

Kadoorie
Farm &
Botanic
Garden
**Annual
Report**
2022/2023



In recent Annual Reports, the activities and programmes of KFBG were reported over calendar years, i.e. 1 January to 31 December, whereas the financial figures were reported from 1 April to 31 March. To synchronise these, in this report activities and programmes are being reported from 1 January 2022 to 31 March 2023, and the financial figures from 1 April 2022 to 31 March 2023. In next year's edition, we will report both activities and financials from 1 April to 31 March.

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MISSION

To harmonise our relationship with the environment.

VISION

A world in which people live sustainably with respect for each other and nature.

VALUES

Sustainable Living

Appreciating the impact of our actions with regard to current and future generations. Having awareness of our connection with the environment. Valuing simple and responsible lifestyles.

Justice

Being fair and accountable. Valuing socially equitable systems that protect the health of the planet, the people and their way of life. Protecting future generations.

Love

Having self-awareness and understanding of the inter-relationship of all things. Having compassion and respect for all life. Recognising that outer discord is a reflection of inner discord. Striving for inner silence.

Participation

Engaging mentally, physically, emotionally and spiritually; fostering respect for different viewpoints, openness, dialogue and teamwork.

Professionalism

Being a role model of caring, integrity, commitment, professional standards and best practices for partners, organisations, individuals and communities.

Learning

Being adaptive and flexible to changing circumstances. Having a holistic outlook. Being practical, objective, creative and insightful.

Happiness

Appreciating our happiness lies in creating and sharing happiness with others.

ABOUT US

As an organisation, Kadoorie Farm and Botanic Garden (KFBG) raises awareness, undertakes rigorous science-based species conservation and ecosystem restoration, and offers new ways of thinking and low-carbon living to respond to the world's problems, all while being linked to the resources and lifestyle of Hong Kong. Our work brings hope and improvement by focusing on nature conservation, sustainable living and holistic education that reconnect people with nature. By working together with the public, governments, academia, NGOs and businesses, we help to protect our common future.

KFBG is situated in the rural New Territories on the northern slopes of Tai Mo Shan, Hong Kong's highest mountain, where two steep spurs enclose its deep-set valley. Within KFBG, there are streams, woodlands, orchards, vegetable gardens, walking trails, live animal exhibits, floral exhibits, sustainable agriculture demonstration plots, art exhibits, a wild animal rescue centre, a native tree nursery, conservation and education facilities, and magical, misty fern gardens. A special department at KFBG is the Green Hub, which is located in the renovated Old Tai Po Police Station – a Grade 1 listed historic building dating back to 1899 – where we run community programmes to demonstrate how we can live sustainably while at the same time respecting nature and each other.

In the post-war years, Hong Kong was flooded with destitute immigrants. Many had traditional knowledge of crop production and livestock farming but no stock; others had land but no experience. In short, they required support to rebuild their lives. In 1951, in response to these pressing human needs, Lawrence and Horace Kadoorie established the Kadoorie Agricultural Aid Association (KAAA), which became a key partner of the Hong Kong government in devising and implementing a plan to help Hong Kong feed itself. The Kadoorie brothers, part of a well-established business family, saw wealth as a sacred trust to benefit mankind. Through such aid, thousands of people received agricultural training: thousands of pigs, chickens and ducks were bred and given to farmers or sold to them on credit as micro-loans; and numerous wells, irrigation channels, roads, footpaths, bridges, pigsties and farmhouses were built.

With the changing times and economy, KFBG's purpose also changed. On 20 January 1995, the Legislative Council of Hong Kong passed an Ordinance (KFBG Chapter 1156) incorporating KFBG as a non-profit corporation designated as a conservation and education centre with a new mission. It is a unique, public-private partnership that, while a public organisation, is privately funded by the Kadoorie Foundation (over HK\$100 million per year). These funds are supplemented by visitor admission fees, donations from the public and corporations, and occasional project-related government grants that enable us to extend our work.

KFBG's three core programmes, namely nature conservation, holistic education and sustainable living, are constantly evolving as they strive to harmonise humanity's relationship with nature. In addition to the many on-site courses, workshops and special events we run, we implement projects throughout Hong Kong, South China and other parts of the Indo-Burma region to better protect and restore biodiversity.





FOREWORD

The start of the year 2022 represented a low point for Kadoorie Farm and Botanic Garden (KFBG), but it finished on a high, with the largest number of visitors in one month ever recorded in our history.

The first months of the year were bleak for Hong Kong: the Covid-19 pandemic caused death and distress in society, international travel to the city almost came to a standstill, public life was suspended, and KFBG had to close its doors to the public from 6 February to 20 April. It felt like a city under siege.

We used the opportunity to conduct a comprehensive wildlife survey in the quiet forests on our hillside, and we found that nature was thriving: the result of several decades of protection, reforestation with native tree planting and habitat restoration. Our 148 hectares are home to porcupines, barking deer, big-headed turtles, leopard cats and many other animals -- arguably the highest wildlife density in Hong Kong.

In April, we were able to resume our holistic educational programmes, sustainable living and nature conservation courses, connecting people with nature. We revitalised the organisation and hired 104 new staff, including six new heads of department, and embarked on new learning and development programmes. We welcomed thousands of schoolchildren again to experience the beauty of the forest, the excitement of the Raptor Sanctuary and the new Monkey Haven. We resumed night walks, butterfly talks and beehive training. The Farmers' Markets at Pier 7 in Central reopened, we surveyed otters in Mai Po and in the Greater Bay Area and returned to Mainland China for our scientific fieldwork. Last but not least, we have been advising the Hong Kong government on farmland policies and the Northern Metropolis Development Plan.

KFBG's work is diverse; whereas the Wildlife Animal Rescue Centre received more than 4,000 animals, including 156 turtles from the illegal wildlife trade, the Flora Conservation Department further developed a model for habitation restoration with the native tree species of Hong Kong.

While the year started without visitors, from 1 April 2022 to 1 April 2023 we welcomed 150,783 people, of which 34,716 came in February alone. And the Green Hub in Tai Po organised many inspirational programmes over the year, showcasing sustainable living, and received a total of 49,570 participants and visitors.

I'd like to sincerely thank our dedicated staff who love their work, and the consultants, friends, members, funders, visitors and other stakeholders who supported us over the past year, a year of resilience and regeneration. This Annual Report reviews our achievements in 2022 and tells the story of our Love for Nature.

