

INNOVATE WITH
SCIENCE

SERVE WITH
HEART



Sustainability Report

For Fiscal Year 2022/23



Hong Kong Observatory
The Government of the Hong Kong
Special Administrative Region



Director's Message

As we bid farewell to the fiscal year 2022/23, I wish to express my heartfelt appreciation for the unwavering dedication and professionalism demonstrated by our colleagues throughout this period. Despite the various challenges we confronted, including the significant impact of climate change, their invaluable contribution has played a pivotal role in building a sustainable business and ensuring our ability to thrive in these demanding times.

Throughout the year, the Observatory continued to deliver exceptional work, encompassing services in weather, time, geophysics, and other fields, to the public and all sectors of the society. Apart from maintaining a high level of accuracy in our existing forecast service, we introduced new services that provide seasonal forecasts for average temperature and total rainfall during specific periods. We also launched a new version of "My Observatory" with a more personalised design, resulting in over 161 billion page views in 2022.

As to the tremendous enthusiasm of the general public, we have physically resumed the Open Day besides the online version in November 2022 and March 2023, with a focus on the work of the Observatory and the theme of climate change. Alongside this, we developed new educational materials, including updating the theme page and producing new videos, to effectively communicate these important messages to the general public.

2023 marks the 140th anniversary of the establishment of the Observatory. A series of activities has been planned to celebrate this milestone. Among them, a book titled "Stories under Passing Storms" is published to commemorate the anniversary. The book features articles written by our partners and colleagues, recollecting the wonderful past together through sharing their real-life stories and experiences in the Observatory.

Having received the Merits award under the Hong Kong Awards for Environmental Excellence (HKAEE) for over 10 years and earning the title of "Hong Kong Green Organisation" in 2022, the Observatory's efforts towards sustainability is well acknowledged. We will continue to make dedicated efforts in promoting sustainability in the coming years, as it aligns with our core vision of building a better society through scientific innovation and dedicated services.

The Observatory values ideas and feedback from the public, and we are grateful for your ongoing support, which provides us with a strong impetus to enhance our services to an even higher level. Your views are most welcome to help us identify areas for further improvement.



Dr. Chan Pak Wai
Director of
the Hong Kong Observatory



Dr. Chan Pak Wai

The frequency of extreme weather events has increased due to the impact of climate change. It is crucial for us to embrace a greener lifestyle together in order to mitigate the impact of global warming.

2022 Key Figures

Department Overview

- 4** | Manned Offices
- 195** | Weather Stations
- 372** | Approved Establishment as at 31 March 2023

Green Achievement



Electricity Consumption compared to FY18/19

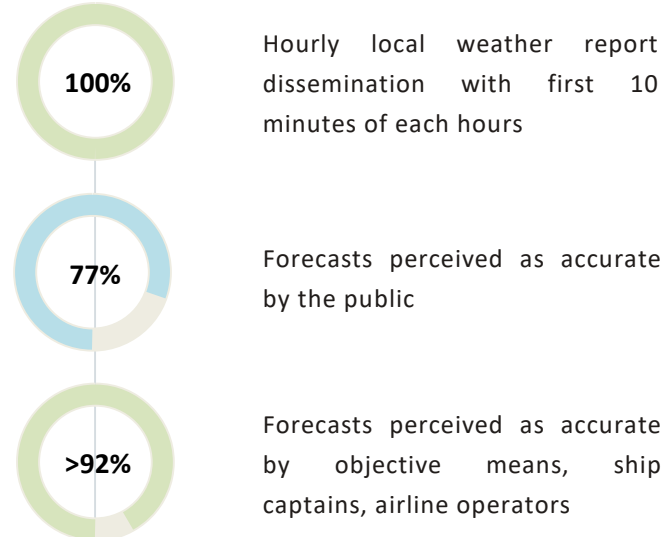


Paper Consumption compared to FY19/20

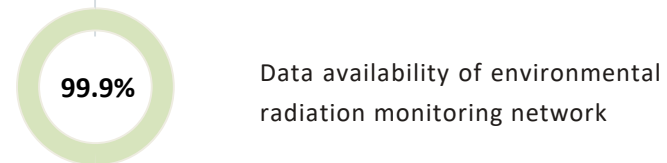
International and Regional Cooperation

> 20 | Partners, including the World Meteorological Organization, International Civil Aviation Organization

Weather Service



Radiation Monitoring and Assessment



Time Standard



Media

View of website and application **> 161** billions

CONTENTS

Director's Message	01
Key Figures	03
About the Department	05
About the Report	11
Sustainability	12
Staff Development and Engagement	21
Highlights of the Year	29



About the Department

The Hong Kong Observatory (the Observatory), established in 1883, is one of the departments under EEB of the government of HKSAR. The Observatory is responsible for monitoring and forecasting weather, as well as issuing warnings on weather-related hazards.

The Observatory also monitors and assesses radiation levels in Hong Kong, and provides other climate and geophysical services to meet the needs of the public and shipping, aviation, industrial and engineering sectors. With governance at international standard, the Observatory is one of the leading meteorological organisations in the world.

The Observatory operates four manned offices, namely the Hong Kong Observatory Headquarters, Miramar Tower Office, King's Park Meteorological Station, and Airport Meteorological Office, to meet the service requirements.

The Observatory consists of four branches, including Forecasting and Warning Services, Aviation Weather Services, Radiation Monitoring and Assessment and Development, Research and Administration. Under these branches, there are 23 divisions. As at 31 March 2023, we have an approved establishment of 372.

The branches and their subordinate divisions:



Forecasting and Warning Services

- Forecast Operation
- Service Delivery
- Forecast Development
- Forecast Systems



Radiation Monitoring and Assessment

- Environmental Radiation Monitoring and Meteorological Measurements
- Training and Exercises
- Weather and Radiation Observation
- Networks Emergency Preparedness and Assessment
- Information Technology Management



Aviation Weather Services

- Aviation Meteorological Innovative Solutions
- Aviation Meteorological Data Analytics
- Aviation Weather Forecast and Warning
- Services Radar and Satellite Meteorology
- Three Runway System Project
- International Aviation Meteorological Collaboration
- Aviation Meteorological Impact Assessment



Development, Research and Administration

- Climate Information Services and Tropical Cyclone Studies
- Geophysics, Time and Marine Meteorological Services
- Climate Forecast Services and Climate Change Studies
- Corporate Communication, Publicity and Media Services
- Annex Block Project
- Quality Management and International Cooperation
- Administration Services

An aerial photograph of the Tate's Cairn weather radar station. The central feature is a large, white, geodesic dome structure. To its right is a multi-level building with various rooftop equipment, including air conditioning units and a flat circular area. The station is situated on a lush green hillside. In the background, a dense urban landscape of Hong Kong is visible, with numerous high-rise buildings and a harbor area. The sky is clear and blue.

