vacancy were transformed to community or recreation facilities.

We also widely use information technology system to streamline operations and enhance efficiency of our service. The Revenue Management Module of the first Phase of our Estate Management and Maintenance System (EMMS) and the Housing Construction Management Enterprise System (HOMES) were introduced at all our estates and new construction respectively. The HOMES facilitates the management of our construction programmes and projects while the EMMS enables the payment of rent at any collection office, making it significantly more convenient for our tenants. The introduction of an e-Payment card has also appreciably improved efficiencies in rent collection.

Upgrading our Assets

Our improved financial position has enabled us to re-invest into our existing housing estates by rolling out upgrade programmes such as the Total Maintenance Scheme. Commenced in February 2006 and worth HK\$6.3 billion, the scheme provides better service to our tenants. A set of technical criteria was created in conjunction with both local and international specialists to assess the condition of older estates and provide options for their preventive maintenance, restoration as well as the strengthening to ensure their structural safety. We have also undertaken comprehensive structural investigations for the older estates and enhanced their preventive maintenance, restoration and improvements. As a result of these investigations, we announced in March 2006 that So Uk Estate would be cleared. While the 16 blocks involved are all structurally sound, the extensive repairs required would, apart from the nuisance and disturbance to tenants, not be cost-effective. As such, the 5 316 flats will be cleared in two phases in 2008 and 2011. The life of Sai Wan Estate however will be prolonged for a further 15 years, with the necessary repairs being carried out as part of our routine maintenance programme.

Stakeholder Engagement

We believe that our vision for sustainability is to the benefit of all our stakeholders. We know that clear and ongoing communication play an essential role in our activities, ensuring that our stakeholders are fully informed of what we do, while also giving them an understanding of, and ability to respond to, our initiatives to help ensure their success.

We have identified our stakeholders as those who are an integral part of our operations and form an essential role in meeting our vision for sustainable housing. They are:

- Residents in our estates;
- Business partners, including contractors and sub-contractors;
- Our staff;
- Other government colleagues;
- District Councils;
- Green Groups;
- Educational and Professional Institutions; and,
- The media.

Examples of our various mechanisms and programmes to maintain stakeholder dialogue in our processes for development plans and new proposals include:

- The Estates Management Advisory Committee (EMAC), which has just celebrated its 10th year as a venue for local level participation in estate management. The EMAC continues to make suggestions on day-to-day management issues and minor improvement works, assist formulating estate action plans and assessing contractors' performance .

Event Organized by EMAC Played a Vital Role on Stakeholder Engagement



- Regular tenant surveys for the Property Management Agency;
- A three-month public consultation was launched in March 2006 on the review of

our domestic rent policy (see *Your voice counts: Rent Policy Public Consultation*);

- Our new long-term community environmental programme ' *Green Delight in Estates*' in collaboration with a number of local green groups was rolled out in 2005 at 30 estates, with extension scheduled to cover all Public Rental Housing (PRH) estates over the next few years;
- 'Estate Green Fun Day' was held in 17 estates during last year to encourage tenants to carry out green practices at home for good health and hygiene within our estates;
- In 2005/06, 13 project partnering workshops with our consultants and contractors were organized at the early stage of building contracts to share experiences, to establish common project goals and communication channels. After residents' in-take, five post-completion reviews were held with the participation of HA project team members, resident representatives, contractors, consultants, estate management agencies with the main objective to understand how well our estates meet user needs and expectation; and
- Consultation and the resultant provision of barrier-free access to our new developments and existing estates. Our design planning goes far beyond the existing requirements for facilitating mobility of the disabled and the elderly.

Your voice counts: Rent Policy Public Consultation

In March 2006, we launched a three-month consultation programme to invite public views on the review of our domestic rent policy. We aim to develop a policy that is flexible and rational, has a closer link to tenants' affordability and helps promote the long-term sustainability of the public housing programme. The responsible ad-hoc committee has carefully considered public responses and drawn up the Report on the Review of Domestic Rent Policy setting out its final recommendations. One of the most important reform proposals put forward is the development of an income-based rent adjustment mechanism which provides for both upward and downward adjustment in PRH rent according to the changes in tenants' household income. The Report was considered and endorsed by the Housing Authority in November 2006. The Government introduced an legislative amendment bill with provisions governing the recommended rent adjustment mechanism in January 2007.

Communicating with Our Tenants

We continue to utilize the 'Housing Channel' to communicate housing-related messages to PRH tenants. Liquid Crystal Display (LCD) monitors have been installed in the ground floor lift lobbies of residential blocks for the Channel to effectively reach its target audience.

In 2005/06 we produced over 50 videos on an array of housing-related topics, such as developments in the Review of Domestic Rent Policy, the Total Maintenance Scheme, the Rent Assistance Scheme, as well as green practices. These videos were uploaded onto our website so that they are easily accessible to tenants and the public. We also continued to provide suggestion boxes at places convenient to our tenants and to use suitable posters to serve as a way of providing information to our

tenants.

In addition, the EMAC newsletters are distributed directly to each household semi-annually to update residents on important housing issues and estate news.

In general, we make it a point to conduct stakeholder consultations as early as the planning stage of our developments. We believe that presenting to them our plans and listening to their concerns is one of the keys to our success.