Wander Meijer
Executive Director

SUSTAINABLE LIVING AND KFBG GREEN HUB

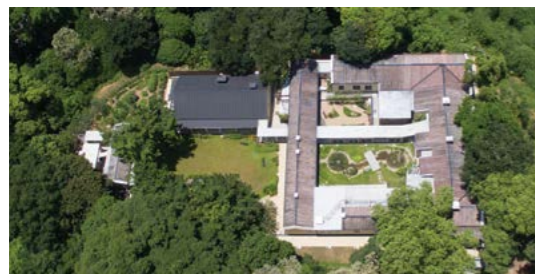
Our sustainable living programmes empower people to live better and lighter on Earth by creating entry points for individuals to take action and to provide platforms to enable collaborations that can discover solutions for a collective transition to a life-sustaining society.

KFBG Green Hub to inspire positive change

The Green Hub for sustainable living, located at the Old Tai Po Police Station, is now in its eighth year of operation. A collaboration between KFBG and the Development Bureau of the Hong Kong government under the Revitalising Historic Buildings Partnership Scheme, the project continues to showcase sustainable living and integrated conservation management.

It inspires visitors by making adaptive use of the declared monument to provide tangible examples of how climate solutions can be integrated into daily life. Between April 2022 and March 2023, we

- received 38,629 visitors attracted by the heritage of the building and the opportunity to learn about low-carbon living;
- continued to build a team of committed volunteer guides, and together we provided professional interpretative services to 4,860 people on raising conservation awareness;
- hosted 34 open-day events covering diverse themes designed to enrich visitors' experience and connection with sustainable producers and pioneers;
- engaged with 1,643 people through a wide range of day courses and residential camps;



- revamped the KFBG Green Hub website with support from the Commissioner for Heritage's Office (CHO) to maximise its compatibility to mobile devices and support self-guided visitors with online interpretative resources.

We also provided support to the Antiquities and Monuments Office (AMO) to organise the exhibition *Taking Strides in Tai Po – a Journey through the District's Heritage* held at the Heritage Discovery Centre from February to June 2022. KFBG Green Hub was also highlighted as a historic destination by the *Walk in Tai Po* initiative jointly organised by the AMO and Walk in Hong Kong. In addition, our team took part in a roving exhibition featuring Revitalisation Scheme projects, and operated an educational booth at the *Heritage Vogue, Hollywood Road 2022* event organised by CHO in November.

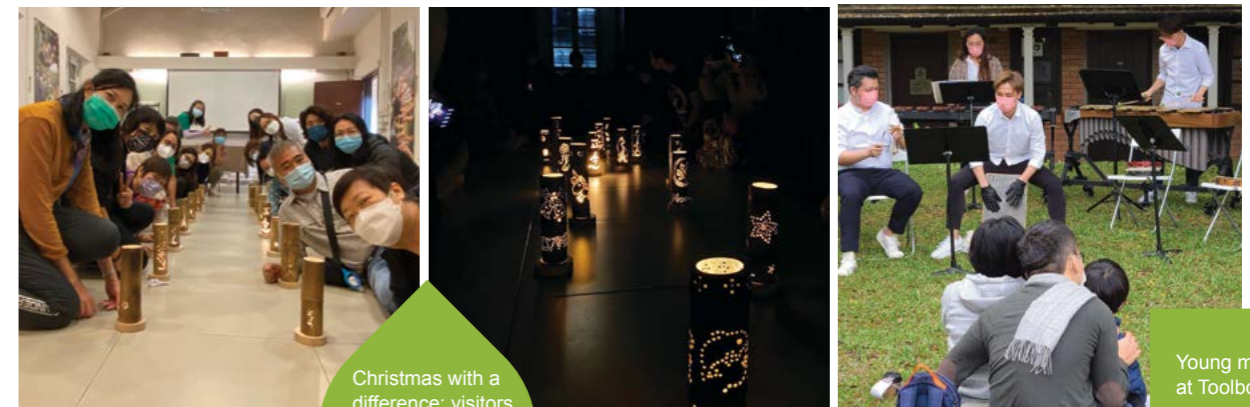


KFBG Green Hub's event booth for Heritage Vogue, Hollywood Road 2022



Adjacent to KFBG Green Hub, Tai Po Market Egretty is one of the most important egret breeding sites in Hong Kong

Our Co-op Shop provides mutual support for local sustainable producers and consumers



Christmas with a difference: visitors at the bamboo-light-making workshop

Young musicians at Toolbox Voyage co-organised with Toolbox Percussion at the Green Hub

Eating well: a starting point to harmonise relationships

Our Eat Well Programme continues to showcase the best practices for sustainable catering operations and empowers people to make informed dietary choices to improve their personal health, the community and environment. Eating well can be exciting, and here are some highlights about how we inspired people over the year:

- In addition to the Eat Well Canteen at the Green Hub, we opened a new Eat Well Café at KFBG in October. With the same set of sustainable operational principles emphasising a low-carbon footprint and minimal waste, our chefs used in-season ingredients supplied by local organic farms and other sustainable producers to serve 27,000 wholesome meals.
- 1,198 people attended our Eat Well cookery classes and workshops. Online workshops reached another 223 people during a time when restrictions on gatherings due to the pandemic were in existence.
- Five residential camps and retreats were organised with cooking-together workshops and/or thematic food events so participants could deepen their knowledge about our food system.
- We worked with specialists to deliver thematic talks featuring protein transition, sustainable coffee production and low-carbon diets to promote practical sustainable alternatives and pathways.



Our team develop a special menu for Eat Well Café at KFBG



Experience coffee residential camp



Online-onsite hybrid workshop to promote a healthy transition to a plant-based diet

Co-creating a collaborative community

Cross-sector collaborations and partnerships enable us to create events that raise awareness of the environmental crises faced today more effectively. Among the events, workshops and programmes we held this year:

- Hong Kong is one of the last places in the world to use bamboo scaffolding. We collaborated with Bamboo Generations, a campaign that uses bamboo to reconnect different generations sustainably, to organise hands-on reskilling workshops and participatory events at the Green Hub in late 2022 so the public can learn about these traditional skills and discover why today bamboo is regarded as a nature-based solution to climate change.
- In collaboration with JupYeah (“taking stuff” in Cantonese), a two-day barter party was organised in January 2023 at the Green Hub where people could swap used clothes, and join in upcycling workshops. A total of 552 people joined the event with 296 jumbo bags of clothing exchanged.
- Green Hub was identified as an Earth Site in the Earth Stories collaborative project between Folded Paper Dance and Theatre Limited and the Common Core at the University of Hong Kong. We provided site support for the project to engage university students to foster a deeper understanding of our land-human relations and advance new artistic and communal possibilities for ecological well-being, resilience and inventiveness. A webinar on Earth Stories across dance, film and portable kinetic sculptures was hosted by HKU in May 2023.
- We organised walkable-city tours at Tai Po in collaboration with Walk in Hong Kong in November to promote walking as a form of sustainable urban mobility. Other community events included visits to Mil Mill and O Park 1 respectively in July and November, and a sharing session on the Lai Chi Wo rural revitalisation programme.
- We facilitated the Hong Kong Society for the Blind to use Green Hub to conduct a pilot project to advance interpretative services for visual-impaired audiences. Braille prints were generated to illustrate features of significance and the ideas were test run in special tours.