The current Tate's Cairn weather radar is the first dual polarisation S-band Doppler weather radar in Hong Kong.

Outstations

The Observatory operates five radar stations at Tai Mo Shan, Tate's Cairn, Brothers Point, Tai Lam Chung, and Siu Ho Wan. In addition, a total of 195 weather stations, including automatic weather stations, rain gauges, anemometers, and tide stations, are currently in operation.

Each radar station and weather station is strategically positioned across the territory, ensuring comprehensive coverage across different regions.



Vision, Mission and Values

The Observatory embrace these core values as our objective.

Vision

Be a model of excellence in protecting lives and building together a better society through science.

Mission

To provide people-oriented quality services in meteorology and related fields, and to enhance the society's capability in natural disaster prevention and response, through science, innovation and partnership.

Quality Management

In pursuit of quality management as advocated by the World Meteorological Organization (WMO), the Observatory has been certified to the International Organization for Standardization ISO 9001 Quality Management Systems indicating international recognition of quality management of these services.

The area of services includes public weather services, aviation weather services, radiation and meteorological measurement services, ambient gamma radiation monitoring service, Automatic Regional Meteorological Measurement Services, and Tate's Cairn Weather Radar System Radar Imagery Services.

Furthermore, the Information Technology (IT) service management system supporting the critical infrastructures of the Observatory was also awarded the International Organisation for Standardization/International Electrotechnical Commission (ISO/IEC) 20000-1:2018 certification in 2022.

ISO 9001:2015 Certificate
 Certificate HK17/00026
 The management system of
Hong Kong Observatory Central Forecasting Office
 香港天文台天氣預測總部
 134A Nathan Road, Kowloon, Hong Kong
 中區皇后大道西134A號
 has been assessed and certified as meeting the requirements of
ISO 9001:2015
 For the following activities
 Provision of weather forecasting and warning services.
 提供天氣預測及警告服務

ISO/IEC 20000-1:2018 Certificate
 Certificate No. CC 7854
 This is to certify that Information Technology Service Management System of
THE HONG KONG OBSERVATORY
Information Technology Management Division
 134A Nathan Road Tsim Sha Tsui, Kowloon Hong Kong
 complies with the requirements of **ISO/IEC 20000-1 : 2018** international standard,
 applicable to:
The IT Service Management System of the Information Technology Management Division that supports the provision of critical IT infrastructure services to the Hong Kong Observatory from Hong Kong as defined in the service catalogue

The certificate remains valid subject to satisfactory maintenance of the system which will be monitored by Hong Kong Quality Assurance Agency.

Signed for and on behalf of
HONG KONG QUALITY ASSURANCE AGENCY
 Chief Executive Officer Director

Registered address: 2/F, 21, West Street, Tsim Sha Tsui, Kowloon, Hong Kong
 2/F, 21, West Street, Tsim Sha Tsui, Kowloon, Hong Kong
 Tel: (852) 2225 9111 Fax: (852) 2225 9222
 Note: In accordance with the Agency's Regulations, the Hong Kong Quality Assurance Agency undertakes no liability or responsibility for any product or service supplied by its registrants to customers with the requirements of the Certification Scheme. The use of the Accreditation mark(s) shown on this certificate of registration is subject to the conditions of use set out in the Agency's Regulations. This certificate remains the property of HKQAA and shall be returned when requested by the Agency. Further applications regarding the scope of this certificate and the applicability of ISO/IEC 20000-1:2018 requirements may be obtained by consulting the organization.

Date of Issuing: 16 March 2022 Expiry Date: 15 March 2025
 HKQAA FORM 10

Examples of the certification.

About the Report

The Sustainability Report for fiscal year 2022-23 of Hong Kong Observatory summarises our efforts and achievement in sustainable development over the past year. The report was compiled with reference to the Global Reporting Initiative (GRI) Standards, covering information on material sustainability aspects of the Observatory. The period covered is from 1 April 2022 to 31 March 2023, unless otherwise specified.



This report is prepared annually to meet the needs of:

- the general public receiving the Observatory information via the media, telephone, mobile devices or by browsing the website of the Observatory ;
- all Government Bureaux and Departments;
- visitors to the Observatory; and
- other users of the Observatory services including those from the aviation, shipping, business, industry, education, engineering, public utility and tourism sectors.

This report is divided into three main parts as follows:

