# Lands Department
# Environmental Report 2022

## Introduction

In this environmental report, we set out our environmental policy and performance in 2022.   Since the inception of annual environmental reporting twenty-three years ago, we have attached increasing importance to environmental protection and preservation.   We are committed to the development and promotion of a green culture in our daily work and among our staff.   We welcome any suggestions on how we may better achieve our environmental objectives.

## Key Responsibilities of the Department

The Lands Department (LandsD) is responsible for the administration of land throughout the territory.   The specific responsibilities of our three functional offices are as follows:

- ***Lands Administration Office***

  Disposal of land for development purposes including land grant, lease modification, land exchange and renewal of existing leases, acquisition of private land for public projects, valuation of land and property, land control and lease enforcement, maintenance of slopes on unleased and unallocated government land, ad hoc maintenance of vegetation on unleased and unallocated government land not managed by other specified government departments, and provision of expert advice on landscape and tree issues related to development control on private land and dangerous trees on private land.

- ***Survey and Mapping Office***

  Land and aerial survey, map production, maintenance of the positioning infrastructure, maintenance of the land information system for mapping data and land record information, provision of web map services, support for the implementation of the Common Spatial Data Infrastructure (CSDI), development of territory-wide three-dimensional (3D) digital map, enhancement of the Government Building Information Modelling (BIM) Data Repository, and administration of the Land Survey Ordinance (Cap. 473).

- ***Legal Advisory and Conveyancing Office***

  Provision of legal advisory and conveyancing services primarily to the Department, giving consent to the pre-sale of uncompleted units and approval of deeds of mutual covenant.


**Environmental Policy**

In carrying out our land administration functions, we support environmental protection and improvement by:

- formulating and implementing departmental policies and practices in line with the Government's environmental objectives;

- joining hands with other government departments to improve the environment of Hong Kong;

- developing a culture of environmental protection and awareness among staff members; and

- employing best practices in green housekeeping including adoption of energy-efficient measures in daily operations and publication of information on energy and fuel use.


**Land Disposal**

We will make available land or enter into land transactions with leaseholders of existing private properties for development purposes.    Through the incorporation of appropriate lease conditions in land grants, land exchanges and lease modifications, and engineering conditions in the allocation of government land to government departments, we also provide, where appropriate, a vehicle whereby the Government may exercise control over environmental issues, or implement its environmental initiatives which are related to land but are outside the purview of the existing statutory framework.    Some examples are as follows:

- ***Sites for Waste Recycling and Waste Management***

  We work with the Environmental Protection Department to identify suitable sites for the waste recycling industry.    As at the end of 2022, we were managing a total of 40 short term tenancies for waste recycling.

- ***Control on Contamination of Land***

  Where there may be potential risk of contamination arising from various specific land uses such as petrol filling stations, we incorporate relevant environmental protection requirements in land leases. This measure has been extended to cover sites let by short term tenancies or being held under government land allocations by other departments.

- ***Optimising Development Density***

  For sites included in the 2023-24 Land Sale Programme, air ventilation assessment has been or will be conducted where required. Such assessment facilitates the incorporation of specific development parameters or restrictions in the Conditions of Sale for the sites concerned, as appropriate.

- ***Fostering a Quality and Sustainable Built Environment***

  The Government announced detailed measures in October 2010 to enhance the design standard of new buildings for fostering a quality and sustainable built environment in Hong Kong. The Buildings Department promulgated in January 2011 the practice notes to implement the measures with effect from 1 April 2011. Appropriate requirements on sustainable building design are also incorporated in the lease conditions. Moreover, lot owners are obliged under a landscape clause to landscape and to plant trees and shrubs on any parts of the lot not built upon and thereafter to maintain the same satisfactorily. Practice Note No. 1/2020A setting out further streamlined approval process, time frame and other facilitation measures was issued in May 2022 to aid the handling of relevant submissions.