Educational Activities on Personal and Estate Hygiene Rolled Out to Encourage Community Participation



Communicating with Our Staff

We have various channels to promote and facilitate communication with our staff. There are five Departmental Consultative Committees and the Occupational Safety and Health Sub-committee to provide a forum of discussion between the management and the staff side on matters of mutual concerns. We maintain close liaison with staff through goodwill visits, workshops, briefings and tea receptions. Staff can conveniently give suggestions through the staff suggestion boxes placed at office premises and also through the HA Intranet. We have in place the Staff Suggestions Scheme to give recognition and incentives to staff for their suggestions. In addition, our online newsletter, *Housing Dimensions*, is published bi-weekly to keep our colleagues posted of both corporate and staff news.

Our Staff Club regularly organizes events and activities for the Housing Authority staff. For instance, outings, sports classes and competitions, interest groups were held in the year to help enhance the work-life balance of our staff.

Online Newsletter to Enhance Internal Communications



Housing Dimensions is a bi-weekly newsletter published by the Housing Department, bringing you the latest development and information of the Housing Authority and the Housing Department. Your suggestions and comments are most welcome. Please click [here](#) for our online form.

For the archived issues from 13 June 2003 onwards, please click [here](#)

(Stories in Staff Corner are available in Chinese.)

Feedback from Tenants and Public

We conduct regular surveys to gauge our tenants' views on estate management. We conduct various customer satisfaction surveys and other ad-hoc surveys to tenants on issues such as the existing domestic block design. We also undertake regular Housing Return Surveys. Alternatively, tenants may bring forward their views to EMAC or local District Councils from which the views and suggestions are dealt with efficiently.

Operated and managed by the Housing Department Integrated Communication Centre (HDICC), the HD Enquiry Hotline serves as a main channel to address complaints and enquiries from tenants and the public. During this financial year, the HDICC has received over 790,000 calls, or a daily average of 2,200 calls. We also introduced the Complaints and Requests Management System (CRMS) in late 2005 to ensure complaints are efficiently handled.

Engagement of Local Green Groups and Tenants for a Long Term Sustainable Community Programme

With the aim of launching a sustainable programme with local green groups and community participation to continuously foster tenants' awareness on environmental protection and waste recovery, we rolled out the [*'Green Delight in Estates'*](#) in 2005 at 30 estates. The programme was organized in conjunction with the Conservancy Association, Friends of the Earth (HK) and Green Power and some 300 young PRH tenants were recruited as Green Estate Ambassadors. The Green Estate Ambassadors were properly trained on environmental protection concepts and were sent off to trumpet green messages.

We have adopted a train-the-trainer educational approach with our Green Estate Ambassadors. Each of the three green groups in the programme would design and implement environmental initiatives for ten estates and the programme would roll out in batches to all other PRH estates in the next few years.

Right after the *Green Delight in Estates* launching ceremony, the guests joined the Green Estate Ambassadors and members of the Housing Department Volunteer Corps to help single elderly tenants in Lok Fu Estate clean up their homes. This was believed to be a good start for sustainable engagement with our tenants and local green groups and ultimately to make our estates an environmentally friendlier place to live in.

As a result of this awareness-raising programme, we believe that there have already been benefits and we have noticed that there has been a behavioural change amongst our residents. For example, PRH tenants this year generated about 5% less domestic refuse than the previous year and maintained a continuous drop for the third consecutive year. Recent surveys in different estates undertaken by the Housing Authority showed that more than 70% of the participated tenants in the programme ranked themselves more aware of environmental issues.

We understand that environmental protection and environmental conservation are long-term commitments and would require a continued effort with engaging green groups and tenants. *Green Delight in Estates* demonstrated a good example of collaborated community-engagement effort among green groups, tenants, EMACs and non-governmental organisations.

Partners with Green Groups to Bring Green Delight in to Public Housing Estates



Layout of Certificate Presented to Green Estate Ambassadors



Green Estate Ambassador Workshops



Promotion of Source Separation and Reduce Use of Plastic Bags in Estates



Targets and Outlook

Way Forward

We want 2006/07 to be another year in which the Housing Authority improves its sustainability performance. Our commitment to sustainability does not end on when our targets are met. We are constantly challenging ourselves to ensure that our performance gets better each and every year. Therefore, we undertake the following:

- To be guided by our vision of sustainable housing and ensure that our sustainability initiatives align to this vision;
- Continue to implement and develop innovative and cost-efficient ways to protect and enhance the environment, particularly through the effective use of resources;
- Implement and adopt cost-effective procurement measures that benefit not only ourselves, but our business partners and contractors as well; and,
- Enhance communications with our stakeholders to ensure a quick response to their queries, and engage them on issues that matter to them.

To achieve these, we commit to the following targets:

To continue promotion of sustainability issues:

Awareness and Participation Targets

Targets

Promote environmental and safety awareness and practices in Housing Authority's workplace and PRH estates.

Increase tenants' awareness and support of greening by organizing tree planting days in selected estates.

Promote green management initiatives in PRH estates by organizing *Green Property Management Award* with green groups.

Enhance community awareness on environmental protection by launching campaigns to promote waste reduction and recycling in PRH estates and joint programmes with green groups and EMACs, including distributing environmental publicity materials to tenants.

Enhance staff environmental awareness and knowledge by soliciting and analyzing training needs, organizing seminars, displaying of environmental issues at HAHQ's Green Corner and providing environmental messages on the e-Learning Portal.

Promote environmental awareness in HOS estates by liaising with Property Management Agents (PMA) to organize activities for residents in HOS courts and by referring environmental messages from EPD to PMAs.

Enhance environmental protection awareness and knowledge of staff and the public by developing and launching an environmental mini-web onto the Housing Authority website.