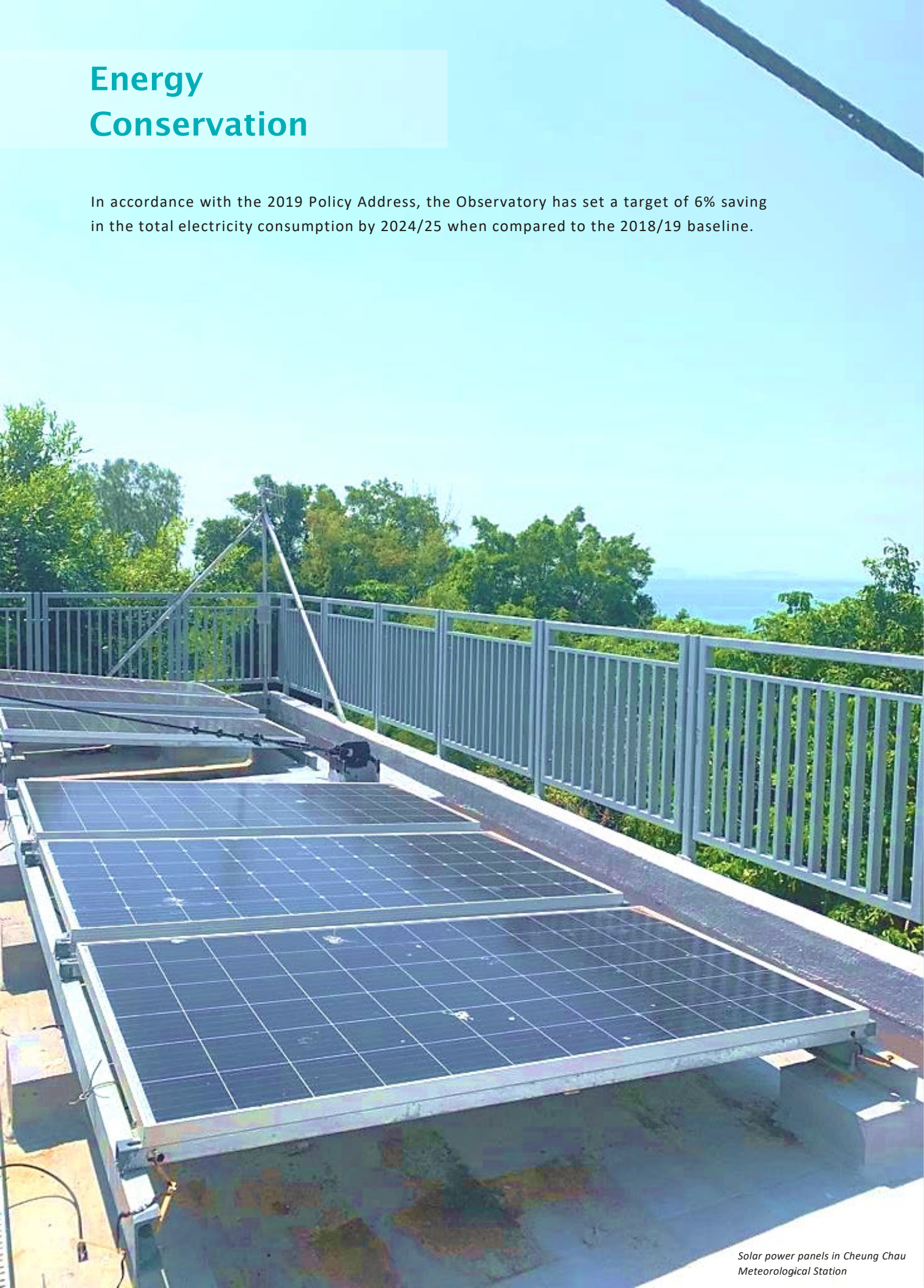
- the sustainability policies adopted by the Observatory and its achievement in support of sustainable development during the fiscal year; and
- the staff development related matters and its achievement during the fiscal year; and
- the activities and initiatives of the Department during the fiscal year;

Sustainability

The Observatory recognises that sustainability extends beyond the realm of "green" practices and encompasses the broader goal of fostering enduring and balanced progress.

Energy Conservation

In accordance with the 2019 Policy Address, the Observatory has set a target of 6% saving in the total electricity consumption by 2024/25 when compared to the 2018/19 baseline.



Solar power panels in Cheung Chau Meteorological Station

To achieve the target, the Observatory has implemented various energy-saving measures, including but not limited to:

- Clean energy, such as solar power, wind power and self-produced Direct Methanol Fuel Cell, has been adopted in automatic weather stations and radiation monitoring stations to support their operations;
- Using energy-saving T5 fluorescent tubes in all the Observatory premises to reduce energy consumption and installing motion sensors to reduce energy wastage;
- Using auto-sensitised water taps in washrooms to reduce water consumption with flow controllers installed to reduce wastage;
- Conducting regular inspection to ensure that lights, computers and other electrical appliances in offices, conference rooms, corridors and common facilities are switched off during lunch breaks and after office hours;
- Setting the ambient office temperature to 25.5°C in summer months and switching off air-conditioning system in winter, wherever and whenever appropriate, by using electronic control panel;
- Using automatic circuit-break timers to switch off unnecessary electrical appliances after office hours;
- Segregating hot and cold air flow by arranging plastic screens in high-performance computer room to enhance cooling efficiency of air-conditioning system;
- Minimising the number of servicing lifts after normal office hours;
- Encouraging staff to use staircases instead of lifts for inter-floor movement;
- Switching off lights, air conditioners, photocopiers, computers and other electrical appliances when not in use;
- Installing solar films in departmental vehicles and security guard rooms.
- Harnessing renewable energy. The Observatory has installed PV panels at Kowloon Tsai radar station and Cheung Chau Meteorological Station to harness solar power and generate electricity.



Use of Direct Methanol Fuel Cell at the outstations

In 2022/23, the annual cumulative electricity consumption after normalisation against activity changes in the intervening years, was 5,018,602 units, a decrease of 5.9% as compared with the base year 2018/19 (5,331,128 units). Together with the renewable energy, the observatory has achieved 6.1% saving and exceed the energy saving target. The Observatory will keep up its effort on energy conservation.

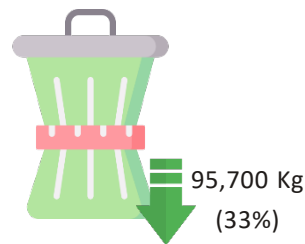
Waste Management

To enhance waste reduction at the source and promote recycling practices, the Observatory has implemented several waste management measures. These measures include:

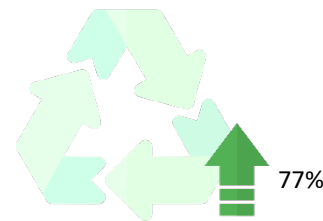


1. Adoption of reusable tableware at departmental functions, and refillable stationery at daily operation;
2. Banning of sales of beverage drinks packed in plastic bottles and tetra paks;
3. Reduction paper usage through electronic means;
4. Setting up shared printers to reduce the purchases of printers and toner cartridges;
5. Collecting empty toners and inkjet cartridges of computer printers for recycling.
6. Collecting paper wastes, plastic bottles and aluminum cans separately at source by recycle bins.

These proactive waste management measures have delivered impressive performance outcomes. Through the reduction of waste generation and the increase in recycling rates, the Observatory has achieved noteworthy progress in its pursuit of sustainability and eco-friendliness.