- ***Tree Preservation***

  We continue to play a key role in tree preservation, mainly through drafting of lease conditions and approval of development and landscaping plans. All applications for tree works in private developments and public projects are carefully examined, with due consideration given to preservation, transplanting and compensatory planting. Practice Note No. 2/2020A setting out additional facilitation measures was issued in April 2022 to aid the handling of relevant submissions.

  We conduct pre-land sale tree surveys, where required, so as to identify trees of particular value within the sale site.

- ***Electronic Submission of Building Plan***

The Buildings Department is spearheading the development of the Electronic Submission Hub (ESH) into a digital centralised portal for receiving and processing building plans and applications, as an alternative to the present paper-based system. The ESH will be implemented in three stages. Stage 1 of the ESH was launched on 30 June 2022 to accept structural plan submissions for above-ground building works not requiring cross-departmental referral. We will continue to liaise with the Buildings Department regarding the Stages 2 and 3 development of the ESH to facilitate the handling of building plan submissions.

**Land Management**

Our target is to maintain and where appropriate to improve the environmental conditions of all unallocated government land and private land through effective land control and lease enforcement measures. Some specific tasks carried out in 2022 are set out below:

- We posted 53 542 government land notices under the Land (Miscellaneous Provisions) Ordinance (Cap. 28), requiring the clearance of unauthorised dumping or the cessation of government land occupation. We issued another 1 699 warning letters to private land owners in respect of nuisances, erection of structures or conversion of uses not permissible under the leases.

- Our District Lands Offices joined hands with other government departments in providing off-street bicycle parking spaces to encourage the use of this environmentally-friendly mode of transport.

- In addition to cutting grass on a regular basis at 1 309 sites on government land, as part of the Government's effort in the anti-mosquito campaign, we removed rubbish and waste and drained stagnant water on another 2 126 sites, some of which were illegal cultivation blackspots and fly-tipped sites.

- We also broadcast messages on both television and radio to appeal to the general public not to build, buy, rent or occupy any unauthorised structures on private agricultural land or government land. Such activities could lead to serious consequences.

- To contain the proliferation of placing skips for collection of renovation debris in public streets, we conducted 699 inspections and one clearance operation.

- We enhanced the appearance of 81 man-made slopes by planting vegetation or applying landscape treatments, such as stone facing during improvement works under our preventive maintenance programme.

- Two versions of roadside banners were displayed at designated spots in the territory to advise against the unlawful occupation of government land or the erection of unauthorised structures on private agricultural land.

## Acquisition

To facilitate early implementation of sewerage improvement works in the New Territories, we acquired private land under the relevant ordinance. In 2022, we acquired 4 756 m$^2$ of private land and also made available 38 155 m$^2$ of government land in Sai Kung and on Lantau Island for carrying out local sewage works.

## Survey and Mapping

- ### *ISO 14001 Environmental Management System*

  Since 2007, our Survey and Mapping Office (SMO) has been operating an Environmental Management System (EMS) under which environmental considerations are taken into account in project planning and execution, office administration, and every stage of the survey and mapping process. Our performance in these areas is regularly audited. Both the internal environmental audit conducted in May to June 2022 and the external audit conducted by a certification body in September 2022 confirmed our full compliance with the 2015 version (i.e. the latest one) of ISO 14001 on EMSs.

- ### *Open Data*

  To promote the use of digital maps and digital spatial data and to follow the Government's open data policy, we have been publishing Annual Spatial Data Plans on our website (https://www.landsd.gov.hk/en/resources/annual-data-plan.html) since 2021, as part of an effort to foster the integration, exchange and sharing of geospatial data in Hong Kong. As at the end of 2022, a total of 79 spatial datasets have been released on the CSDI Portal (https://portal.csdi.gov.hk/). We have also made available most of our digital map products and various spatial data for commercial and non-commercial uses free of charge. These open digital maps and data are available for download from the

Hong Kong Map Service 2.0 (https://www.hkmapservice.gov.hk), LandsD's website (https://www.landsd.gov.hk/en/spatial-data/open-data.html), the public sector information portal (https://www.data.gov.hk) and the CSDI Portal.