To reduce water consumption:

Water Conservation Targets

Targets

Reduce flushing water consumption by conducting trial schemes in new projects, ie pilot project Shek Lei Phase 10 and conducting performance reviews.

Reduce potable water consumption for installations under landlord control in PRH estates by using self-stopping water taps and conducting replumbing programmes to minimize pipe bursting and leakage as well as studying the feasibility of using rain water for plant watering and general cleaning.

Enhance efficient potable water usage in shopping centres by installing self-stopping or movement-sensing water taps during toilets upgrading.

Record and monitor water consumption at HAHQs in meeting the target of water consumption to less than that of 2003/04. This includes performing initiatives to reduce water consumption as appropriate.

To enhance greening and landscaping:

Greening and Landscaping Targets

Targets

Provide green treatment (eg 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.

Upgrade the existing landscape in 18 selected PRH estates by improving soft landscaping through Landscape Improvement Programme.

Promote a green environment at 24 estates with EMAC support through the provision of green activities in these estates.

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

Enhance greening in PRH estates by allocating open areas in selected estates for setting up theme gardens.

To lessen safety and environmental risks:

Control of Hazardous Materials Target

Targets

Further abate the remaining asbestos-containing materials in existing Housing

Authority managed properties by implementing asbestos abatement programme through estate redevelopment programme and asbestos removal works.

To reduce noise nuisances:

Noise Nuisance Reduction Target

Targets

Reduce noise nuisance from water pumps in PRH estates by replacing 3,000 rpm water pumps with 1,500 rpm water pumps.

To maintain our waste management practices:

Waste Management Targets

Targets

Increase domestic waste recovery rate for paper, aluminium cans, plastic bottles and used clothes by arranging publicity activities such as Waste Recycling Credit Scheme for all PRH estates.

Promote waste reduction through various publicity campaigns with the aim to reduce generation of domestic waste.

Implement waste separation at source programme in all estates by phases

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

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

Reduce construction and demolition (C&D) waste and ensure proper disposal by developing a Construction Waste Index through conducting surveys of C&D waste.

Use environmentally-friendly paper in printing of all publicity materials (except sales and marketing publication) by implementing its use as a pre-requisite in all printing jobs.

To continue improvements on energy efficiency:

Energy Efficiency Targets

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 application of more energy efficient equipment by completing trial installation of solar powered lamp poles, adjustment of lift

counterweight settings and adopting a wider use of T5 fluorescent tubes.

Reduce energy consumption in shopping centres with central air conditioned systems by shortening operating hours of the air conditioners and lighting and undertaking initiatives to enhance staff awareness of energy savings.

Reduce energy consumption of office premises by performing various initiatives to reduce energy consumption.

Explore and study application of green design for building services equipment.

To improve our safety performance:

Safety Performance Targets

Targets

Continue to tighten monitoring of contractors with high accident rates.

Extend the 'Pay for Safety, Environment and Hygiene' scheme to building services nominated sub-contracts.

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

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

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

Continue to provide safety training to staff.

Consider expanding the Silver Card training and requirements to maintenance and improvement work contracts.

Issuance of consolidated safety manual and design checklist.

Keep accident rate to be below 25 accidents per 1000 workers.

To uphold our social contribution :

Social Performance Targets

Targets

Continue implementation of the Marking Scheme in all PRH estates and factories to enhance the living and factory environment respectively.

Conduct various initiatives for Housing Authority staff, for example activities organized by the Housing Authority 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 Housing Authority policies and initiatives through different publicity channels.

To fine tune our economic performance :

Economic Performance Targets

Targets

Complete the review of the Domestic Rent Policy and consult the public of the initial findings.

Continue to minimize the vacancy of PRH estates.

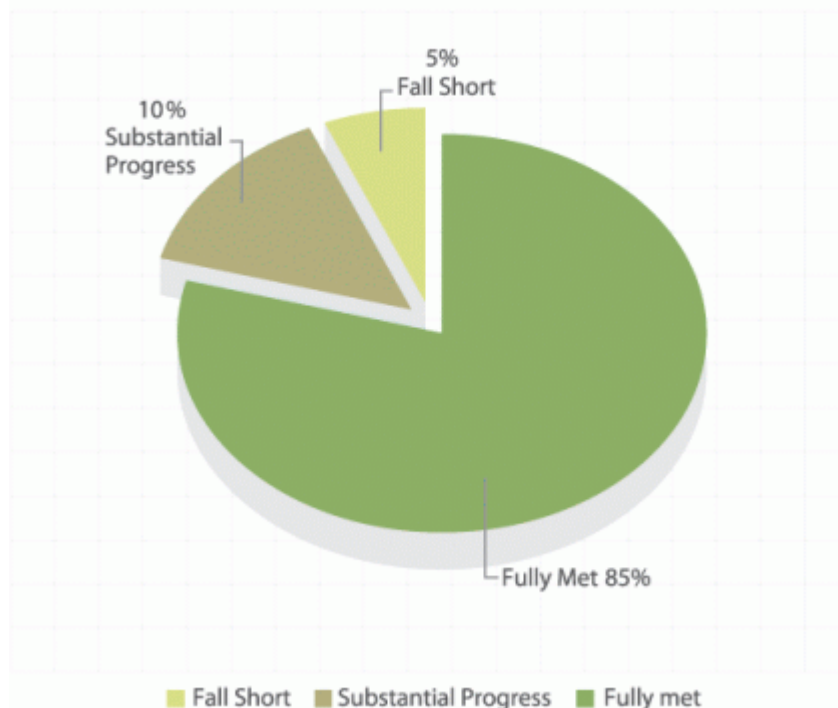
Conduct tenancy control and education campaigns to reduce abuse of housing resources.

