

Legislative Council Panel on Housing

Performance of Environmental Targets and Initiatives in 2011/12

Purpose

This paper aims to brief members on the performance of the Hong Kong Housing Authority (HA) in respect of its environmental targets and initiatives in 2011/12.

Background

2. In 1999, the HA established its Environmental Policy to promote healthy living and a green environment, so as to enhance the quality of living. In addition to complying with environmental legislation and regulations, the HA has developed a strategic framework and implemented environmental management strategies for the promotion of sustainable development on various fronts, including planning and construction of new public housing estates, the operation of existing estates and our office at work. With a view to addressing environmental concerns and minimizing environmental impacts, we have incorporated environmental initiatives and developed green procurement policies throughout our planning and design, construction and demolition, marketing and estate management activities.

Progress

3. To effectively manage the overall implementation of the Environmental Policy, we have established environmental targets and initiatives at the beginning of each fiscal year and the performance is reviewed quarterly. In 2011/12, we have set out 39 targets covering six environmental aspects, which include energy efficiency, water conservation, greening, waste management, control of hazardous materials as well as the enhancement of environmental awareness and participation. Details of our performance are listed at **Annex 1**. A summary of the environmental performance statistics for nine quantifiable targets as compared with the respective key performance indicators is at **Annex 2**.

4. In addition to the above in pursuing a green environment, we have started looking at developing food waste recycling in the public housing estates. At present, HA is conducting a trial scheme on food waste recycling in collaboration with the EPD. Under this scheme, food

waste composters have been installed at Tin Ching estate in Tin Shui Wai and Tsz Ching estate in Tsz Wan Shan to convert food waste into compost. In parallel, we have also collaborated with three green groups to conduct trial schemes on off-site food waste recycling in five public housing estates by transporting food waste to recycling plant outside the estates. We will continue to carry out review on these food waste initiatives.

Way Forward

5. We have set out challenging yet pragmatic targets to gauge our performance for 2012/13. We will continue our efforts to achieve various environmental, social and economic targets, with a view to maintaining a sustainable public housing programme for Hong Kong.

6. Members are invited to note the performance of the HA in respect of its environmental targets and initiatives in 2011/12.

**Transport and Housing Bureau
November 2012**

Our Environmental Performance

The HA have set 39 environmental targets for the fiscal year 2011/12 for the promotion of sustainable development on various fronts including planning and construction of new housing estates, the operation of existing estates and our office at work. The targets covered energy efficiency, water conservation, greening, waste management, control of hazardous materials, as well as the enhancement of environmental awareness and participation. Among the 39 environmental targets and initiatives, 38 of them were fully met, while the remaining target on the completion of replacing light fittings equipped with electromagnetic ballasts by electronic ballasts in all existing rental blocks will be deferred from 2014/15 to 2015/16 due to changes in the mode of contract procurement for the retrofitting work. Our environmental performance for 2011/12 is outlined below:

(A) Environmental Initiatives in Planning and Construction of New Housing Estates

Energy Efficiency

1. We obtained 70 energy certificates for the newly completed public domestic blocks.
2. We explored and studied the use of more energy efficient equipment by (i) reviewing the performance of the trial light-emitting diode (LED) lighting system at Lam Tin Phases 7 & 8, (ii) monitoring and reviewing the performance of the prototype of LED bulkheads at Tsz Ching Estate, and (iii) completing the environmental lighting controls using a 2-level lighting system at the communal areas of domestic blocks in 5 pilot projects.
3. We explored and studied the use of green design for building services equipment by (i) reviewing the performance of the first trial photovoltaic (PV) panel system at Lam Tin Phases 7 & 8, (ii) completing the second trial of PV Panel system at East Harbour Crossing Site Phase 5, (iii) installing one to two solar or solar/wind hybrid lights in all new estates for education purpose, and (iv) conducting carbon emission estimation for all projects with domestic blocks at the detailed design stage.

Water Conservation

4. We conducted research on materials and standards of water closet suites to reduce flushing water consumption.
5. We provided rain water harvesting system at Tung Tau Phase 9 and East Harbour Crossing Site Phase 5 to reduce irrigation water consumption.

Greening

6. All completed planting works surveyed up-to-date met the minimum of 1 tree per 15 public rental housing (PRH) flats target, and all new estates achieved an overall target of 30% green coverage, with a minimum of 20% at the planning brief stage.
7. We provided green treatment to all the newly formed slopes.
8. We engaged local residents and the community to participate in the Action Seedling programme for early plant raising in new housing estates.
9. We encouraged community involvement in the greening of new PRH by introducing communal planting areas in the master landscape layout plans of three new PRH in design stage.