Open spatial data and open digital maps promote and facilitate paperless applications and thus reduce the use of environmentally-unfriendly storage media such as CDs and DVDs. Moreover, we are identifying more data and digital map products that can be made available to the public. The ever-increasing use of digital maps and spatial data will further reduce paper consumption.

- ***Hong Kong Map Service 2.0 (HKMS 2.0)***

  In addition to allowing users to order digital and paper map products of SMO, the HKMS 2.0 now also supports applications for copyright licences to reproduce maps/photographs in both digital and paper formats after a service upgrade, obviating the need for paper-based applications and enhancing the user experience. Since the launch of "Application for Copyright Licence" in 2019, a total of 547 applications have been processed online through the HKMS 2.0.

- ***Geospatial Information Hub (GIH)***

  The GIH is a web-based information platform for searching, displaying and sharing a vast amount of geospatial data through the government intranet. Various types of geospatial data from different government departments, including digital maps, aerial photographs, information about heritage sites and other land records, can be conveniently viewed on the computer, hence reducing the need for paper maps.

  On IT infrastructure, we have, since mid-2013, been progressively adopting virtualisation technology which enables us to use a single computer server to operate multiple applications and map services. In 2022, new energy-efficient servers were deployed. These servers continuously integrate existing applications and services, resulting in further conservation of computing resources and hence greater savings in electricity consumption.

- ***GeoInfo Map and MyMapHK***

  Launched in May 2010, GeoInfo Map is an online map service that allows the public to access up-to-date digital maps of Hong Kong as well as over 380 types of geospatial information about the public facilities and services provided by 38 government departments. It also offers location

search and features useful map tools which enhance users' map viewing experience on the digital platform.

In addition to its availability on iOS and Android platforms, the mobile map application MyMapHK has also been made available for Huawei devices. Expanding the user base of this mobile map service helps to further reduce the need for paper maps.

Both GeoInfo Map and MyMapHK promote the use of digital maps for reducing paper consumption. Likewise, other government departments can make use of these common platforms to deliver their geospatial information. Therefore, the efforts required for establishing, operating and managing their own platforms to disseminate geospatial information can be greatly reduced, which helps to lower costs and save energy within the Government.

- ***Common Spatial Data Infrastructure (CSDI) Portal***

  The CSDI is established to provide government departments as well as public and private organisations with an information infrastructure for sharing spatial data to support the development of Hong Kong as a smart city.

  In late 2018, we launched the alpha version of the present-day CSDI Portal, i.e. the Hong Kong GeoData Store, which allowed the public and developers to use geospatial data, map-related services and Application Programming Interfaces (APIs) for multiple applications. In the past few years, the Hong Kong GeoData Store helped to save users' efforts at processing, publishing and managing spatial data and services, which in turn reduced the overall consumption of electricity.

  With the experience from the Hong Kong GeoData Store, we assisted in the development of the CSDI Portal which is intended as a one-stop portal for data owners to share their spatial data with the general public. The CSDI Portal was available for all government departments in May 2022 and then for the general public in December 2022. Through effective sharing of spatial data on the CSDI Portal, we aim to minimise the possible duplication of efforts among government departments and public organisations at maintaining and processing data, thereby supporting decision-making and enhancing the efficiency of work for smart applications and sustainable development.

- ***Land Information System Portal (LIS Portal)***

  The LIS Portal was launched in 2018 for our staff to search for and retrieve registered land documents on the departmental intranet. Through the LIS Portal or its linked map view of the Geographical Information Retrieval System 2 (GIRS2), users can perform locational and textual searches to retrieve registered land documents associated with lots. The portal allows access to digital copies of registered land documents, thereby reducing the need for printing or copying the documents in our daily operation. We will keep reviewing the availability of different types of land documents in our continuing effort to enrich the document library.