Continue on assessment of older estates and enhance their preventative maintenance, restoration and improvements.

Previous Targets

Forty-one (41) environmental targets were made for the year 2005/06 ranging from waste management, awareness & participation, energy efficiency, greening, water, noise and hazardous materials. Of these targets, 35 were fully met, four achieved substantial progress and two fell short.

2005/06 Target Performance



Action Plan for Targets not Fully Met

<i>Targets</i>	<i>Progress</i>	<i>Action Plan for 2006/07</i>
<ul style="list-style-type: none"> Reduce construction and demolition waste to ensure proper disposal. 	<p>Quarterly surveys have been conducted and will be continued. The logging of data of 36 building contracts, three combined piling/building contracts and two external works contracts underway.</p>	<p>To finalize and promulgate guideline on selective demolition.</p>
<ul style="list-style-type: none"> Explore and study application of more energy efficient equipment. 	<p>The study report of the LED exit sign was discussed at the Building Services Design Review Panel (BSDRP) and its application was considered premature for implementation. The study on this aspect was concluded and no upgrade to the design guide would</p>	<p>Complete trial installation of solar powered lamps, adjustment of lift counterweight settings.</p>

be required.

■ Increase domestic waste recovery rate for paper.	12.16% recovery rate for paper as at 31 March 2006.	Arrange publicity activities such as Waste Recycling Credit Scheme for all PRH estates and go for an increase in paper recovery rate with reference to EPD's Domestic Waste Composition Survey.
■ Increase domestic waste recovery rate for aluminium cans.	19.3% recovery rate for aluminium cans as at 31 March 2006.	Arrange publicity activities such as Waste Recycling Credit Scheme for all PRH estates and go for an increase in aluminium can recovery rate with reference to EPD's Domestic Waste Composition Survey.
■ Increase domestic waste recovery rate for used clothes.	526 tonnes of clothes was recorded as at 31 March 2006.	Arrange publicity activities such as Waste Recycling Credit Scheme for all PRH estates and go for an increase in used clothes recovery rate.
■ Reduce noise nuisance from water pumps in PRH estates.	14 pumps were replaced. The replacement of two water pumps in the Model Housing Estate is in progress.	Replace 3,000 rpm water pumps by 1,500 rpm water pumps.

Annex

2005/06 Financial Year Performance of Environmental Targets by Division

<i>Item Nature</i>	<i>Targets & Initiatives</i>	<i>Action Plan</i>	<i>Key Performance Indicator (KPI)/ Time of completion</i>	<i>Target Met</i>	<i>Actual Performance</i>
CORPORATE					
1 A	Review and monitor the environmental awareness in public rental housing (PRH)	<ul style="list-style-type: none"> Provide input to the survey on PRH residents. Subject to the survey findings, provide input to EMD, HRD and CCRS of CSD to enhance environmental awareness of PRH 	Review annually	■	The awareness survey was conducted under "Green Delight in Estates", the partnering programme with green groups in Jun05 and Mar06 respectively as a series of pre- and post-programme survey. The survey findings will be

		residents.		presented to HDESC in Jun06.	
2	A	Monitor environmental awareness of housing staff and develop training and publicity strategies as necessary to enhance general awareness	<ul style="list-style-type: none"> Review the training and publicity strategies on environmental awareness with relevant officers from CSD Conduct an in-house telephone survey as appropriate 	Review annually	<ul style="list-style-type: none"> The Corporate and Community Relations Sub-division of CSD has been working on a mini environmental web site, which will be uploaded to e-Housing in mid 2006, as a means to promote environmental awareness to housing staff. Given its effect to enhance awareness will take time, the next attitude survey will be conducted in 2007 and in alternate years afterwards.
3	A	Collaborate with green groups to conduct environmental awareness programme in PRH	<ul style="list-style-type: none"> Conduct an estate-wide campaign for all PRH estates Conduct educational programme for 30 estates 	Review annually	<ul style="list-style-type: none"> The "Green Delight in Estates" with the three Green Groups was launched since 31.7.05. Regular progress reports have been submitted to HDESC or HDEC meetings for monitoring. All the proposed activities by the green groups are completed. The final progress report will be submitted to HDESC in Jun06.
4	C	Further abate the remaining asbestos containing materials in existing HA managed properties	Implement asbestos abatement programme through estate redevelopment programme and asbestos removal works	0.5% of remaining asbestos identified in 2001/02	<ul style="list-style-type: none"> In the demolition of Cheung Sha Wan Flatted Factory, the removal of asbestos was completed in Mar06. This totalled to 1% of asbestos removal of those identified in 2001/02.
5	E	Reduce electricity consumption of landlord services installation in new domestic blocks	Adopt energy codes	90% of completed projects obtained energy certificates	<ul style="list-style-type: none"> Energy certificates for Shatin 4C/38A, the project completed in 2005/06, have been obtained
6	H	Reduce water wastage in large diameter bore piling (LDBP) works	Adopt water recycling facilities in the construction of LDBP for construction sites	100% of new contracts using revised specifications	<ul style="list-style-type: none"> Standard specification clause on mandatory installation of waste water recycling facilities was promulgated vide Development and Construction Management Board Instruction (DCMBI) No. P10/05 dated 1.6.05. All new contracts from Jun05 onwards have adopted revised specifications.