Waste Management

10. We enhanced the use of green materials and components by stipulating requirements in all new building and civil engineering contracts to use pulverized fuel ash as partial cement replacement material in structural concrete with mass concrete pouring in all new building contracts, and to use recycled rock fill in earthworks and recycled subbase materials in road works.
11. We promulgated specification for using softwood timber from sustainable source for all cores of timber doors in new PRH projects.
12. We promulgated specification requiring contractors to use timber from sustainable source and no virgin forest products for temporary works during construction.

Control of Hazardous Materials

13. We implemented asbestos abatement programme under the estate redevelopment programme and asbestos removal works in 10 demolished building blocks, comprising 8 domestic blocks and 2 school blocks, to abate the remaining asbestos containing materials in HA managed properties.

Enhancement of Environmental Awareness and Participation

14. We enhanced the environmental performance of contractors on site by stipulating in all new building, demolition, piling and civil engineering contracts the requirements to: submit and implement environmental management plan, ban the use of incandescent light bulbs for temporary lighting, use generators with Quality Powered Mechanical Equipment labels, install water recycling facilities and restrict vehicle speed. We will also continue to stipulate requirements to adopt hard paved construction in all new building and piling contracts, and to use precast concrete components in all new building contracts.

(B) Environmental Initiatives in Existing Housing Estates

Energy Efficiency

15. We monitored and reviewed the performance of LED bulkhead light fittings in selected existing PRH blocks.

Water Conservation

16. We installed water saving devices (e.g. sensor-controlled tap, sensor-controlled urinal flush valve) in the toilets of 21 shopping centres.

Greening

17. We nurtured a green environment and promoted tenants' awareness and participation in greening by organizing tree planting days in 10 estates, developing community gardens in 10 estates and providing greening activities in 20 estates through the Estate Management Advisory Committees (EMACs).

18. We re-landscaped and upgraded the existing landscape facilities through the Landscape Improvement Programme in 18 estates and have set up thematic gardens at Choi Wan (I) Estate and Sha Kok Estate.
19. We improved the appearance of 10 slopes at 5 estates by providing planters for shrubs and creepers, as well as applying hydroseeding on chunam surfaces.

Waste Management

20. We promoted waste separation at source and green management initiatives by implementing the Source Separation of Domestic Waste Programme in all estates. We set up collection counters in all estates and encouraged local residents to collect domestic recyclables through incentive scheme.
21. We recovered about 23,850 tonnes paper for recycling in PRH estates.
22. We recovered about 1,050 tonnes aluminium cans for recycling in PRH estates.
23. We recovered about 1,580 tonnes plastic bottles for recycling in PRH estates.
24. We recovered about 945 tonnes used clothes for recycling in PRH estates.
25. We achieved the target of 0.7 kg/person/day of average domestic waste production from our residents in 2011/12 through the implementation of various waste recycling and recovery initiatives in PRH estates.

Control of Hazardous Materials

26. We maintained the remaining asbestos containing materials in existing PRH estates in satisfactory condition by conducting two condition surveys per year and engaging a registered asbestos contractor for emergency repair of underground asbestos cement water-mains for all estates.

Enhancement of Environmental Awareness and Participation

27. We collaborated with green groups to conduct the estate-wide environmental awareness campaign and education programme, namely the Green Delight in Estates programme in PRH.
28. We reviewed and monitored the environmental awareness of the PRH residents by post-programme surveys.
29. We continued to enhance community awareness on environmental protection by launching waste reduction and recycling campaigns in PRH estates and arranging joint programmes with green groups, non-governmental organizations and the EMACs.
30. We promoted tenants' awareness and participation in waste separation at source, waste reduction and green management initiatives through various publicity channels.

(C) Environmental Initiatives in Office at Work

Energy Efficiency

31. We consumed a total of 36,803,499 kWh of electricity in 2011/12, which was reduced by about 4.5% when compared with the total electricity usage of our offices in 2007/08.

Water Conservation

32. We consumed 12,683 cubic metres of water in the HA Headquarters, which had been decreased by 17.0% as compared with the consumption in 2007/08.

Greening

33. We promoted staff involvement in greening activities by arranging staff to participate in tree planting day.

Waste Management

34. We consumed 130,648 reams of paper representing a decrease of 3.1% as compared with the consumption in 2007/08.
35. We collected 30kg of waste paper per staff in 2011/12 in our offices, which is higher than the target of 18.8 kg per staff.
36. We have been using environment-friendly paper as a prerequisite requirement in the printing of all publicity materials (except sales and marketing publications).

Control of Hazardous Materials

37. We controlled hazardous materials by collecting all disposed mercury-containing lamps in HA Headquarters for special waste treatment.

Enhancement of Environmental Awareness and Participation

38. We followed up to the HA staff survey on environmental awareness and strengthened our training and publicity on environmental issues, including organising environmental quiz for all our staff.
39. We continued to enhance staff environmental awareness and knowledge by organizing seminars, displaying environmental issues at HA Headquarters and organizing environmental campaigns.