Braille prints help people with special needs to appreciate architectural features of significance



Bamboo-themed workshops not only share techniques of this timeless skill with younger generations but also offer a solution to environmental challenges



Perfectly timed for pre-Chinese New Year wardrobe decluttering, Jup Yeah carried the message “consume less and share more”

Mainstreaming sustainable living

- A Carbon Neutral Challenge was launched on Earth Day 2022 (22 April); by 31 March 2023, 81 participating schools and organisations joined the campaign and 168,003 pledges for low-carbon actions were collected. The 18-month project was supported by the Bank of China (Hong Kong) Limited, and a mid-term celebration was held in November.
- 2,489 teachers and students in Hong Kong and Shenzhen attended our Carbon Neutral Pioneer scheme, organised in collaboration with Lang Qing Charity. One of the sessions of the online training workshops was recognised by Tsinghua University, Beijing, under the Global Alliance of Universities on Climate as part of the UN Global Youth Climate Week activity in November. The scheme is part of Lang Qing Charity Limited’s Carbon Neutrality Project for the Greater Bay Area, supported by China’s Ministry of Ecology and Environment and Hong Kong’s Environment and Ecology Bureau. Our Idy Wong served as Vice-Chairperson of the project organising committee.



Community workshops and visits organised under the Carbon Neutral Challenge project to raise awareness



Statistics of direct participation in Sustainable Living Programmes

	2022-23	2021-22	Deviation
Self-guided visitors to KFBG Green Hub	30,968	33,085	-6%
Heritage Tour participants at KFBG Green Hub	4,820	2,270	+112%
Eat Well workshops & cookery courses	1,198	648	+85%
Sustainable Living courses and residential camps (site-based)	1,643	624	+163%
Sustainable Living courses and workshops (online)	10,941	6,208	+76%
Overall number of participants	49,570	42,835	+16%



YOU SHINE

Andrew McAulay

What happens after death?
What happens before birth?
Is not death the source of life?

What we may not understand,
Do we not know intimately?

Is a leaf afraid of falling?
Is a tree afraid of winter?
Does a seed fear burial?

In the grand scheme,
Everything has its place.

A time for decrying,
A time for rejoicing,
A time for despair,
A time for hope.

Each season births the next;
None last forever,
Yet the cycle continues...

Beyond it all,
Before it all,
Within it all,
You shine.

HOLISTIC EDUCATION

	2017	2018	2019	2020	2021	2022-23
School groups	39,815	35,355	28,296	3,151	671	19,436
Commercial groups	7,806	6,905	5,453	136	0	2,461
NGO groups	10,688	12,007	11,563	1,418	3,436	11,051
Individuals/Walk-in	82,843	89,914	65,654	42,753	124,916	132,542
Total	141,152	144,181	110,966	47,458	129,023	165,490

Chart: Number of KFBG visitors over the past six years

Online resources and virtual programmes

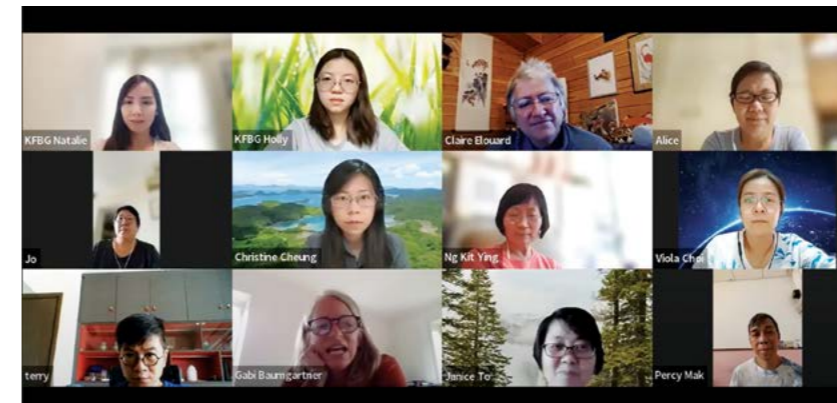
Despite the ongoing pandemic and suspension of education activities and onsite programmes at the beginning of 2022, the department continued to develop new online resources and programmes to connect with a wider audience, especially for schools and families with younger children affected by the special “early summer holiday” arrangement, whereby schools took a break from early March till mid-April 2022, with a shortened summer holiday running from mid to late August. Online programmes were presented during the closure of KFBG from January 2022 to April 2022 including:

New online resources were developed to enrich the online attraction-information portfolio, including three new videos about T.S. Woo Memorial Pavilion, Post Office Pillars and Fruits Forest.

“The Secret World of Wild Animals” online talk for groups and families featuring valuable animal footage and animal sounds captured at KFBG enabled viewers to get in touch with nature.

The **“In Touch with Nature”** five-day online workshop was developed following the early summer holiday announcement, with four classes held in early to mid-April.

The **“Kalimba Keychain & Mandala Workshop”** was offered for participants to make their own handicrafts via the Zoom platform.



Participants share their experiences and inspirations from nature with Claire Elouard on Zoom

“Inspiration from Nature” by Claire Elouard was a three-week, self-guided online course, held in January, offering a combination of interactive live sessions and online materials to inspire students to expand their connection with nature and with themselves.

“Zentangle in Nature” online workshop allowed participants to experience a contemplative practice and create a Zentangle art piece with us.

The **“Virtual Forest Immersion Walk”** reconnected people with nature at their own selected space through the Zoom platform.

Rethinking and Reimagining Education Online Workshop, created in collaboration with the Education University of Hong Kong, offered students an introductory talk on KFBG’s nature education and conservation followed by a self-guided virtual forest immersion walk.

The **Virtual KFBG Tour** for the Vocational Training Council was conducted in late April.

Following the reopening of KFBG in April, onsite programmes and art experiences for different segments were resumed for visitors, while some of the offerings were delivered in a hybrid mode to maximise the reach.

School programmes

“Reconnect with forest six-week nature immersion programme”

This multi-engagement programme, funded by Knorr Bremse & SIE Fund, was a new attempt to provide in-depth experiences in the natural environment for underprivileged students, including those with special education needs, and their families. Participants came for six sessions to experience hiking in the upper-area forest, animal encounters and a low carbon eat-well workshop. A total of 107 students and parents from five project partners participated from July to November 2022.

“Disaster preparedness and response programme”

This programme series was funded by the Hong Kong Jockey Club Disaster Preparedness and Response Institute for secondary school students and communities. Through guided experiences, participants were able to reflect on the human-nature relationship and foster an appreciation for nature. Activities included Natural Wood Workshops, Forest Immersion Walks and online programmes were organised to raise awareness regarding the prevention of and preparedness for global issues such as climate change, loss of biodiversity, disconnection with nature and food crisis.