7	G	Provide green treatment to newly formed slopes	<ul style="list-style-type: none"> • Soil slopes to be hydroseeded • Hard surface to be softened by planting of creepers, colour treatment, tree planting in pits or introduction of planter • Chunam surface to be improved with hydroseeding, stone pitching and toe planter 	100% of new projects	<ul style="list-style-type: none"> ■ All newly formed slopes in 2005/06 with a total area of 1 900 m2 were greenly treated.
8	W	Reduce construction and demolition waste and ensure proper disposal	<ul style="list-style-type: none"> • Develop construction waste index • Analyze results of trial scheme of selective demolition and develop guidelines 	Conduct quarterly surveys; and promulgate guidelines	<ul style="list-style-type: none"> ■ Quarterly surveys have been conducted and will be continued. The logging of data for 36 building contracts, 3 combined piling/building contracts and 2 external works contracts have been underway. DCMBI is being finalized to promulgate the guidelines and relevant specifications. As an interim, demolition of Cheung Sha Wan Flatted Factory has already adopted this method, and the result is satisfactory.
9	H	Reduce flushing water consumption	<ul style="list-style-type: none"> • Conclude pilot trial in HAHQs • Identify pilot scheme in a building contract 	Complete performance monitoring and analysis, and implement project	<ul style="list-style-type: none"> ■ Pilot trial in HAHQs was completed. Majority of tested models showed promising results. Development and Construction Management Board (DCMB) information paper was issued on 14.11.05. Shek Lei Ph 10 is identified as the pilot scheme, scheduled for completion in Mar07.
10	W	Implement the new waste handling system and thus improve the hygiene and cleanliness in housing estates	Install Central Compactor System/ Distributed Compactor System (CCS/DCS) in new development projects	100% of new developments (without ARCS) to adopt CCS/DCS	<ul style="list-style-type: none"> ■ The new system has been / will be installed in all projects completed from Sep05 onwards.
11	H	Install mandatory the water recycling facilities in all new building, piling and	Specification revision	100% of new contracts using revised specifications	<ul style="list-style-type: none"> ■ Standard specification clause on mandatory installation of waste water recycling facilities was promulgated

civil engineering
contracts

vide DCMBI No. P10/05
dated 1.6.05. All new
contracts from Jun05
onwards will adopt the
revised specifications.

12	W	Use sustainable timber doors	<ul style="list-style-type: none"> • Specification revision • Identify pilot projects 	Implement project in 2005/06	■	<p>Specification was revised. East Harbour Crossing Phase 4 identified as the pilot trial project is due to commence in Jun06.</p>
13	E	Explore and study application of more energy efficient equipment	<p>Trial studies on :-</p> <ul style="list-style-type: none"> • Light emitting diode (LED) exit sign; • self-luminous radioactive type exit sign; • solar powered lamp pole; • adjustment of lift counter- weight settings in a pilot project to reduce energy consumption 	Upgrade Design Guide in 2005/06	■	<ul style="list-style-type: none"> • The study report of the LED exit sign was discussed at the Building Services Design Review Panel (BSDRP) and its application was considered premature for implementation. The study on this aspect was thus concluded and no upgrade to the design guide would proceed. • Only marginal cost saving of the self-luminous radioactive exit sign was identified as compared with traditional designs. EMD was concerned about the licence fee and thus had reservations for its implementation. As agreed at the 21st BS Section Meeting on 2.3.06, no further action would be taken. • The solar powered lamp poles were installed in Shatin 4C/38A, Shek Kip Mei Phase 1 and Fanling Area 36 Phase 3. The evaluation report was under preparation. • Lift counterweight adjustment would be arranged in at least one estate for data collection in 2007/08.
14	W	Explore and study application of green design for building services equipment	Trial studies on: -	Upgrade Design Guide in 2005/06	■	<ul style="list-style-type: none"> • Trial of LFTSFH at Shatin Area 2B was completed and the study report was discussed at BSDRP. It was agreed that BSEs should take site









- low friction type street fire hydrant (LFTSFH)

- redesigning roof and sump tanks for dirt settling in order to improve flushing water


measurement of existing street fire hydrant nearby and WSD's datum of the service reservoir prior to its application in projects. Such requirement was provided to the Design Guide Coordinator for incorporation into the Design Guide.

- The initiative on improvement of flushing water quality was considered to be more appropriate for submission to the Liaison Group on Construction Quality (LGCQ) than for incorporation into the Design Guide. No further action would be taken.