Trial Scheme on Food Waste Recycling

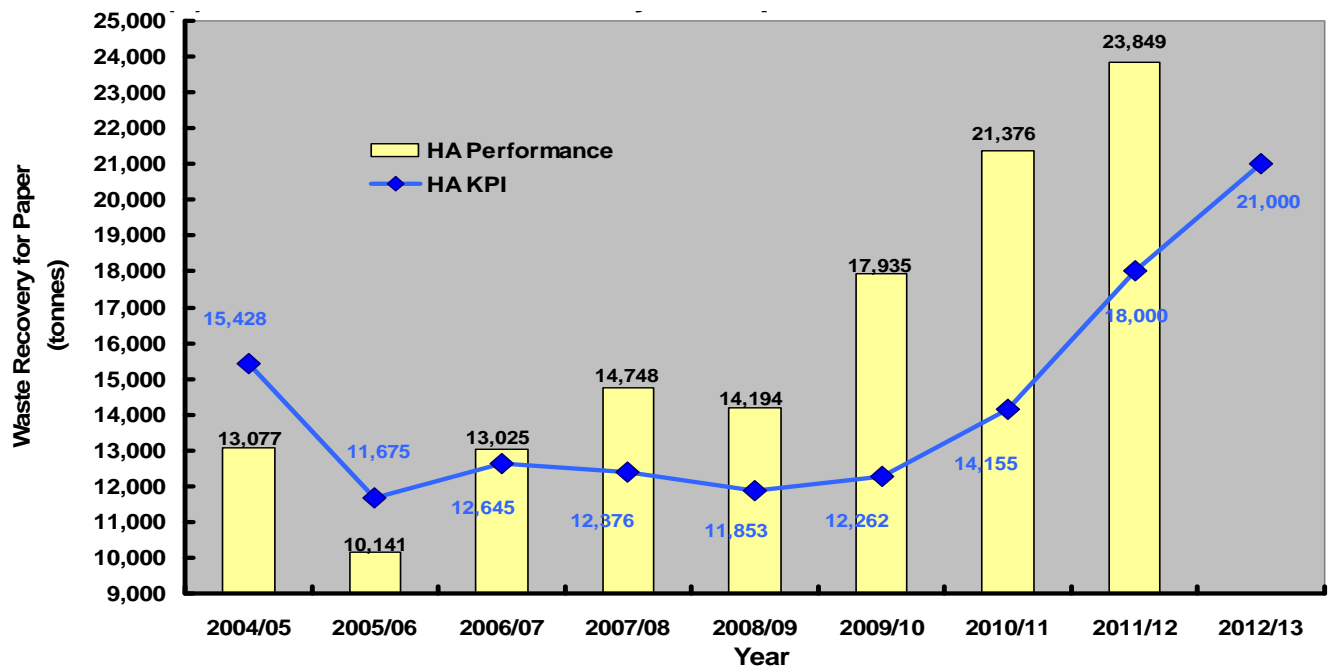
HA has conducted a 2-year trial scheme on food waste recycling in collaboration with Environmental Protection Department at Tin Ching and Tsz Ching estates since early 2012. Some 100 households have joined the scheme in both estates respectively. In addition, we have partnered with three green groups to conduct a trial scheme on off-site food waste recycling in five estates, namely Ching Ho, Lai Kok, Nam Shan, Tin Wah and Tin Tsz estates. The Scheme has commenced in November 2012, and some 100 households have participated in the scheme in each of the above estates.