Annual quantity of waste generated



Annual recycling rate

Air-Quality

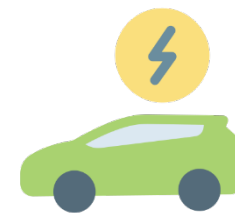
To ensure a healthy work environment with high air quality standards, the Observatory has actively participated in the IAQ Certification Scheme.

Notably, the Brothers Point Terminal Doppler Weather Radar Station has achieved an "Excellent" class certification, while the Observatory's Headquarters buildings have consistently obtained "Good" class certifications over the years. Additionally, newly included sites such as the Miramar office and King's Park office have also received "Good" class certifications.

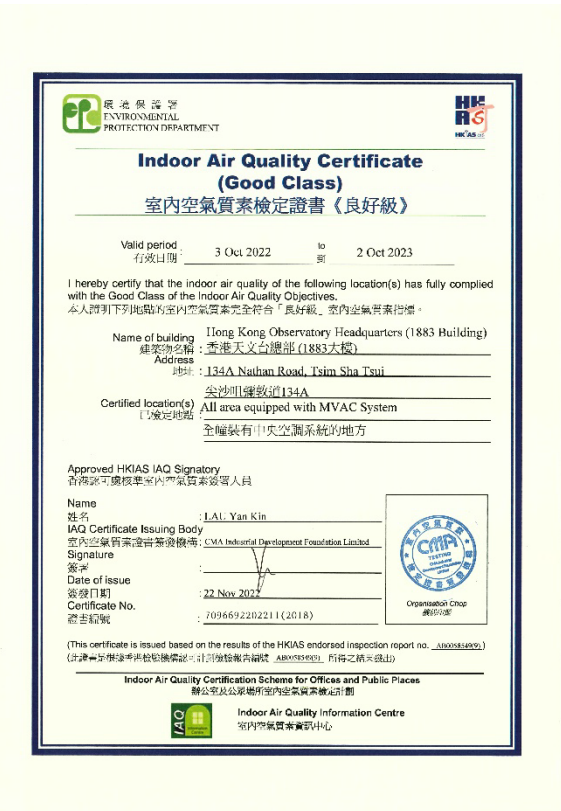
These achievements affirm the Observatory's commitment to maintaining excellent indoor air quality across its facilities.



Furthermore, smoking is prohibited in both indoor offices and outdoor environments at the headquarters. This policy ensures a smoke-free environment throughout the premises, promoting the well-being of staff and visitors and maintaining a high standard of air quality.



The Observatory is also planning to replace its departmental vehicles with electric vehicles (EVs) as part of its efforts to reduce its carbon footprint.



Green Synergy

As part of our core values, the Observatory places significant importance on the active participation of its colleagues in various topics, including green initiatives.

The Observatory has established various committees, including the “Working Group on Energy and Environment” and “Buildings, Grounds and Accommodation Committee”, with the aim of fostering colleague participation in green issues. These committees collect views from staff members across different grades and ranks, contributing to the enhancement of the development, monitoring, and implementation of environmental policies.



The Observatory has also been supporting and participating actively various green events organised by NGOs and other parties, including -



Green Low Carbon Day 2022



Earth Hour 2022



No Air Con Night 2022

2023 Carbon Audit

Paper

Starting from the 2022 edition, the Observatory has ceased the production of printed versions of the Hong Kong Observatory Almanac, an annual publication released in December. Alongside this new measure, the Observatory also closely monitors our daily paper usage. As a result, the cumulative paper consumption for the 2022/23 period amounted to 1,381 reams, showcasing a significant reduction of 13% compared to the baseline figure recorded in 2019/20. This achievement signifies a successful accomplishment of the 5% reduction target set for paper consumption.

Water

In 2022, the water consumption of the Observatory totaled 11,681m³, which is roughly consistent with the average level of water consumption in past few years. By closely monitoring water usage and striving to maintain it at sustainable levels, the Observatory demonstrates its commitment to responsible water management practices.

Others

The Observatory has also been fully compliant with the government's regulations and guidelines concerning green procurement. For example, e-Procurement system was implemented in phases to reduce the use of papers when conducting supplies and procurement activities; and specifications related to green procurement were stipulated in tender documents, wherever appropriate.



Bio- diversity

The Observatory cherishes the bio-diversity of its site and works hard to preserve the natural habitat of trees and vegetation at the headquarters. Expert consultants and contractors are commissioned to help monitor and upkeep healthy condition of the plants.

Apart from its historical and operational values, the woodland at the headquarters also serves as a natural shelter for local birds. It is one of the few remaining semi-natural woodlands in Kowloon. Avian species like Spotted Dove, Chinese Bulbul, Crested Bulbul, Magpie Robin, Black-necked Starling and White-eye are inhabitants of the woodland. The woodland is also of utmost importance as it serves as a stopover for migrating birds. Some birds, including Brown Flycatcher, Blackbird and Grey-backed Thrush, even stay for the whole winter. The woodland is also a habitat for other species.

Creature found in the headquarters

There are currently more than 500 trees at the headquarters. The tree community is mature with exotic species (e.g. *Aleurites moluccana* 石栗, *Eucalyptus* spp. 桉 (屬)) dominating the forest canopy, while there are native species (e.g. *Macaranga tanarius* var. *tomentosa* 血桐, *Cinnamomum burmannii* 陰香) regenerating and palms (e.g. *Livistona chinensis* 蒲葵) growing under it. There is also one mature *Podocarpus macrophylla* 羅漢松 (T429), which is uncommon in the wild but can also be found within the Observatory, with such a size.