Participants touch the water from the Lam Chuen River during the Week One hiking activity



A participant appreciates the instant photo she took of the plant she felt connected to



Young campers observing a bird nest fern during the One-Day Insect and Plant camp



A mum and her daughter greet their tree friend in the forest during the two-day camp

“The Secret World of Wild Animals” (SWOWA) and outreach talk

Onsite one-day and half-day programmes and outreach talks were offered. Participants were invited to play the role of animal detective through a series of activities to learn about various native wild animals through observation. They were even able to be close to the rescued animals, which gave them an even greater sense of connection.

Funded by the Environment and Ecology Bureau, the SWOWA and outreach talks were also provided to primary and secondary school students through the “Sustainable Development School Animal Outreach Programme”. A total of 2,623 participants from 22 schools joined this programme within six months. Thanks to the outreach talks, participants learned about our wild animals through valuable animal footage captured at KFBG’s forest and by listening to various animal calls, and were able to build connections with animals from different perspectives.

“Talk to plants”

Onsite half-day and full-day programmes featuring relationships between plants and us were offered for K3 students and above. We invited participants to connect deeply with plants through stories, sensory experiences, art creation and hands-on activities.

Teacher development day

Two schools, namely St Paul’s College and Tak Oi Secondary School, brought all their teachers -- 142 in total -- to the Farm on 3 October and 5 December 2022 respectively to support their teachers’ professional development needs, to connect teachers with nature, as well as encourage them to spread environmental awareness to students and within their communities.

Summer and winter camps

Four themed, popular summer camps were held in July and August. A range of one-day camps and two-day family camps were organised for the shortened early summer holiday, with details below:

“**One-day In Touch with Nature Camp**” provided children aged six to eleven with various experiential activities to guide them into the world of animals, plants and insects, such as animal walks, animal and insect encounters, pot planting and photography exercises.

A “**Two-day Play in the Woods Summer Camp for Parents and Children**” was held in July and August, providing opportunities for participants to engage in insect-themed nature experiences. Participating families created and shared their own nature stories at the end of the camp.

“**Jungle Beat: Drum Circle for Parents and Children**” provided a musical journey for participants to play djembe, an African drum, immerse themselves in the voices of the forest and create rhythmic patterns and energetic beats in the drum circle with others.

The “**One-day Kalimba Keychain & Mandala Workshop**” combined wood polishing, mandala painting, kalimba making and music sharing for parents and children.

During the winter break, four “**One-day In Touch With Nature**” and two “**Play in the Woods -- A Winter Blessing: Two-day Storytelling Camp for Parents and Children**” were organised for children aged three to eight and parents. Through various activities including handicraft-making, story-sharing and animal encounters, parents and children were introduced to the enchanting natural world.

Arts and environment workshops

Natural woodcraft series

The **Natural Woodcraft Series** includes a range of activities that utilise wood debris collected at KFBG to demonstrate the concept of a sustainable lifestyle. They are:

The ongoing “**Natural Woodworking Workshop**” is organised for the public to understand the different wood-recycling methods at our Wood Workshop and to create their own woodcraft products as well as enjoy a relaxing walk in the forest.

The “**Art Corner – Wooden Keychain Workshop**” offered during weekends caters to participants who wish to discover simple joys and hidden beauty through experiential craft activities.

The “**Wood Demonstration Booth**” is conducted by our volunteers to share knowledge of the Farm’s wood-recycling programme and demonstrate the wood crafting process regularly.

A free “**Meet the Carpenter**” tour is provided for the new Friends of KFBG members.

Artist-in-Residence programme

The Artist-in-Residence (AiR) Programme was relaunched in September 2022 featuring Nature Resonance – Wind Chime of Butterflies Installation at Orchid Haven by local artist Mancy Ng. Workshops for adults and families were organised to learn the making of wind chimes. An open call for a 2023-24 new AiR was announced in November 2022, with artists from three different disciplines, namely Kawa Wong, who delivered the **Music Journey: Transcending through Nature** in March 2023.

Ongoing art programmes

The following core programmes are being offered continuously for schools, organisations and individuals; they are:

- Kalimba Keychain and Mandala Workshop
- Natural Woodcraft Workshop
- Music Journey: Transcending through Nature

Transformative programmes

Pause and breathe in nature Zen art and self-guided mediation experience by Changlin Fashi

In collaboration with Changlin Fashi, the Zen Art Experience was set up at the Plaza from January 2022, exhibiting 12 Zen photographs taken by Changlin Fashi, while the Art House was transformed into a Pause & Breathe Space with a self-guided meditation experience open to the public. These popular programmes attracted 22,591 visitors.

Zen of life retreat and Zen workshops with Changlin Fashi

From mid-May, various workshops led by Changlin Fashi were organised to deepen the appreciation of the Zen lifestyle, including a half-day Zen photography and “**Journey with the Heart**” mindfulness workshops, and a three-day “**Zen of Life Retreat**”. The collaboration received good media exposure, while popular local celebrities also helped promote it on their social media channels after visiting the Farm.



Visitors enjoy the Zen photo exhibition while listening to the audio guide by Changlin Fashi at the Plaza

Ongoing transformative programmes

The following core programmes are being offered continuously for schools, organisations and individuals:

- “Return to Yourselves” yoga meditation workshop by Janet Lau
- “Forest Immersion Walk” day version and new “Forest Immersion Walk at Dusk”
- Zentangle in Nature
- “Little Fish Journey - A Mindful Experience in Nature” workshop by Tsang Man Tung

Kadoorie Earth Programme (KEP)

A year-long series of online international ecology talks were delivered by world-renowned ecology speakers, including a two-week Deep Ecology and Gaia Theory online course given by Dr Stephan Harding in June. The series is part of an unfolding initiative to inspire our community to explore the challenges of modern living and how to address them.



Date	Name of programme
22 April	“In Celebration of the Living Earth” by Satish Kumar
27 May	“Gaia and the Health of our Planet” by Stephan Harding
11 July	“From Permaculture to Transition and Beyond...” by Rob Hopkins
11 August	“Opening of the Heart in Connection with Nature” by Claire Elouard
21 June – 5 July	“Deepening Our Connection to Nature: A Journey into Gaia and Deep Ecology” by Stephan Harding, Juliana Schneider and KFBG staff
4 October	“Can Humanity Live within the Doughnut” by Kate Raworth
24 October	“Inspiring Hope through Action” by Jane Goodall
12 December	“Cooking the Message” by Jhon Kwano



With guidance from experienced mindfulness teacher Janet Lau, participants attained a calming status, connecting to their bodies and inner hearts

Two “We Are Nature” residential retreats were organised in February 2023 for staff and in March 2023 for the general public to let participants take a reflective pause and enjoy creative moments in nature with like-minded souls. It was held at Green Hub and KFBG with experiential activities, guided sessions and facilitated dialogues.