Ends

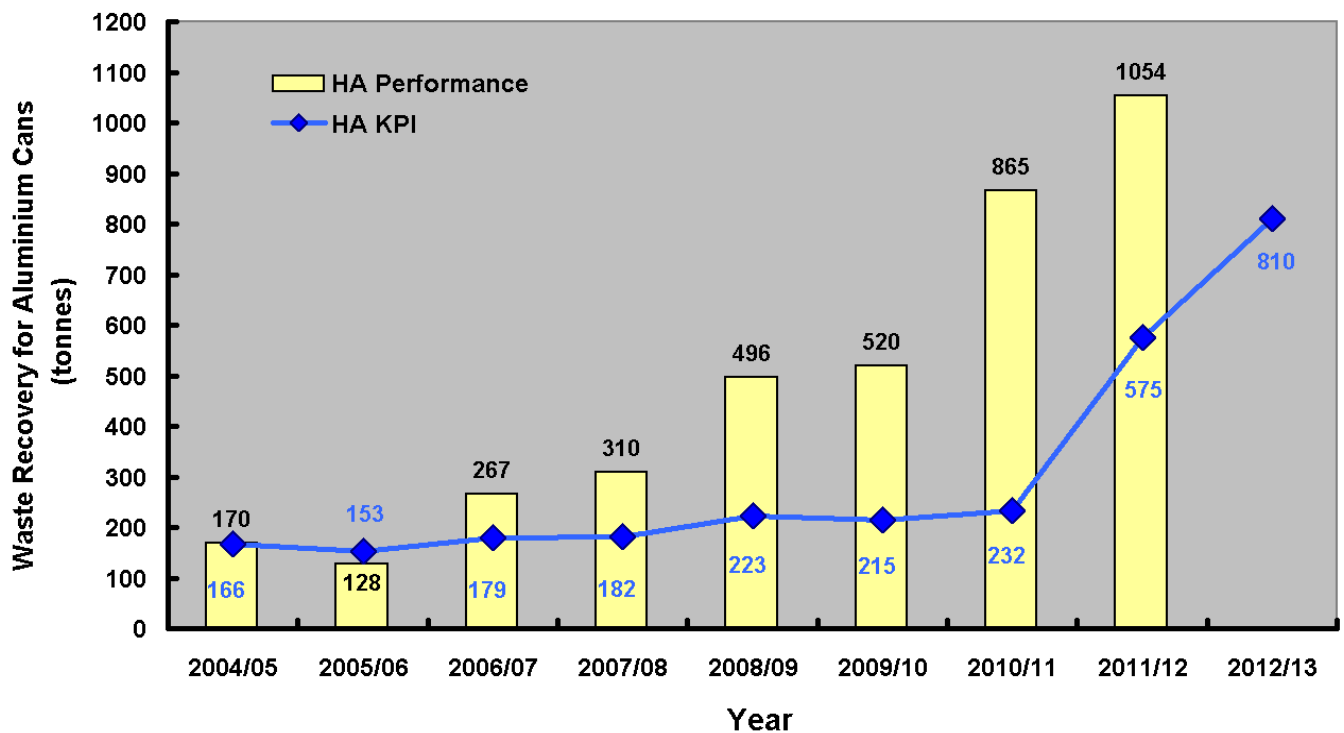
A Summary of Environmental Performance Statistics for Quantifiable Targets