Creatures found in the headquarters



Staff Development and Engagement

Staff Development

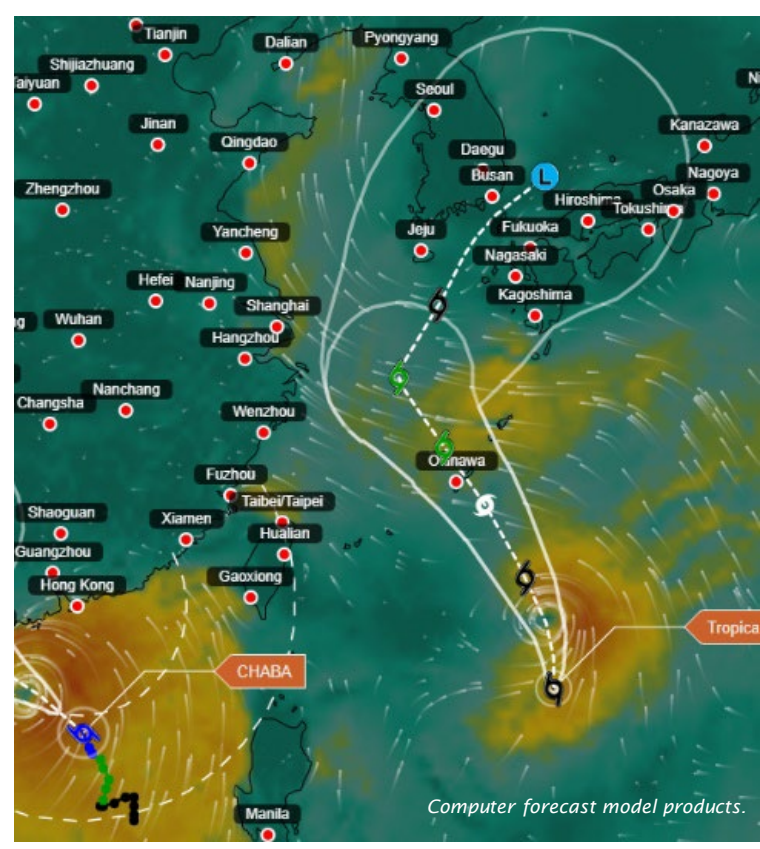
Training and development are vital to the assurance of professional, technical and core competency in support of the long-term sustainable development of the Observatory towards the vision of being a model of excellence in protecting lives and building a better society through science. To this end, the Observatory formulates an annual Departmental Training and Development Plan, and promulgates to all staff the objectives, policies, specific training and development plans and opportunities for the years ahead.

The training programme not only aims to strengthen staff core competency such as leadership and provision of public services, but also assist colleagues to cope with the global trends, including international relations, machine learning, Internet of Things technologies and intelligent crowdsourcing for big data analytics.

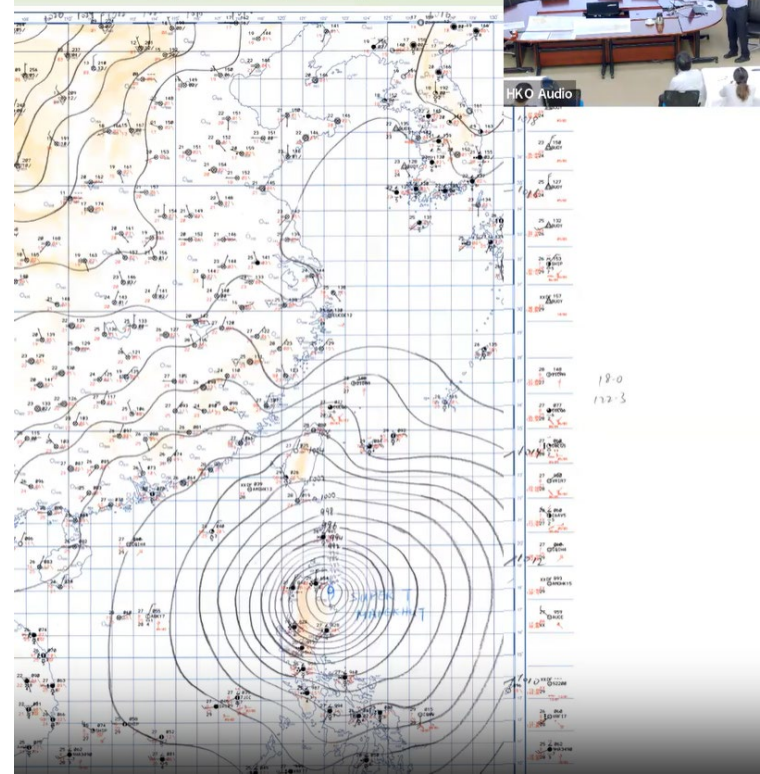
The Observatory has also implemented several measures to facilitate knowledge management and to nurture a culture of continuous learning, including:

1. voluntary mentorship programme;
2. a Sharing Databank;
3. a Cyber Learning Centre;
4. regular Technical Forum, Weather Review Forum and Management Forum.

Examples of the certification.



Example of tropical cyclones





7th Consecutive year recognised as a Manpower Developer

2,987 

Total Training Hours

8.1 Mandays 

Average training time

The Observatory was once again recognised as a Manpower Developer in 2022, demonstrating our commitments in leading a learning culture, resources planning, nurturing and development of talent, and performance management. The training hours during this period have been increased as training activities have resumed to normal after the epidemic.



Equipment installation in outstation.



Occupational Safety and Health

Ensuring the Occupational Safety and Health (OSH) of our staff is a fundamental code for the Observatory's Business. We therefore consistently nominate our employees to participate in OSH courses organised by relevant Government Bureaux and Departments to ensure a safe working environment. One such example is the "General Training Course on OSH" conducted by the Civil Service Bureau (CSB). Circulation of online materials on OSH was regularly made to raise staff awareness as well.

The Observatory also recognises the importance of a healthy workplace in enhancing staff morale and engagement, which can ultimately lead to improved operational efficiency and service quality.

Reflecting our commitment to promoting mental health and creating a supportive work environment for our staff, the Observatory is a signatory to the Department of Health's Mental Health Workplace Charter.

Apart from promulgating workshops in stress management, organised by CSB, in house workshop had also been held during the year for staff participation. Extending the spirit, we also received the "Caring Organisation" logo that celebrates the spirits of caring to the community.



Staff Engagement

Good staff morale and well-being are vital to good governance and service provision. The Observatory sustains its efforts to maintain and enhance mutual understanding and support between management and staff.

Staff suggestion scheme and staff opinion survey were conducted to gauge staff's perspectives on various topics, such as the departmental direction, the green initiatives, and the working environment, etc. Furthermore, a face-to-face session between the director of the Observatory and all staff was arranged to facilitate the communication and foster mutual understanding.



Workshop on mental health.



The face-to-face discussion session of the staff opinion survey



Farewell dinner



Team building activities organised by the staff association and volunteer team

In addition to these efforts, the Observatory organises various initiatives to promote staff wellness and cohesiveness. These include Departmental Consultative Committee Meetings, which provide a platform to discuss staff-related issues, the Hong Kong Observatory Staff Association, which fosters work relations and mutual assistance among members through activities, and a volunteer team that participates in events like charity walks and Christmas carols.