Community programmes

Reforestation programme

A total of 14 organisations and corporations planted around 900 trees to support KFBG’s reforestation project by participating in the half-day tree planting activity. Furthermore, two groups of 30 people revisited the tree-planting site, where they had planted seedlings in the summer of 2022, to perform weed-removal work and measure the seedlings.



A corporate participant digs a hole for a seedling

Cooperation with community organisations

KFBG was the venue sponsor for social enterprise **Dream Impact’s** fifth anniversary event targeting social enterprises in Hong Kong. **Enable Foundation** chose KFBG as the venue for the “**Empathic Ecological Education**” workshop for interns from different universities and the “**Objects-Talk**” Co-creation Showcase.

University & school collaboration

We organised a full-day nature immersive programme for 25 undergraduates from the Education University of Hong Kong and for 17 master’s students from Hong Kong Polytechnic University in November 2022 and March 2023 respectively. Students were encouraged to have a deeper understanding of ESG (environmental, social and governance) and the United Nation’s SDG (sustainable development goals) through being immersed in the forest as an embodied and sensory experience.

Internship recruitment

Five student interns were recruited from IVE (Sha Tin) for the 2022 summer cohort. For the 2023 summer cohort, 12 departments from universities in Hong Kong have been contacted, and 17 interns have been recruited.

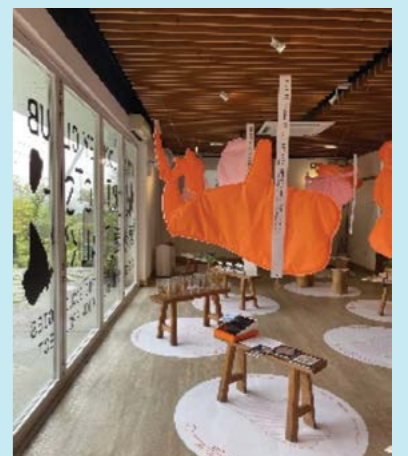
Visitor experience

Activities for general public/walk-in visitors

The general guided tour was resumed in December 2022, after several years of suspension due to Covid-19. A new walk-in art workshop, “**Postcard from Nature**”, was created to replace the weekend guided tour in 2023.



An evocative work of art created at the ‘Postcard from Nature’ workshop



Eco-innovation ideas inspired by different objects in Hong Kong were shown during the ‘Object Talk’ Co-creation Showcase at the Art House

HOLISTIC EDUCATION

Visitor Experience

Animal encounters & discovery tables

This year the Fauna Conservation Department replaced the mule encounter with a new native mammal talk, introducing our Barking Deer, Leopard Cats and Fruit Bats. The outreach volunteers deliver the talks, with support and fun facts provided by the animal keepers. The popular Giant Prickly Stick Insect and Ball Python encounters are improved since we started using naturalised props to showcase the animals. In future we will be introducing a black and white Argentine Tegu Lizard, rescued from illegal trade, during the Encounter activities.

The Discovery Tables now feature stories about the work of the rescue centre, focusing mainly on baby birds and bird rescue. Visitors are always interested to hear more about the work we do behind the scenes and the volunteers are excited to be included in the avian rescue experience.

With a new cohort of outreach volunteers joining Fauna Conservation, we have been able to continue our regular Sunday Animal Encounter and Discovery Table activities. The current pool of volunteers is made up of citizens from all walks of life, ages and experiences but one thing connects them all – their passion and enthusiasm to learn more about nature conservation and to share that knowledge with visitors at KFBG.



2023 Outreach Volunteer Training
The 2023 Outreach Volunteer Training was held by the Fauna team over four days at the end of February. Training included both classroom and practical sessions



Mammal Encounter
Outreach volunteers trained by the LED team introducing our native Barking Deer, Fruit Bats and Leopard Cats to visitors during Animal Encounter Sundays



Python Encounter
The new mobile wooden prop used for python encounter activities gives visitors a chance to appreciate the natural movement of our Ball Pythons up close



Stick Insect Encounter
The branch prop allows staff to recreate a natural setting by which visitors can observe Stick Insects' natural camouflage and movement



Discovery Tables
The new 2023 cohort Outreach volunteers manning the Discovery tables. This year additional bird rescue items have been added to the display specimens



Alligator Ultrasound
City University of Hong Kong's research project involves utilising advanced ultrasound imaging together with CT scans to accurately map crocodylian anatomy

Live displays

Four raptors were donated to KFBG from Ocean Park: two Steppe Eagles, one Striated Caracara and one Barn Owl. All are thriving in their new enclosures and barn owl Melon has even paired up with one of the existing captive males and they are regularly seen sitting together. Visitors are in awe of the size of Steppe Eagles Xena and Clio, and tickled by their loud vocalisations.

Monkey Haven reopened after an extensive upgrade to the facility. Visitors can observe the macaques engaged in a variety of natural behaviours while the monkeys also utilise all aspects of their new environment.

Our Chinese Alligator Yeung Yeung and spectacled Caiman Jo were involved in a collaborative study on medical imaging with City University of Hong Kong and Ocean Park. Both the crocodilians were transported to Ocean Park for a full CT scan and highly specialised ultrasound, and found to be in good condition, with egg follicles seen during the scanning.

We unfortunately lost several animals last year due to old age and other age-related health problems. Among them was the Crested Serpent Eagle, Shan, who at 30 years old was one of the oldest of her species to be recorded globally in captivity.

Enrichment booth

Live Education Displays set up an Animal Enrichment booth over the Hikeathon/Treasure Hunt Weekend. With a cash donation, visitors were able to choose to make one of nine different enrichment items for our resident animals. Over the two days, we raised over \$3,000 in donations and received a large number of enrichment toys that were given to the animals for Christmas.



Steppe Eagle - Clio
Clio, has adapted well to her home at the Raptor Roost where she is companion to Black Kites and a South American Caracara



Steppe Eagle - Xena
Xena arrived from Ocean Park in April 2023 to join our public education programme, she is housed at the Raptor Sanctuary

Monkey Haven Front of Exhibit After a period of upgrading, Monkey Haven reopened in October



Striated Caracara - Elton John
The caracara is the most active bird at Raptor Roost and often entertains both keepers and visitors with his many funny antics



Enrichment Booth
The booth was set up over the two days of the KFBG Hikeathon weekend and gave visitors a chance to make Christmas enrichment items for our animals, raising over \$3,000 in donations

NATURE CONSERVATION Fauna Programmes

Wildlife rescue

Reptiles

Following our search for suitable placement options for government-seized turtles and tortoises, a number of species being held at the rescue centre were relocated to Europe. A total of 55 turtles and tortoises, including four rare Galapagos tortoises, big-headed turtles and Chinese box turtles, were flown to Zoo Delle Maitine, Italy, in March 2022. For some this was just a pit stop, with the collection being further split between Safari Ravenna, Italy, and Turtle Island and the Cuora Conservation Centre, Austria. All turtles could not be released to the wild but have entered assurance programmes that will maintain the gene pools of these important species.