A) Housing Estates

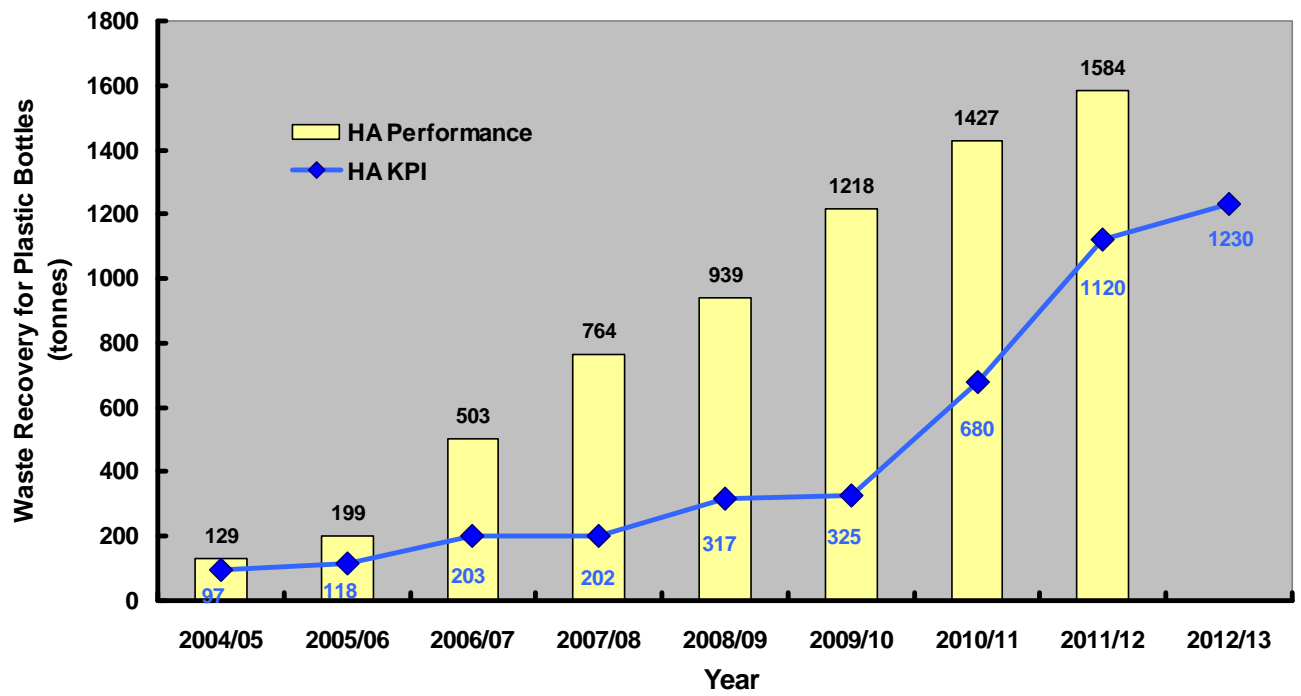
(1) Domestic Waste Recovery for Paper



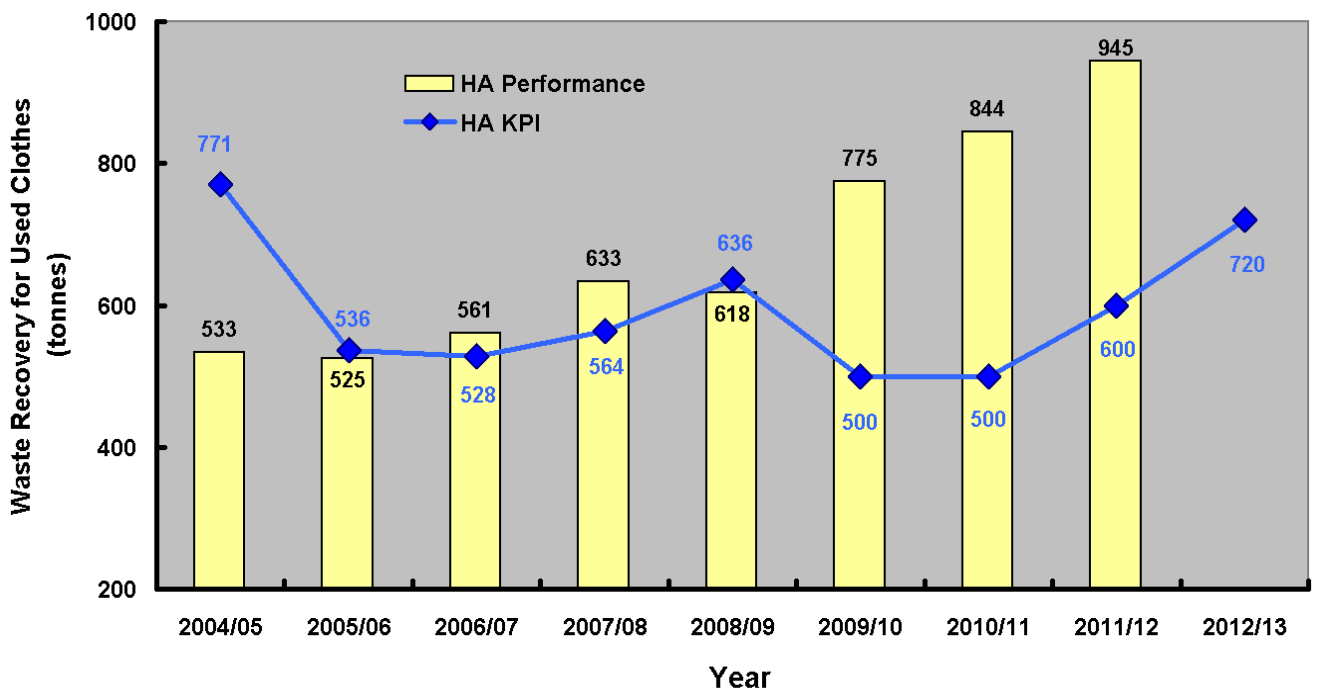
(2) Domestic Waste Recovery for Aluminium Cans