- ***Map Application Programming Interface (Map API)***

  The Map API was launched for use by government bureaux and departments in 2018 and by the general public in 2020 to support and facilitate users' development of their own map applications. Map APIs reduce the time and effort required for system developers to build and maintain their map-related products. System developers can now easily integrate spatial data from LandsD with their applications by using Map APIs without recourse to ordering and processing raw spatial data from LandsD.

- ***Online Geodetic Survey Information***

  The Online Geodetic Survey Information service is open for public use since 2006. Users can browse, search for and download horizontal and vertical survey control data and other reference documents related to geodetic surveys from LandsD's website, GeoInfo Map and MyMapHK free of charge. Moreover, users can also gain access to the Geodetic Survey Control Station Database via the CSDI Portal and DATA.GOV.HK. These functions have greatly reduced the need for geodetic information in hard copies and have enhanced the effectiveness and efficiency of service delivery.

- ***Electronic Map Publication***

  The "*eHongKongGuide*", an electronic map publication produced by LandsD, has been available for free download from LandsD's website since 2017. The "*eHongKongGuide*" not only provides detailed maps covering the territory of Hong Kong, but also carries comprehensive information on geographic features and community facilities in digital form. The launch of the "*eHongKongGuide*" helps to reduce the print run of the *Hong Kong Guide*, which has decreased by 26% as compared with

2017.

**Green Housekeeping**

We are committed to the promotion of a green culture in the workplace.   We have established house rules on green office management for staff to follow.

- *Environmental Management and Auditing*

  The Departmental Secretary is our Green Manager who coordinates and reviews our green housekeeping initiatives.   Green Executives have also been appointed in individual sections/groups of offices to coordinate and monitor green housekeeping measures and to encourage staff participation in green housekeeping in their offices.   In addition, an Energy Warden is appointed in each office to ensure strict implementation of energy saving measures.

  The Green Executives are also tasked with conducting quarterly reviews and audits of green management practices in their offices, focusing on aspects such as paper and energy saving.   They also ensure the adoption of other green management practices (e.g. air conditioning units, lighting and other electrical equipment are switched off when not required/not in use).

- *Experience Sharing and Training*

  To maintain the momentum of environmental protection, we continued to nominate our Green Executives/Energy Wardens or their assistants to attend workshops on energy efficiency and green management organised by the Electrical and Mechanical Services Department in 2022.   We will identify more training opportunities to promote staff awareness of the importance of environmental protection.

  For experience sharing, we have created the "Green Corner" webpage on the departmental intranet to promulgate our green housekeeping policies, green tips, best practices and other useful information.   All new staff are informed of our green measures and initiatives via the welcoming email message when they join the department.

- *Energy Conservation and Consumption*

  According to the 2019 Policy Address, the Government endeavours to achieve a "Green Energy Target" of 6% saving on energy consumption in government buildings and infrastructure facilities from Financial Year

(FY) 2020-21 to FY 2024-25 under comparable operating conditions, using FY 2018-19 as the baseline.   The total electricity consumption of our venues/facilities installed with separate electricity meters in FY 2018-19 and FY 2022-23 is tabulated below:

| | Energy consumption before normalisation (billed & renewable energy) | Energy consumption after normalisation under comparable operating conditions | Renewable energy generation |
|---|---|---|---|
| FY 2018-19 (baseline) (million kWh) | 1 671 711 | 1 660 324 (a) | 0 |
| FY 2022-23 (million kWh) | 2 205 295 | 1 607 712 | 0 |
| Net change (million kWh) | +533 584 | -52 612 | 0 |
| Change compared with (a) (%) | | +3.2% (b) (+value for saving) | 0% (c) |
| Energy Performance (b)+(c) (%) | | +3.2% (+value for performance improvement) | |

Note: Activities of the Department evolve over time in meeting service demands, which lead to changes in operating conditions and significant impact on energy consumption in areas such as operating hours, usage rate, quantity of equipment and the floor area of venues.   Such changes also bring about significant impact on energy consumption. Adjustments (or normalisation processes) are therefore made to calculate the energy consumption under comparable baseline operating conditions. Under comparable operating conditions in FY 2018-19, the saving on electricity consumption of similar venues/facilities in FY 2022-23 was 3.2% after the implementation of some housekeeping measures.   For example, simple and cost-free measures have been introduced to improve the energy performance of air conditioning units, lighting and energy consuming equipment.   Green tips on energy saving have been promulgated for compliance by staff.   We also continue to implement established measures such as setting the air conditioning temperature at 25.5°C.