A series of parcels containing live turtles was confiscated at the airport in December; 158 turtles (157 Eastern box turtles and one Eastern musk turtle) were transferred to the rescue centre for temporary care until legal actions have been completed by the authorities.

Birds

In May 2021, the rescue team received a brown wood owl nestling from the staff of Forest Village, Mui Tse Lam and Kop Tong sustainable village programme. On arrival, the owl was suffering from a serious dog-bite injury on its right wing. Fortunately, after weeks of intensive care by the vet and the rescue team, the wound recovered. After 11 months of care, the rescue team returned the owl to the forest of Mui Tse Lam, Sha Tau Kok in April 2022. The bird performed a perfect and silent flight as it left the transport box. The rescue team hope that the bird will have a good life in this beautiful forest.

Waterbirds

A very thin black-faced spoonbill was received in January 2023. It was discovered at Mai Po nature reserve with suspected botulism. After a month of treatment and exercise, the spoonbill fully recovered and was flying well. A GPS backpack transmitter was fitted by the Hong Kong Bird Watching Society and the bird was released at Mai Po in early February 2023.



The rescue team staff packing turtles prior to their placement



Rescue team staff checking a consignment of 158 turtles delivered to the rescue centre after they were seized by Hong Kong Customs



An injured black-faced spoonbill during its rehabilitation in a spacious rescue centre enclosure



The veterinary team performing keyhole surgery to examine and biopsy the internal organs of a captive golden coin turtle (*Cuora trifasciata*)



Senior Veterinarian Alex Gioni running a practical workshop for field researchers on humane methods of DNA collection from wild turtles. Attendees included staff from AFCD, KFBG, and Lingnan University



Brown wood owl released in Mui Tse Lam on Lantau, close to where it was originally rescued as a fledgling



The 60,000th animal to arrive at the rescue centre, a Pallas's squirrel. Here feeding on milk

Veterinary team update

The veterinary team have had an action-packed 15 months. During the Covid-19 outbreak of early 2022, they worked hard to maintain continuous provision of veterinary care – splitting the roster so that the two vets did not see each other for two months. With the return to normal workflow came two major, positive changes to the team: the senior vet took over management of the Wildlife Rescue and Rehabilitation team, enabling tighter collaboration between both teams, and a much-needed second vet nurse was recruited.

Interesting clinical cases this year included root canal treatment for Lula, an educational display leopard cat; successful imping (feather repair) enabling release of a rescued eagle owl; and health care for two batches of confiscated turtles. Purchase of new equipment (an insufflator) greatly increased diagnostic capacity for turtles and tortoises: keyhole surgery can now be carried out to look inside shells and take biopsies from organs. Through collaboration with KFBG's Flora Conservation Department's Genetics Laboratory, it was possible to identify the species and sex of certain animals from DNA samples.

On the research front, KFBG vets undertook a Snake Fungal Disease surveillance project for AFCD and submitted one scientific paper for publication, both in collaboration with City University (CityU). Blood and tissue samples were collected for two University of Hong Kong (HKU) projects and the team also helped liaise with Ocean Park and CityU on a crocodylian veterinary imaging project.

The vet team delivered several training sessions to partners: practical training in humane DNA collection methods for AFCD, KFBG, and Lingnan University field researchers; microchip implantation training for an HKU researcher; practical training in animal health assessment for SPCA inspectors; and as in previous years provided both theoretical and practical teaching to CityU veterinary medicine and veterinary nursing students.

Internal capacity building included training attachments at Ocean Park and Tai Wai Small Animal & Exotic Hospital, and attendance to three international and one local conference. Our senior vet nurse Serena Chung successfully completed a UK-based Advanced Programme in Wildlife Nursing.

Mammals

In February 2022, a Pallas's squirrel became the 60,000th animal received by the rescue centre. The young squirrel attempted to take refuge on the leg of a passing hiker in Pok Fu Lam country park, and resisted attempts to return it to a nearby tree. After three months of rehabilitation, the squirrel was doing well and released in early May.

Three short-nosed fruit bat pups were delivered to the rescue centre after their roosting tree was pruned in an urban park in July. To provide the highest chance of survival for these babies the rescue team decided to try reuniting the pups with their mothers at their original roost site at night. The pups were held in the hands of the team members in the area where they were discovered. An adult female fruit bat appeared a few seconds later, hovered around one of the staff and picked up its pup. The team was amazed by the strong bond between baby and mother.

Fauna conservation projects

Wild snake rescue project

This project is now in its 24th year and is the only such rescue project in Hong Kong. Through collaboration with the Hong Kong Police and AFCD, the project aims to mitigate snake-human conflicts, relocating healthy snakes and conserving some of the rarer local snake species. Nearly 20,000 reptiles have been received through the project, and between April 2022-March 2023 1,683 stray reptiles were received, 89% of which were released back to the wild. In August the project reached a new milestone, with the launch of a pilot scheme allowing “rapid release” of snakes on Lantau by an accredited snake catcher. One Lantau police snake catcher volunteered for this role and demonstrated sufficient skills and knowledge to be authorised to release healthy, native snakes in nearby country parks, following police call-out and capture of the snake, rather than sending the snake in question to KFBG, as per the existing protocol. There are certain guidelines and criteria that must be strictly adhered to and, if successful, the scheme may be rolled-out to other areas of Hong Kong. The pilot has the full support of our collaboration partners and is a step towards improved animal welfare as many species are put under a lot of stress during often long journeys to KFBG. This scheme is also more sustainable as it will reduce vehicle and fuel use.

Golden coin turtle conservation project

The Golden Coin Turtle assurance colony stock continues to grow, with the 2022 breeding season producing 36 offspring, an increase of approximately 30% on the previous year. In preparation for possible releases of this species, a disease risk analysis decision meeting was held in April, attended by 11 core group members including representatives from AFCD, KFBG, Lingnan University and a local expert. The group agreed to move ahead and develop plans to utilise the “quarantined” 2021 hatchling cohort as the first release group in the future.



A successful reunion between a mother and juvenile short-nosed fruit bat. The juvenile was returned to where it was discovered and the mother recognised its call and flew in to pick it up

Romer’s tree frog conservation project

Release of tadpoles at the Phase 2 site at KFBG continued in 2022, and an AFCD permit has been secured to allow translocation of a further 300 tadpoles between 2023 and 2024. Post-release monitoring suggests that the establishment of a resident population of Romer’s Tree Frog at the KFBG site is in its early stages, with at least five separate males heard calling during an evening survey in March. Monitoring will continue throughout the 2023 active season.