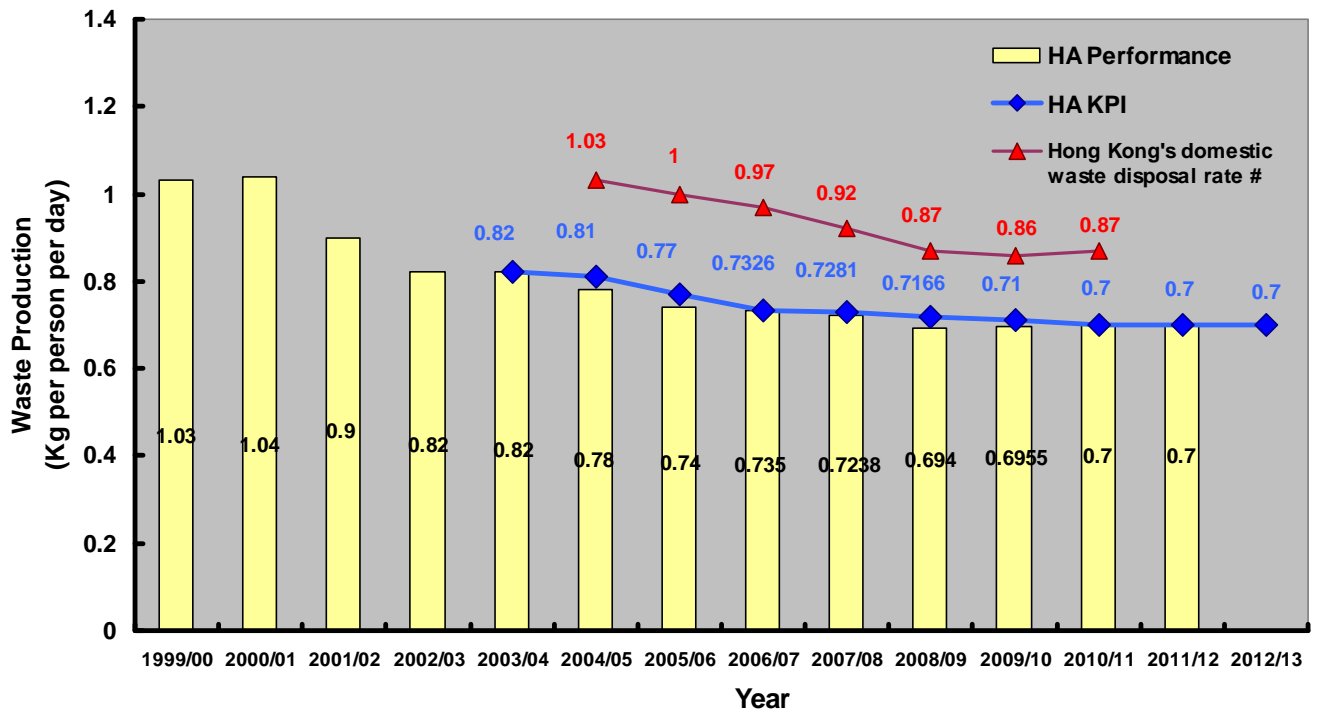
(3) Domestic Waste Recovery for Plastic Bottles