The Observatory launched the “Happy Business” programme in 2004. The Programme aims to help colleagues of the Observatory to derive happiness from their careers and serve the public in a happy mood. Following the resumption of normalcy in the community, we resumed “Happy Business” activities. One of the activities was to visit the Cheung Chau Signal Station, providing staff and their family members an opportunity to learn the history of the Observatory’s work at the signal station.

Additionally, we have a commendation scheme in place to recognise staff with continuous excellent performance or significant contributions. This scheme serves as a demonstration of the department's appreciation for their hard work.



Cheung Chau station was one of the most significant stations of the Observatory. It decommissioned its services on 1st January 2002, marking the end of the era of signal stations in Hong Kong.

Group photo at Cheung Chau signal station

Highlights of the Year

Service Enhancement



Director of the Observatory officiating at the opening ceremony of the backup centre.

New radiological survey vehicle put into operation

In December 2022, a new radiological survey vehicle was put into operation, replacing its predecessor that had served for over ten years.

The new vehicle is equipped with a Sodium-iodide Gamma Spectrometer installed on its roof, which greatly enhances its radiation monitoring capabilities. This spectrometer visualises the gamma-emitting radionuclides present during surveys. It is also equipped with meteorological instruments for measuring weather data.

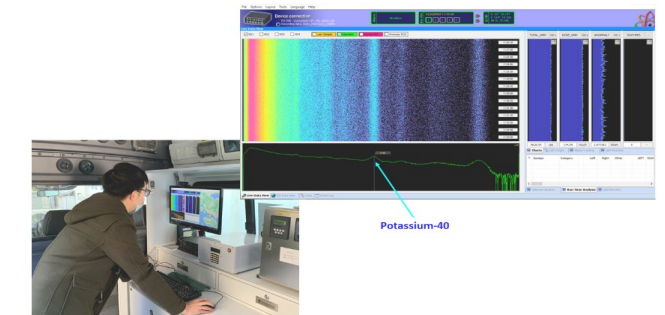
Both the detected radiation levels and meteorological data are transmitted in real-time to the Observatory Headquarters for analysis in support of the Observatory's emergency response work.

Backup South China Sea Tsunami Advisory Center (Hong Kong) commences operation

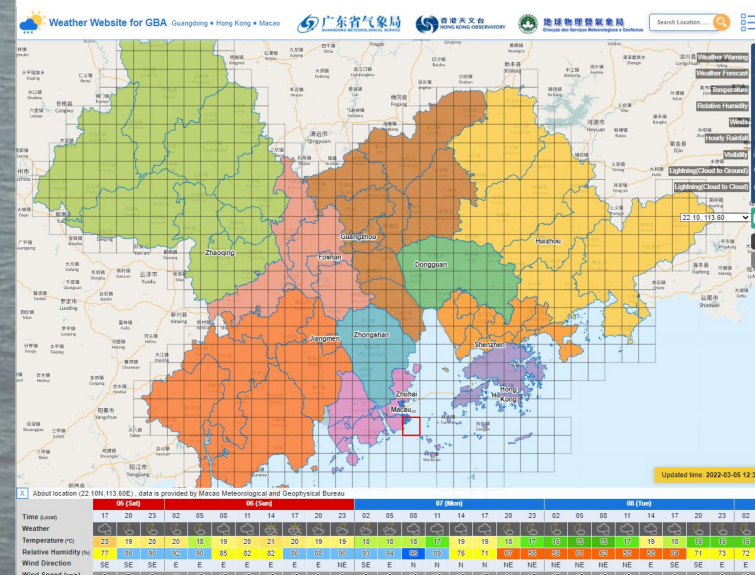
On 29th March 2023, the Backup South China Sea Tsunami Advisory Center (Hong Kong) (BSCSTAC) officially commenced its operations. The center serves as support for the South China Sea Tsunami Advisory Center (SCSTAC) in Beijing, enhancing the early warning capability for tsunamis in the region by providing a tsunami alert service.



The new radiological survey vehicle



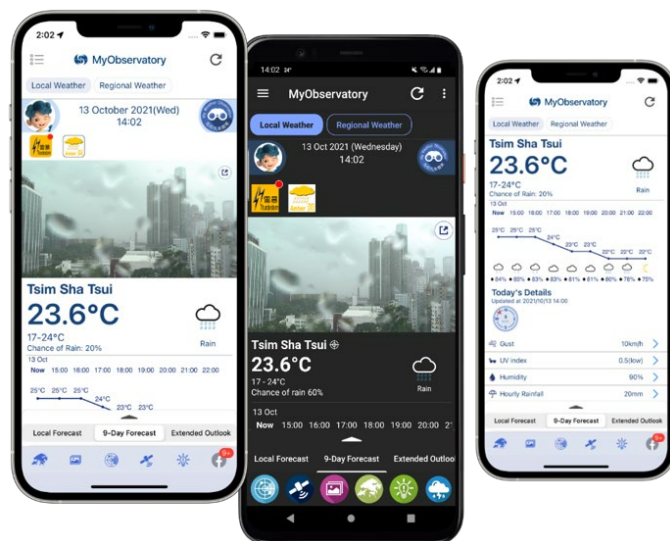
Gamma energy spectrum output by the Sodium-iodide Gamma Spectrometer.



New version of “MyObservatory” app with enhanced personalized features.

The Observatory introduced an updated version of the “MyObservatory” app in May 2022, featuring with enhanced personalized features.

Users can choose the information displayed on the home screen, including real-time weather reports, weather warnings and signals, regional weather forecasts, location-based rain and lightning forecasts, and radar images, making it a customized and convenient experience. User can also select specific locations that they want to monitor, enabling them to stay updated on the weather in different parts of Hong Kong.



“New home screen of MyObservatory”

Enhanced seasonal forecast service

Seasonal forecast for May to July 2022	
Hong Kong is expecting:	1. Normal to above-normal temperature 2. Normal to below-normal rainfall

From April 2022 onwards, the Observatory has improved its seasonal forecasts, offering monthly updates on average temperature and total rainfall in tercile categories for the upcoming three months.