Lam Tsuen community bat project

Monthly visits to the bat roost took place between April 2022 and March 2023. The number of Himalayan Leaf-nosed Bats reached a peak of 208 in June, with at least 10 individuals seen carrying young. A total of 279.5 kg guano plus substrate was collected and passed to RAD for composting for eventual sale in the Farm Shop.

Total number of animals received, released or rehomed through the rescue programme during the period 1994 to 31 March 2023.

	Received	Released	Rehomed
Birds	14,809	5,571 (38%)	76 (0.5%)
Mammals	1,586	521 (33%)	88 (6%)
Reptiles	28,179	1,348 (5%)	10,304 (37%)
Stray snakes	19,834	17,687 (89%)	461 (2%)
Amphibians	654	21 (3%)	9 (1%)
Grand Total	65,062	25,148 (39%)	10,938 (17%)

This year we received significant numbers of animals through the rescue programme, in particular birds and reptiles which together contributed 65% of accepted animals.

Total fauna collection figures for the period 1 April 2022 to 31 March 2023 (2021/22 figures included for comparison).

	Total in collection 1 April 2022 (1 April 2021)	Received/ Captive bred	Released/ relocated	Died/ euthanised	Total in collection 31 March 2023 (31 March 2022)
Birds	159 (174)	2,188 (2,282)	690 (773)	1,441 (1,524)	216 (159)
Mammals	67 (79)	157 (135)	32 (37)	139 (110)	53 (67)
Reptiles	747 (794)	251 (171)	31 (130)	124 (88)	843 (747)
Stray snakes	0 (0)	1,683 (1,615)	1,539 (1,507)	144 (108)	0 (0)
Amphibians	0 (0)	0 (13)	0 (1)	0 (12)	0 (0)
Fish	80 (0)	0 (0)	0 (0)	0 (0)	80 (80)
Total	1,053 (1,127)	4,279 (4,216)	2,292 (2,448)	1,848 (1,842)	1,192 (1,053)

The increase in the collection numbers for this year was primarily due to the 158 exotic species seized by the authorities. Rehoming will take place as soon as the legal case is closed.

Other statistics for animals received and released/rehomed compare quite closely with the 2021 to 2022 Annual Report year.

Over the last five years we have been witnessing significant year-on-year increases in birds and stray snakes received at the rescue centre. We assume that this is due to public awareness, healthy local populations of some native fauna and the fact that some birds are nesting all year round, which may reflect changing climatic conditions in the region.

NATURE CONSERVATION

Flora Programmes

Functioning forests for a resilient future

Prior to human impact, Hong Kong and much of South China would have been clothed in a patchwork of seasonal tropical and evergreen subtropical forest. We infer from surviving fragments of this old-growth vegetation scattered across the region that these forests would have been incredibly diverse, with upwards of 300 different tree species forming a lofty canopy plus many more species of lianas, epiphytes, shrubs and herbs filling every available niche. In their original form, these forests would have sustained an abundance of life – birds, mammals, reptiles, insects, fungi and microorganisms – on an epic scale. But written records reveal that, by the late 17th century, Hong Kong had suffered widespread deforestation as a result of logging and clearance for agriculture. It is likely that, with the removal of the trees, a multitude of plants and other inter-dependent species also vanished, and that the ancient soils bound by their roots were rapidly washed away.

The secondary forests that have regrown and which cover parts of Hong Kong today have also been subject to degradation and fire, and they contain a much diminished array of species, most of them reduced to tiny, isolated and genetically impoverished populations. In recognition of the urgent need to conserve what remains and encourage the return of resilient, self-organising relationships, KFBG has joined many other forward-looking organisations around the world in growing local know-how and applying grass-roots methods to bring about ecological restoration. The Society of Ecological Restoration – of which KFBG is a member – defines this as “the process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed”. Through 2022, Flora Conservation Department redoubled its efforts to replenish Hong Kong’s lost genetic, species and ecosystem diversity through a blend of science, horticulture and engagement.

Greatest emphasis was placed on our own hillside: in October, we pledged to plant 25,000 native trees over the coming decade – a period largely coincident with the UN Decade on Ecosystem Restoration, which runs from 2021 to 2030 – with financial support from CLP. In realising this target, we will double the area of native woodland already created on our uppermost slopes over the past decade. But our ecological ambition extends beyond our site itself. Through the summer, we coordinated a workshop on the restoration of Tai Po Country Trail at the request of the Hong Kong Government’s Countryside Conservation Office. The four-day course featured a visit to our Native Tree Nursery and a talk by our tree expert, entitled “Using native plants to restore disturbed habitats”. Participants also joined a practical session in which 38 different native species were planted out. Then, in August, we took stock of another local forest restoration project that we have supported for over 20 years: the revitalisation of degraded hills behind Mui Wo led by local environmental organisation Eagleowl on Lantau. In this time, KFBG has supplied more than 20,000 seedlings representing over 250 native species, transforming the site into flourishing young forest fit for the coming century.



A participant watering a newly planted seedling on Tai Po Country Trail



Shing Mun *fung shui* woodland, a rare example of well-structured, botanically rich forest in Hong Kong

Local knowledge, global expertise

Our plant conservation work reflects a global consensus, espoused in the Convention on Biological Diversity, that halting the ongoing loss of plant diversity is crucial for the long-term functioning of the biosphere and the survival of humanity. We work with partners locally, regionally and internationally in pursuit of this goal. In March, we successfully renewed our accreditation under the ArbNet umbrella of worldwide arboreta in recognition of our scientifically curated collection of rare and threatened trees of the South China region, as well as our efforts to secure native plant diversity ex situ for the restoration of forest ecosystems. We also renewed our status as a patron member of Botanic Gardens Conservation International, a charity that brings together institutes in more than 100 countries to strategise and implement plant conservation globally. Meanwhile, our botanists remained active in assisting the Orchid Specialist Group of the International Union for Conservation of Nature in Red Listing species of the Indo-Burma region and contributing to the development of a code of conduct to reduce demand for wild-collected plants.



Paul Melsom of Eagleowl on Lantau

Botanical discovery, documentation and collection

We continued to use our expertise on the flora of Hong Kong in scouring the local landscape for novelties and rarities in urgent need of conservation. From January 2022 to March 2023, we collected more than 42,000 propagules across the territory, representing more than 40 herb, 12 fern, 35 climbing, 110 shrub and 150 tree species. These included Ford's Chestnut (*Castanopsis fordii*), a very rare oak known from only a few, small, scattered populations, and Glossy-leaved Star Anise (*Illicium leiophyllum*), a species known from just one population of fewer than 10 trees. The resulting seedlings will be planted out to enrich our recovering forest.