- ***Fuel Consumption***

  The major user of fuel is our vehicle fleet.   We have instructed our Motor Drivers to strictly comply with the requirements set out in the Motor Vehicle Idling (Fixed Penalty) Ordinance (Cap. 611), which took effect on 15 December 2011.   Switching off vehicle engines whilst waiting helps to reduce exhaust emission and fuel consumption.

  The total fuel consumption of our vehicle fleet was 229 524 litres in 2022, representing a decrease of 13.6% as compared with the consumption in the previous year.   The decrease in fuel consumption was attributable to the delivery of some new vehicles with environmentally-friendly designs in 2022 and less usage of vehicles during the period of "special work arrangements for government departments" to reduce the risk of the spread of COVID-19 in the community.

- ***Paper and Envelope Consumption***

  Departmental information such as circulars and notices is mainly disseminated to staff through emails and the intranet.   Tablet PCs and notebooks are increasingly used at designated internal meetings with a view to reducing paper consumption.   Our environmental performance in terms of paper and envelope consumption since 2018 is shown in Figure 1 and Figure 2 respectively.   When compared with 2021, an increase of 1.9% in paper consumption and a decrease of 1.8% in envelope consumption were recorded respectively.   The main reason for increased paper consumption is a rise in departmental activities in 2022.

- ***Paperless Meeting***

  We have introduced the use of notebook computers for most professional staff and set up wireless local area networks in meeting rooms at the headquarters to facilitate the practice of paperless meetings.   With secure wireless network connection, meeting participants can retrieve and share documents by using their notebook computers without printing them out.   It helps to reduce paper consumption in printing meeting documents, which are usually in multiple copies and for one-off use.

- ***Waste Recycling***

  In 2022, we collected about 30 356 kg of waste paper, 5 612 used toner cartridges and 263 kg of plastic waste for recycling.   Our performance in these areas in the past five years is reflected in Figures 3 to 5

respectively.    The overall trend is encouraging as staff are more attuned to the practice of recycling.

- ***Digital Form and Web Form for Public Services***

  We have converted all public forms into digital format and made them available on LandsD's website (https://www.landsd.gov.hk/en/resources/public-forms.html).    Instead of making pre-printed blank forms available at public counters, the forms are now printed on request only. In addition, we have started to create web forms for providing public services online to further reduce the need for printing.

## Availability of this Report

This Report can be viewed on LandsD's website (http://www.landsd.gov.hk).

## Contact Us

You are welcome to give us suggestions and views on this Report by emailing us at landsd@landsd.gov.hk or calling our enquiry hotline on 2231 3294.

# Statistics on Green Performance up to 2022
## for Inclusion in the 2022 Controlling Officer's Environmental Report
### (To be Presented in Chart)

| Caption of graph/chart | 2018 | 2019 | 2020 | 2021 | 2022 | To be presented in chart |
|---|---|---|---|---|---|---|
| **Green housekeeping measures** | | | | | | |
| Paper consumption (in ream) | 47 277 | 47 817 | 40 759 | 45 659 | 46 532 | Figure 1 |
| No. of envelopes consumed | 250 103 | 248 573 | 211 870 | 242 732 | 238 312 | Figure 2 |
| Quantity of waste paper collected for recycling (in kg) | 40 041 | 38 549 | 28 938 | 30 252 | 30 356 | Figure 3 |
| No. of used printer toner cartridges collected for recycling | 7 098 | 5 869 | 6 045 | 6 095 | 5 612 | Figure 4 |
| Quantity of plastic waste collected for recycling (in kg) | 371 | 343 | 208 | 238 | 263 | Figure 5 |