Update of climate projections for Hong Kong

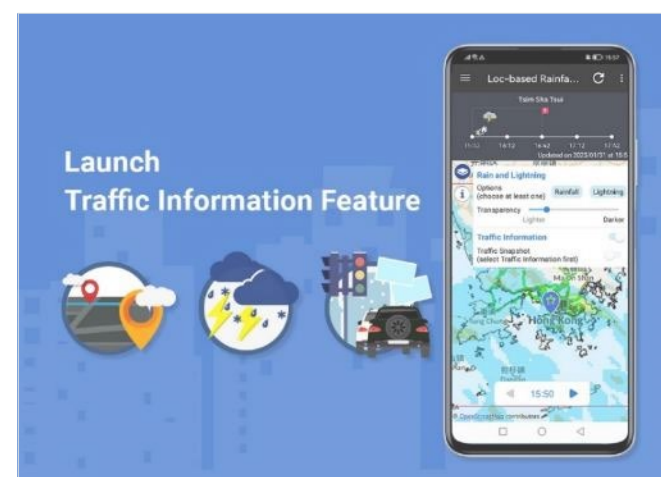
The United Nations Intergovernmental Panel on Climate Change (IPCC) released the Summary for Policymakers (SPM) of the Working Group I contribution to the Sixth Assessment Report (AR6) "Climate Change 2021: The Physical Science Basis" on 9 August 2021. AR6 introduced a new set of 5 scenarios that consider different trends in greenhouse gas concentrations to generate climate projections for the 21st century. Based on the AR6 and newly available climate model data, the Observatory has computed new climate projections for Hong Kong.

Climate Change								
Annual mean temperature projection data for Hong Kong with more details								
	Low SSP1-2.6		Intermediate SSP2-4.5		High SSP3-7.0		Very high SSP5-8.5	
	Mean (°C)	Likely range (°C)	Mean (°C)	Likely range (°C)	Mean (°C)	Likely range (°C)	Mean (°C)	Likely range (°C)
2021-2040	0.8	0.5 – 1.1	0.7	0.5 – 1.1	0.7	0.3 – 1.2	0.9	0.4 – 1.3
2031-2050	1.0	0.6 – 1.4	1.0	0.6 – 1.4	1.0	0.6 – 1.6	1.3	0.8 – 1.8
2041-2060	1.1	0.6 – 1.6	1.3	0.8 – 1.8	1.3	0.9 – 1.9	1.7	1.1 – 2.3

The climate change webpage

New functions of “My Observatory”

The Observatory has introduced a few new features in the “MyObservatory” app during the year, including -

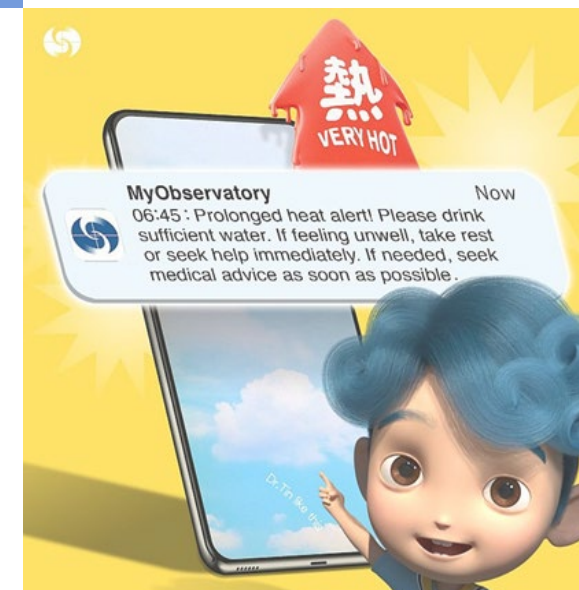


Traffic Information Feature

A new “Traffic Information” layer has been added to the “Location-based Rainfall and Lightning Forecast” page, providing forecast traffic condition for major roads in Hong Kong, to help users better understand the impact of weather on road traffic in the coming one or two hours.

Special Alert on Prolonged Heat

A new push function in “Special Weather Tips” has been added when high temperature persists to alert the public for taking precautionary measures appropriate to their own conditions.



Weather Family stickers

Weather Family WhatsApp animated stickers are available for users to download

Open Day



The Observatory has held the 2022 and 2023 Open Day following the resumption of the service after epidemic.

The 2022 Open Day was held on 26-27 November 2022. It encompassed both the Online and On-site formats and embraced the theme of World Meteorological Day: "Early Warning and Early Action – Hydrometeorological and Climate Information for Disaster Risk Reduction." The public responded to the event with great enthusiasm, resulting in over 310,000 ticket requests during the online pre-registration. Public awareness about the risks of extreme weather under climate change has been successfully raised.



The 2022 Open Day.

The 2023 Open Day was held on 25th and 26th March 2023, featuring the theme of World Meteorological Day: "The Future of Weather, Climate, and Water across Generations." In addition to celebrating the Observatory's 140th anniversary, the event aimed to enhance public understanding of the Observatory's work and its development throughout the years. The public response was overwhelming, with over ten thousand admission tickets distributed.



The 2023 Open Day.



Highlights of the Year /33

Education

The Observatory continues to produce various educational contents, including new episodes of "Cool Met Stuff" and online video courses on tropical cyclone, to enhance awareness and knowledge of meteorology among the public.



Examples of "Cool Met Stuff" episode.

The "Online Video Course on Weather Observation"

In addition, all cloud observation episodes of the "Online Video Course on Weather Observation" are now available in both Chinese and English, to increase reachability for people from different linguistic background.

The Observatory has also published Chinese version of an interactive e-book titled "Decoding Radiation", which introduces types of radiation, radiation monitoring and nuclear emergency preparedness and responses in order to deepen the public's understanding of radiation.



Cover of "Decoding Radiation" e-book.

All the educational resources have been uploaded to the Educational Resources website. The website attracts over 10 million page views every year.

The Observatory has recently revamped the website with better search function and infographics and continues to enrich the content for the public of all ages.



Besides, the Observatory has fully engaged in the Science in the Public Service, a joint campaign organized by the Government bureau or departments and other organisations to promote their scientific work and application of technology to the provision of services for the general public.