15	G	Upgrade the existing landscape facilities in selected PRH estates	Improve soft landscaping through the Landscape Improvement Programme	110 000 m2	■	Landscape improvement for 110450m2 in 18 estates was completed. These are Sha Kok, Lee On, Wo Che, On Yam, Wu King, Shek Yam East, Wah Kwai, Sun Tin Wai, Lei Muk Shue II, Fuk Loi, Shek Wai Kok, Nam Shan, Choi Hung, Cheung Hong, Lung Hang, Fu Cheong, Pak Tin and Ping Shek Estates.
16	G	Promote green environment at PRH estates with Estate Management Advisory Committees (EMAC)	Provide greening in PRH through EMAC	5 000 m2	■	Greening improvement for 5 800m2 are carried out in 12 estates. These are Wu King, Shek Yam East, Nam Shan, Tsz Ching, Ap Lei Chau, Shun Tin, Sha Kok, Yau Oi , Tai Wo Hau, Fu Cheong, Pak Tin and Sun Chui Estates.
17	W	Increase domestic waste recovery rate for paper (Pa)	Arrange publicity activities to increase Pa recovery with reference to EPD's Domestic Waste Composition Survey (DWCS)	Recovery rate Note 2 of note3 14% of total Pa waste in 2005/06	■	12.16% recovery rate as at 31.3.2006. (i.e. 10141.3 tonnes recovered as against 83398.8 tonnes of the total estimated Pa waste from Apr05 to Mar06)
18	W	Increase domestic waste recovery rate for aluminium cans (Ac)	Arrange publicity activities to increase Ac recovery rate with reference to DWCS	Recovery rate Note 2 of note3 23% of total Ac waste in 2005/06	■	19.3% recovery rate as at 31.3.2006. (i.e. 128.6 tonnes recovered as against 666.3 tonnes of the total estimated Ac waste from Apr05 to Mar06)

19	W	Increase domestic waste recovery rate for plastic bottles (PI)	Arrange publicity activities to increase PI recovery rate with reference to DWCS	Recovery rate ^{Note 2} of 1.9% of total PI waste in 2005/06		3.2% recovery rate as at 31.3.2006. (i.e. 199.8 tonnes recovery as against 6243.8 tonnes of the total estimated P1 waste from Apr05 to Mar06)
20	W	Increase domestic waste recovery rate for used clothes (Uc)	To permit charity organizations collecting used clothing and to promote used clothes recovery in all PRH estates.	0.5% increase in Uc recovery of 533.5 tonnes in 2004/05, or 536.0 tonnes	 note4	526 tonnes of Uc was recorded as at 31.3.2006. (i.e. about 98.1% of the set target)
21	W	Reduce domestic waste	Promote waste reduction through various publicity campaigns (Environmental Family Competition, EMAC newsletters and activities, and other joint activities with green groups)	1% reduction of 0.78kg/person/day in 2004/05, or 0.77kg/person/day		0.74kg per person per day as at 31.3.2006 (i.e. 5.1 % reduction).
22	N	Reduce noise nuisance from water pumps in PRH estates	Replace 3 000 rpm water pumps by 1 500 rpm water pumps	15 replacements		14 pumps were replaced. The replacement for two water pumps in Model Housing are in still in progress and expected to complete in end June 2006.
23	H	Reduce potable water consumption for installations under landlord in PRH estates	Use self-stopping water tap and reduce pipe bursting and leakage through replumbing	0.5% reduction as compared with that in 2004/05		A decrease of 13% was recorded as against 2004/05.
24	G	Improve the slope appearance in existing PRH estates	<ul style="list-style-type: none"> Green treatment to hard surfaced slopes and improvement to existing vegetated slopes Chunam surface to be improved with hydroseeding stone pitching and toe planters 	10 slopes		Green treatment was applied to 10 slopes in six following estates: - Cheung Ching Estate (1 slope); Nga Ning Court (3 slopes); Nam Shan Estate (2 slopes); Wah Kwai Estate (1 slope); Lok Wah South Estate (2 slopes); and Choi Wan Estate II (1 slope).
25	G	Enhance greening in PRH estates	Allocate open area in selected estates for setting up thematic gardens	2 estates		Rhododendron Gardens (???) were set up at Lei Muk Shue Estate and Nam Shan Estate in May05 and Aug05 respectively.
26	A	Increase tenants' awareness and support of greening	Organize tree planting days in selected estates	3 estates		Tree planting was held at Nam Shan, Wu King and Shek Yam East Estates in Jun/Sep/Oct05 respectively.

27	W	Promote recovery of spent mercury containing lamps and bulbs	Launch the recycling scheme in five regions by phase	2 regions	■	The scheme was launched in all regions by May05.
28	A	Promote green management initiatives in public rental estates	Organize Green Property Management (GPM) Award with Green Groups	To partner with Environmental Campaign Committee as a co-organizer of the GPM Award, which is under the 2005 HK Eco-Business Awards	■	The GPM competition was completed and the award presentation ceremony was held in Mar06.
29	A	Promote environmental awareness in HOS estates	<ul style="list-style-type: none"> • Liaise with PMAs to organize activities for residents in HOS courts • Refer environmental messages from Environmental Protection Department (EPD) to PMAs 	2005/06	■	Up to end Mar06, PMAs have arranged 134 activities in HOS courts such as poster displays, collection of recycling materials, waste reduction/recycling competition, outings, etc. All environmental messages from EPD were disseminated to them.
30	W	Promote recovery of used rechargeable batteries	Launch the recycling scheme	All estates	■	The recycling scheme was launched in all estates.
31	W	Implementation of waste separation at source	Implement the programme in all estates by phases	30 estates	■	30 estates have joined the EPD's scheme to implement source separation of waste.
32	W	Reduce A3 and A4 paper consumption in HD offices except site offices	<ul style="list-style-type: none"> • Send regular reminders to staff regarding good practices and tips on paper saving • Send monthly paper consumption report to Division Administrative Secretariats to monitor paper consumption • Upload circulars/documents to the intranet instead of printing hardcopy for circulation 	139 577 reams, or 7.5% reduction as against that of 150 894 reams consumption in 2002/03 (which is in line with the service-wide targets set by the Policy Committee)	■	137 862 reams, or 8.6% reduction as against that of 150 894 reams consumption in 2002/03.
33	W	Collect waste paper in HD offices	<ul style="list-style-type: none"> • Send regular reminders to staff regarding good practices and tips on paper recycling • Distribute used carton boxes to officers for convenient disposal of waste paper • Conduct yearly Spring Clean Exercise 	150,850 kg, or 2% increase as against that of 147,892 kg collected in 2002/03	■	161,348 kg, or 9.1% increase as against of 147,892 kg collected in 2002/03.