(4) Domestic Waste Recovery for Used Clothes



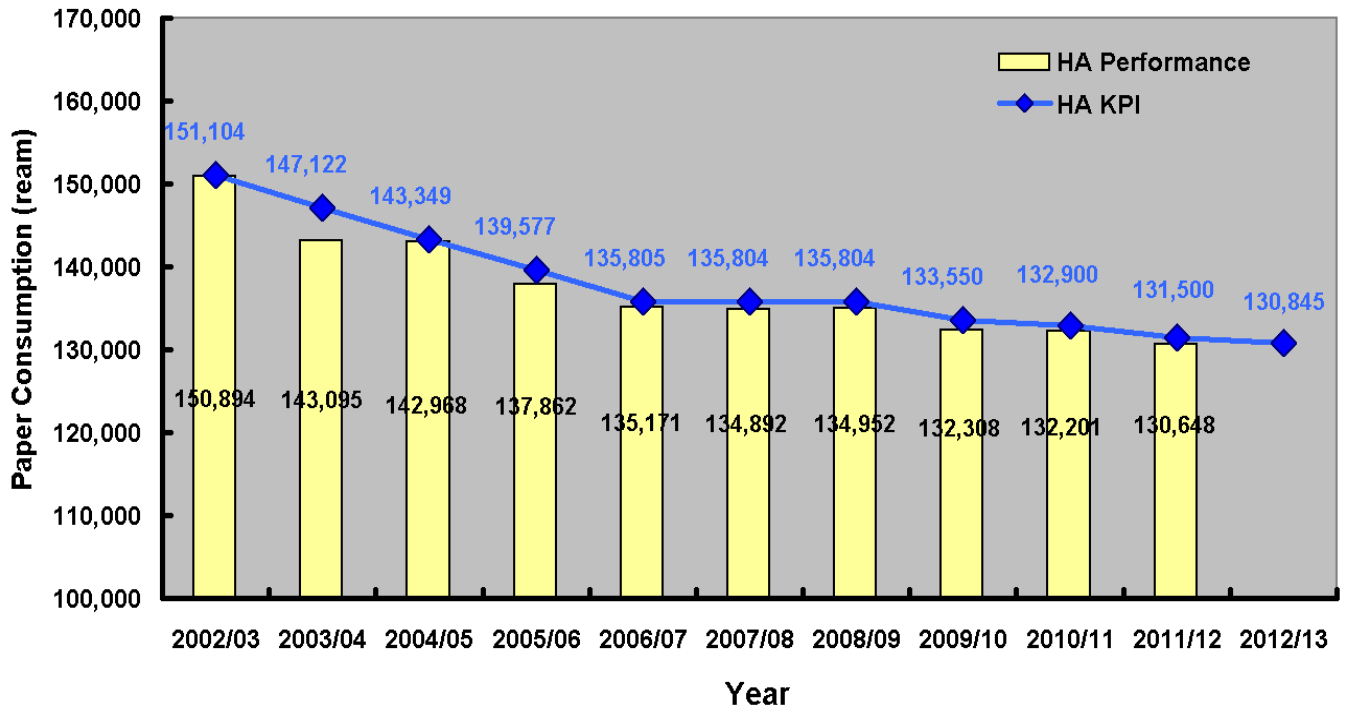
(5) Average Domestic Waste Production



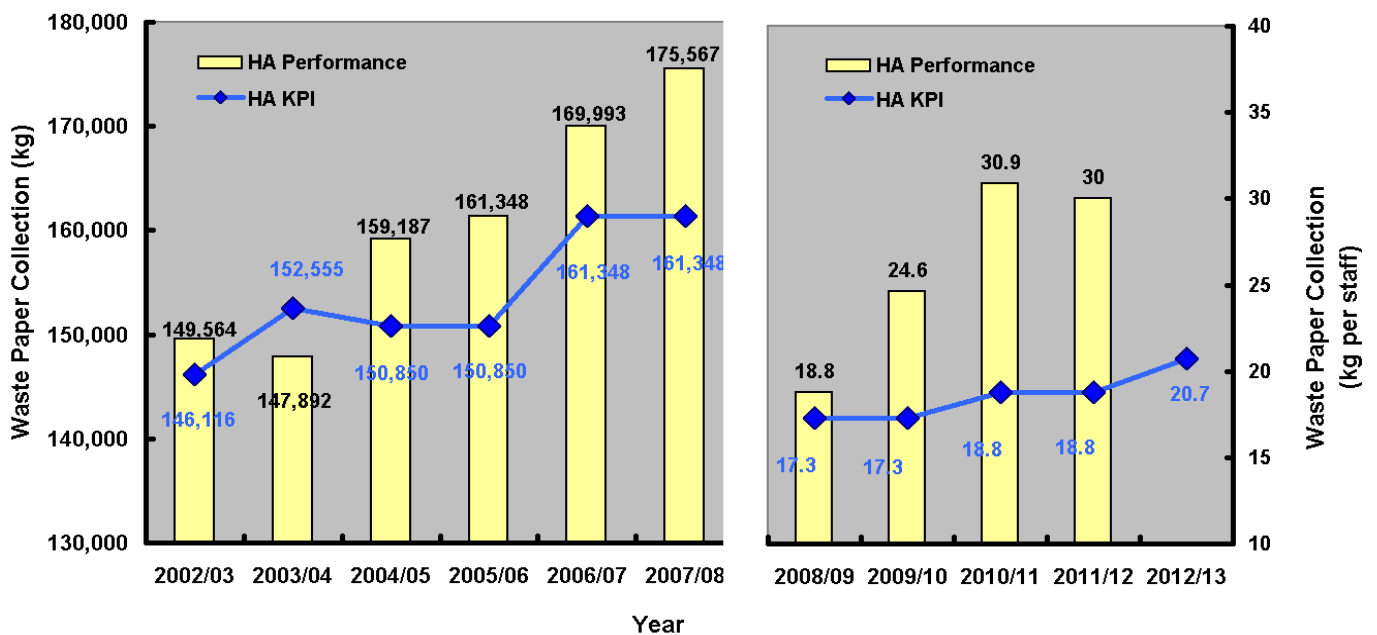
Source : Environmental Protection Department (2011). *Monitoring of solid waste in Hong Kong: Waste Statistic for 2010.*