The Observatory organized several relevant science talks and participated in the production of the TV documentary programme to promote "Science in the Public Service" and disseminate different meteorological and climate change knowledge to the public in Hong Kong and Greater Bay Area.

In one of the episodes of the documentary, the Observatory introduced its development on microclimate measurement and highlighted its recent patented design of the automatic weather station.



The Observatory organised several workshops to promote various meteorological and radiation knowledges. One of these workshops, conducted in collaboration with the Hong Kong Paragliding Association, focused on weather information and provided participants with foundational knowledge about different cloud types and thunderstorm development.



Group photo of the workshop participants.

Collaboration

The Observatory actively seeks opportunities for cooperation to broaden our vision and assume greater social responsibility.



Group photo of participants of the 21st meeting of MET/IE WG.

One of the key achievements during the year was the election of our colleague as the new Vice-Chairperson of the Meteorological Information Exchange Working Group (MET/IE) of the Asia and Pacific region of the International Civil Aviation Organization.

This appointment reflects our commitment to facilitating improvements in the availability and reliability of meteorological information provided by the members to enhance the safety and efficiency of international air navigation.

In addition to international cooperation, the Observatory actively collaborated with four key national authorities: Civil Aviation Administration of China (CAAC), China Meteorological Administration, China Earthquake Administration, and National Marine Environmental Forecasting Center, specifically focusing on weather challenges. These engagements were aimed at fostering future collaboration to advance disaster prevention, facilitate high-quality development, and drive technological innovation.



The Observatory delegation met with the CAAC.

Besides professional cooperation aimed at enhancing services, the Observatory also plays an active role in various exercises and drills. This includes the "Checkerboard III" exercise, which is based on the Daya Bay Contingency Plan, as well as inter-departmental drills for emergency response to flooding in Tai O. During these events, colleagues from the Observatory provided support to government departments in implementing emergency actions and participated in mock press conferences to keep the public informed about simulated accidents.

Awards



Civil Service Outstanding Service Award Scheme 2022.



"MyObservatory" app wins at the Hong Kong ICT Awards 2022.



HKAEE 2021



The Observatory received several notable awards during the year.

The Observatory received the Gold Prize of the Departmental Service Enhancement Award (Small Department Category) in the Civil Service Outstanding Service Award Scheme 2022 for the seventh time, highlighting its consistent excellence in enhancing its services. Our service culture and the dedication of our colleagues in promoting public understanding of meteorological knowledge and raising awareness of natural disaster prevention have garnered high praise.

The iconic application of the Observatory, "MyObservatory," has won the Silver Award in the Smart Living category at the Hong Kong ICT Award 2022. This achievement validates its value in providing essential weather information and services to the public. The application offers features such as current conditions, 9-day forecasts, and location-based rain and lightning forecasts, providing users with convenient access to accurate and up-to-date weather data.

The Observatory was awarded the Certificate of Merit under the 2021 Hong Kong Awards for Environmental Excellence in recognition of its continual and dedicated devotion in protecting the environment.

Verification Statement

I have verified the information and data of the Sustainability Report for Fiscal Year 2022/23. I confirm that the data presented in the Sustainability Report for Fiscal Year 2022/ 23 are authentic and the methodology for the collection and analysis of data is appropriate. The report represents an accurate account of the Observatory's sustainability actions and performance in the fiscal year of 2022/23.

Liza Siu
Green Manager
Hong Kong Observatory

CONTACT

This report is available on our homepage at the following link or QR code:

<https://www.hko.gov.hk/en/publica/publica.htm>



If you wish to obtain further information or raise any suggestions about this report, please contact :

Green Manager

(852) 2926 8227

dsec@hko.gov.hk

Resource Centre

(852) 2926 8250

Intellectual Property Rights Notice, Disclaimer for Hong Kong Observatory Publication Intellectual Property Rights Notice

All contents contained in this publication, including but not limited to all data, maps, text, graphics, drawings, diagrams, photographs, videos and compilation of data or other materials (the "Materials") are subject to the intellectual property rights which are either owned by the Government of the Hong Kong Special Administrative Region (the "Government") or have been licensed to the Government by the intellectual property rights' owner(s) of the Materials to deal with such Materials for all the purposes contemplated in this publication. The use of the Materials for non-commercial purposes shall comply with all terms and conditions provided in the "Conditions of the Use of Materials available in the Hong Kong Observatory Publications for Non-commercial Purposes" (which can be found at: <https://www.hko.gov.hk/en/publica/non-commercialuse.htm>). Besides, the use of the Materials for commercial purposes is strictly prohibited unless all terms and conditions provided in the "Conditions of the Use of Materials available in the Hong Kong Observatory Publications for Commercial Purposes" (which can be found at <https://www.hko.gov.hk/en/publica/commercialuse.htm>) are complied with and prior written authorisation is obtained from the Hong Kong Observatory (the "Observatory") for and on behalf of the Government. For enquiries, please contact the Observatory by email (mailbox@hko.gov.hk) or by facsimile (+852 2311 9448) or by post.

While every effort has been made to keep the information in the publication current and accurate, the Government of the Hong Kong Special Administrative Region assumes no liability or responsibility for any errors or omissions in the content, and reserves the right to make changes at any time without notice.

Disclaimer

The information contained in this publication is compiled by the Observatory of the Government for general information only. Whilst the Government endeavours to ensure the accuracy of this general information, the Government (including its servants and agents) makes no warranty, statement or representation, express or implied, with respect to the accuracy, availability, completeness, non-infringement, reliability, security, timeliness, appropriateness or usefulness of the information, contained herein, and in so far as permitted by the laws of the Hong Kong Special Administrative Region of the People's Republic of China, shall not have any legal liability (including but not limited to liability for negligence), obligation or responsibility for any loss, destruction, damages, injury or death (save and to the extent any such injury or death is caused by the negligence of the Government or any of its employees in the course of employment) howsoever arising out of or in connection with any use or misuse of or reliance on the information or inability to use such information.

The Government reserves the right to omit, delete or edit, all information compiled by the Government in this publication at any time in its absolute discretion without giving any reason or prior notice. Users are responsible for making their own assessment of all information contained in this publication and are advised to verify such information by making reference, for example, to original publications and obtaining independent advice before acting upon it.

- End -

Hong Kong Observatory
October 2023