34 W	Use environmentally friendly paper in printing of all publicity materials (except sales and marketing publication)	Implement the use of environmentally friendly paper as a prerequisite in future printing jobs	100% of paper used		100% up to end Mar06.
35 E	Reduce energy consumption in HAHQs	<ul style="list-style-type: none"> • Send regular reminders to staff regarding good practices and tips on energy saving • Conduct training courses and seminars for energy wardens to enhance their knowledge about energy saving • Set the air conditioning temperature at 25.5OC in summer months to align with the service-wide standard • Lower the lighting illumination levels for the HAHQ car park during office hours to a minimal acceptable standard • Target for a reduction rate as against that of 2002/2003 	A ceiling of 18,623,000 kWh consumption, or 4.5% reduction as against that of 19,500,520 kWh consumption in 2002/03 (which is in line with the service-wide targets set by the Policy Committee)		16,706,794 kWh, or 14.3% reduction as against that of 19,500,520 kWh consumption in 2002/03.
36 A	Enhance staff awareness and knowledge about general environmental issues and legislation	Organize seminar on general environmental issues / legislation and/or sponsor staff to attend external seminars/courses on the same subject	2 seminars		<ul style="list-style-type: none"> • The following seminars/courses were conducted to enhance staff awareness of environmental issues: <ul style="list-style-type: none"> - HD Environmental Seminar on LCA & LCC Studies & Solar Energy Application in HK; - Experience Sharing on Environmental Design Studies; - Environmental Protection Department (EPD) Workshop on Environmental Improvement Scheme to Facilitate Green Construction Practices; - Seminar on Introduction of Energy Efficient &

- Upload a self-learning module on the Environmental Legislative Database (ELD) under the e-Housing Portal

Environmental Friendly Products for HA;
 - Construction Industry Training Authority (CITA) Course on Preparation & Implementation of Environmental Management Plan; and
 - The Latest Regulatory Development on Environmental Management & ISO14001 in 2006.
 Modification of the ELD self-learning module was completed and uploaded to the e-Housing portal.

37	A Enhance staff awareness and knowledge about energy savings	Organize green housekeeping seminars for energy wardens	2 seminars	■	Two Green Housekeeping Seminars were organized for energy wardens in Apr and Jun05.
38	A Enhance staff awareness and knowledge about environmental issues	<ul style="list-style-type: none"> • Arrange displays at the Green Corner to promote environmental initiatives of various divisions • Organize promotional activities to mark the World Environment Day (WED) • Organize Waste Recycling Project and Energy Saving Projects for HD staff • Arrange HD staff to 	Programme to be completed in 2005/06	■	<ul style="list-style-type: none"> • Four displays at the Green Corner by respective divisions were put up through the year. <ul style="list-style-type: none"> - Corporate Services Department's (CSD) "In-house Environmental Performance"; - Development and Construction Division's (DCD) "Snapshots of Environmental Initiatives" ; - Estate Management Division's (EMD) "Green Property Management"; and - Environmental Management Unit's (EMU) "HA's Green Achievement: Today & Tomorrow" • An on-line quiz was organized to support WED in Jun05. 25 winning colleagues were awarded to an eco-tour visiting Hong Kong Mangroves and Fanling Environmental Resource Centre in Jul05. • Joint activities such as the

		participate in environmental activities organized by other departments and green groups			E&M Safety Carnival with EMSD in Oct05 to promote energy saving and efficiency; and the Green Carnival organized by Green Council in Feb05.	
39	A	Increase community awareness of environmental protection and in particular to promote greening in PRH	<ul style="list-style-type: none"> • Launch campaigns to promote waste reduction and recycling • Relay green messages in EMAC newsletter • Distribute publicity materials such as posters, leaflets and souvenirs to educate residential tenants on environmental issues • Encourage EMAC's participation in promoting environmental messages among PRH tenants • Arrange PRH tenants to participate in the Tree Planting Day 	Programme to be completed in 2005/06	■	<ul style="list-style-type: none"> • Activities jointly organized with green groups include: <ul style="list-style-type: none"> - Launching the "Green Delight in Estates" at Lok Fu Shopping Centre in Jul05; - "Estate Green Fun Day" in 17 PRH estates from Nov05 to Mar06; - Waste Collection Programme with SWD in 5 PRH estates; - A game booth to promote HA's green initiatives at the Green Carnival; - Waste Reduction Credit Scheme Phase IV was completed in Oct05. - 100 estate tenants from 3 estates joined the kick-off ceremony of the Hong Kong Tree Planting Day in Mar06.
40	A	Enhance staff awareness in central government's sustainable development policy and the use of Computer-aided Sustainability Evaluation Tool (CASET)	Organize seminar on sustainable development and how to conduct sustainability assessment	1 seminar	■	Seminar on sustainable development was organized jointly with the Sustainable Development Unit in Apr05, with coverage on the use of CASET.
41	A	Enhance staff awareness and knowledge in the elements of environmental management plan	Organize training seminars on the elements of environmental management plan	2 seminars	■	Two seminars were held in Aug05.