B) Housing Authority Offices

(6) Paper Consumption in all HA Offices

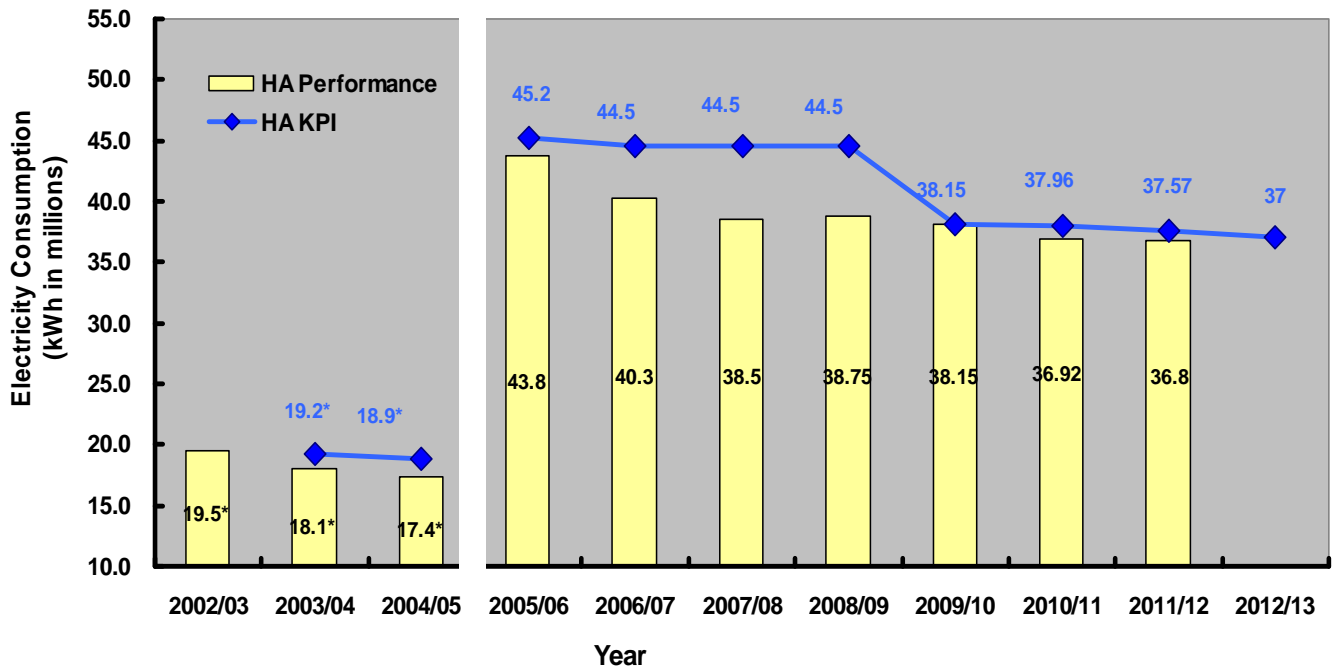


(7) Waste Paper Collection in all HA Offices



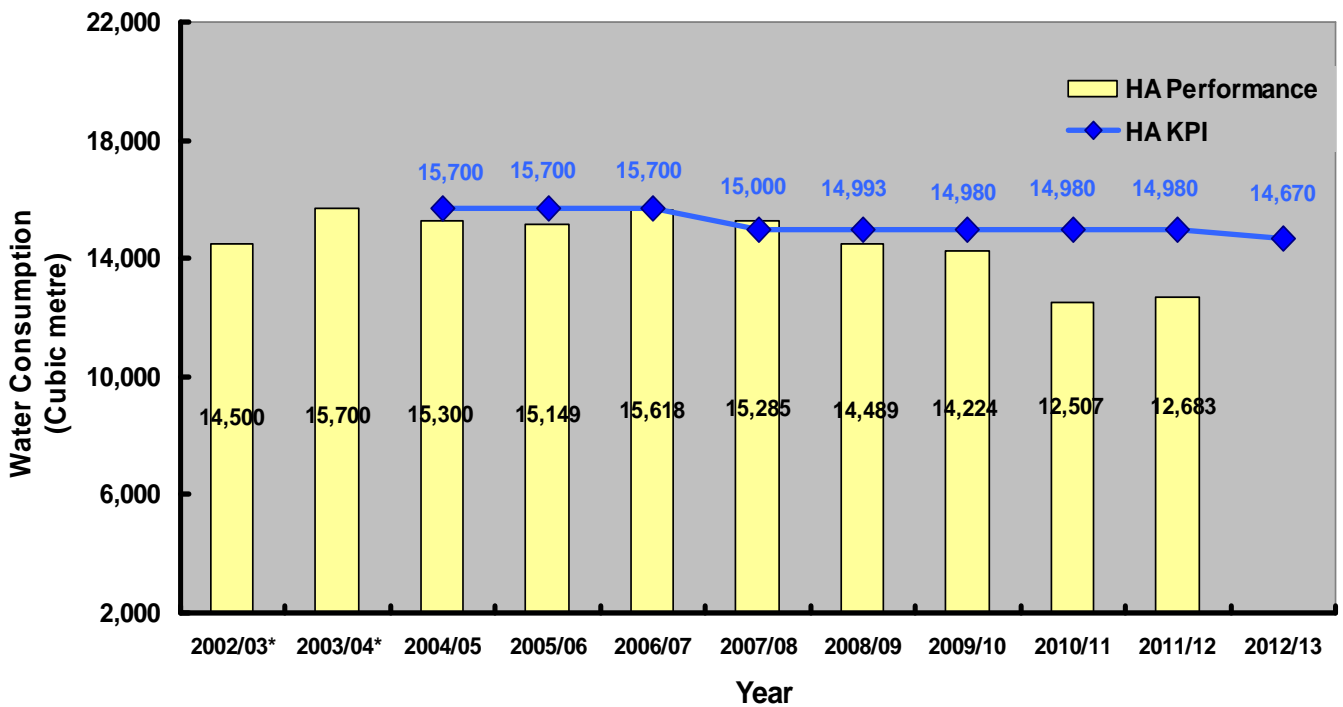
Note: Since 2008/09, waste paper collection is calculated by weight per staff instead of the overall weight

(8) Annual Electricity Consumption in all HA Offices



*The HA KPI & HA performance have not included the HA Offices outside HAHQs. The corresponding KPI has been set up since 2003/04.

(9) Water Consumption in HAHQ



(* No official target was set for water consumption in 2002/03 and 2003/04)