A Awareness and participation

H Water

G Greening

C Control of hazardous materials

N Noise

W Waste management & 4Rs(Reduce, Reuse, Recycle, Replace)

E Energy efficiency

■ Fully Met

■ Substantial Progress

■ Fall Short

- Note 1 Status of target met can be defined as one of the following - Fully met, Substantial progress, Fall short or Deferred.
- Note 2 Recovery rate respectively for Paper, Aluminum Cans and Plastic Bottles is the ratio of that particular waste collected from the recycling bins against the estimated total of that particular waste generated from the public estates, based on the EPD's Domestic Waste Composition Survey in 2003.
- Note 3 The trend for both paper and aluminum cans is decreasing due to the high resale value in the market.
- Note 4 The recovery rate for used clothes was slightly dropped due to recovery activities conducted by other organizations at the periphery outside the housing estates

Verification Statement



Verification Statement for Hong Kong Housing Authority Sustainability Report 2005 / 06

SCOPE AND OBJECTIVE

Hong Kong Quality Assurance Agency (HKQAA) has conducted an independent verification of the Hong Kong Housing Authority's (HA's) Sustainability Report for 2005 / 06 (herein referred to as 'the report'), this is the first sustainability report by the Authority. The report describes the environmental, social and economic performance of HA for the period 1 April 2005 to 31 March 2006 . The objective of the verification was to provide an independent opinion on the materiality, completeness, accuracy, reliability and transparency of the information presented in the report.

The verification scope included:

- Assess the adequacy of coverage of all relevant issues in relation to HA's sustainability performance
- Verify the reliability of data and information management mechanism for gathering, collating, analyzing, monitoring and presenting the sustainability data in the report
- Assess the accuracy and consistency of the selected statements and data presented in the report
- Assess the overall reasonableness and balance of performance presentation in the report
- Identify the relevant areas for future improvement

VERIFICATION METHODOLOGY

Our verification procedure included review of relevant documentation, interview with representatives from HA with accountability for preparing the report, analyze selected sample of statements and data.

Selected samples of the consolidated performance data presented in the report were checked and tested, some were verified through cross-checking with third-parties to confirm the accuracy

Organizational conditions, overall operations, data items collected for reporting and compilation method were understood and assessed

OUR OPINION

In our opinion, the information presented provides a structured, balanced and reasonably accurate representation of HA's sustainability performance in the context of environmental, social and economic aspects.

Report Completeness:

The report is a fair and honest representation of HA's policies, management systems and performance with respect to its core operations and the key sustainability issues. The report communicates extensively regarding HA's recent initiatives, targets, progress, performance and case studies on its environmental, social and economic achievements and the future advancement measures. The commitments, strategies and support of top management are in line with principles of sustainability and maintain HA as a sustainable organization. HKQAA observed that there is a clear commitment by HA's senior management to continuously improve sustainability performance across the organization. As these initiatives become increasingly embedded and integrated into business practices. The report now incorporates a more comprehensive set of sustainability indicators.

Report Accuracy and Reliability:

The written statements made in this report accurately and consistently reflect the results and progress achieved during the reporting period.

A handwritten signature in black ink, appearing to read 'Connie Sham', is displayed on a light green rectangular background.

Connie Sham
LEAD AUDITOR
HONG KONG QUALITY ASSURANCE AGENCY

Feedback

We thank everyone who provided feedback on our 2004/05 Environmental, Health and Safety Report: Sustainable Housing Today and Tomorrow.

Most of our readers found our 2004/05 Environmental, Health and Safety Report good, useful, very easy to understand and clear. The following topics were found to be most useful to our readers:

- Environmental Performance;
- Health, Safety and Social Performance Overview;
- Stakeholder Engagement; and,
- Case Studies.

We took all your comments and concerns into consideration during the preparation of this year's Sustainability Report. Here are the most common comments provided to us:

Feedback of our 2004/05 EHS Report

<i>Your Comments</i>	<i>Our Response</i>
Benchmark Housing Authority's performance targets with that of the same industry sector, international standards and best practices.	We have started to use the GRI guidelines, which is internationally-recognized and thus enhancing comparability of our performance indicators to other similar organizations and industry.
Include more case studies on Housing Authority's housing estates to provide a clearer picture of Housing Authority's services to the public.	We have included relevant case studies and discussions on Housing Authority's housing estates in the report as far as possible.
Increase picture size and graphical presentations for better viewing.	Visual presentation and design of our report have been improved.

Please use the Feedback Form ([Pdf version](#) or [MS-Word version](#)) to give us your valuable feedback on this year's report: Sustainable Housing: New Horizons.

Feedback Form

Thank you for reading our Sustainability Report 2005/06 – Sustainable Housing: New Horizons. Please take a moment to give us your valuable feedback and return to us via post or email before 30 September 2007.

- | | | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 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 |

- | | | | | | | | | | | |
|---|----------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | Major Aspects* | A | B | C | D | E | F | G | H | I |
| 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 _____

- | | | | | | | | | | |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 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"/> |
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Please specify _____

- | | | | | | | | | | |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 7. Which aspect(s) of the Report would you like 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 _____

- | | | | | | | | | | |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 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 _____

*A. About the Report / Highlights

*B. About the Housing Authority

*C. Governance Structure and Management

*D. Environmental Performance

*E. Social Performance

*F. Economic Performance

*G. Stakeholder Engagement

*H. Targets and Outlook / Previous Targets

*I. Verification Statement and Feedback

Feedback Form

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:

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