Prior to 2022, the Hairy-leaved Holly (*Ilex dasyphylla*) was known in Hong Kong from only two individuals, one on Sunset Peak and one on Castle Peak. However, this species has separate male and female trees, and whereas the former was known to be male, the latter was of indeterminate gender, making artificial cross-pollination problematic. In November, colleagues unexpectedly came across five trees on a remote ridge on Lantau and hit the jackpot: one was a female bearing ripe fruits, giving new hope for the survival of the species. And after more than six years of searching, curator Hon Cheuk Hei discovered a healthy population of *Licuala fordiana*, a stunning understory palm that had long been presumed locally extinct in Hong Kong. The timing was perfect as the plants bore ripe fruits, so seeds could be collected for propagation.

Meanwhile, orchid specialists Pankaj Kumar, Jihong Li and Stephan Gale documented the rediscovery of *Crepidium allanii*, a long overlooked species first described by local orchid luminaries Shiu-Ying Hu and Gloria Barretto in the 1970s.

Previously unknown populations of the rare orchids *Calanthe triplicata* and *C. masuca* were also confirmed, and seed capsules were collected from the extremely rare *Dendrobium loddigesii* and *Pholidota cantonensis* for micropropagation.

Over the course of the year, plantlets of numerous rare trees and shrubs were successfully rooted in our mist house from cuttings collected the preceding year. One notable success was the establishment of the Cicada-wing Vine (*Securidaca inappendiculata*), a large, climbing milkwort and an important medicinal plant of which only a handful of individuals remain in Hong Kong.

During a survey of hillside undergoing slope works near Quarry Bay in February 2023, senior ecologist Jinlong Zhang confirmed the presence of *Calamus rhabdocladus*, a climbing, spiny palm (or rattan) new to the flora of Hong Kong. On the strength of the advice we offered them, CEDD agreed to consult KFBG for a way forward to protect the remaining individuals at the site.

Numerous herbarium specimens were collected throughout Hong Kong in the course of these surveys, all of which have been incorporated into our herbarium. To aid the management of our entire living and preserved collections, Flora Conservation Department invested in new plant management software, IrisBG, in mid-2022. More than 30,000 records have since been transferred to this powerful tool and staff training on its use is ongoing. The database will streamline the sharing of vital conservation data, specimens and propagules with botanic gardens worldwide.



Illicium leiophyllum



Castanopsis fordii



Ilex dasyphylla

Sowing seeds, germinating hope

Once established in our nurseries, rare plants can be propagated by division, hand-pollination, air-layering and other techniques. For example, the native orchid *Ania dunnii* flowered in our orchid nurseries for the first time in March 2022, enabling hand-pollination and subsequent collection of seed capsules for micropropagation. We now have seedlings growing in our culture room – to our knowledge, the first time this rare species has ever been germinated in vitro. In total, 45 orchid species were hand-pollinated over the year, more than 110 seed capsules were collected and in excess of 12,000 orchid seedlings representing 108 species were hardened in our nurseries.

Aristolochia westlandii is a slow growing vine restricted to the Greater Bay Area of southeast China. Fewer than 10 individuals are known in Hong Kong. Through the dedicated efforts of horticulturalist Craig Williams, a plant originally collected as a cutting under permit from AFCD in 2019 flowered for the first time in the Walter Kerr Garden. Because fruits are yet to be observed on wild plants, we hand-pollinated this individual using pollen from a flower donated by Fung Yuen Butterfly Reserve. Coincidentally, seeds of another member of the same genus, *A. thwaitesii*, were successfully germinated for the first time. This diminutive, slow-growing sub-shrub is often damaged by caterpillars of the Common Rose butterfly, and so the new seedlings will allow us to create a more robust population within KFBG. In early 2023, Sven Landrein, our new senior ecologist in charge of integrated species conservation, commenced an in-depth study of this fascinating group of plants to help unravel some of their mysteries and so enable enhanced conservation.



Crepidium allanii



Licuala fordiana



Securidaca inappendiculata

Planting diversity, propagating change

Air layering is a method for stimulating root growth from carefully incised young stems of woody plants so that they form clonal shoots that can then be transplanted. It is the last resort for trees and shrubs that are no longer able to set seed by themselves. Of the species we trialed this technique on over the past year, *Cinnamomum micranthum* is noteworthy because it is represented in Hong Kong by just two lonely individuals, one of which stands at the top of our site. Our experts have since attempted the same approach with the single *Bretschneidera sinensis* found on our site in 2017. Beautiful, exceptionally rare and a Class II China State Priority Protected Species in mainland China, this tree could be the last remaining individual in Hong Kong.

Whenever we succeed in propagating rare native plants, we see to it that as many of their offspring are planted out on our hillside as possible so that they form the canopy of the future. Mang Lung Cheuk and colleagues measured the height of more than 1,000 seedlings planted in 2019 to enrich some of our low-quality secondary forest. His data confirm that up to 87% of the seedlings have survived and that, of the 45 species planted, *Elaeocarpus sylvestris* has grown the most vigorously.

Scientific evidence for informed decision-making

Confirmation of the identity of the *Bretschneidera sinensis* came from our Conservation Genetics Lab. The tree is in a weakened state and so has not flowered once since its discovery, and although its leaves looked suspiciously close to the enigmatic protected species, geneticists Huarong Zhang, Peter Yang and Benny Lai confirmed it as such using DNA. So-called "DNA barcoding" is immensely useful in many facets of wildlife forensics. Through 2022, our technicians processed almost 11,000 DNA samples, including 10,260 shark fin samples, 263 medicinal orchid samples and 60 pangolin scale samples. This work helps us monitor illegal trade in rare and protected species.

Using KFBG's living orchid collections as a reference, we can accurately identify rare orchids found in the medicinal plant trade in Hong Kong. For instance, *Dendrobium albopurpureum* is a beautiful species that grows naturally in southwest China and neighbouring countries, but our DNA analysis confirmed that it is being sold right here as Traditional Chinese Medicine. We also detected *Gymnadenia conopsea*, an increasingly threatened terrestrial orchid native to temperate parts of Eurasia, suggesting that local demand for these plants is exerting an impact on wild populations hundreds of kilometres away.

The Conservation Genetics Lab also assisted colleagues in Fauna Conservation Department to confirm the sex of animals using DNA where this could not be determined from external appearance alone. The sex of five rescued parrots and a seized monitor lizard was confirmed, helping subsequent placement and care. The lab also supported Kadoorie Conservation China in analysing 110 otter faecal samples collected from the northern New Territories. We hope to learn how many distinct individuals are present in Hong Kong.

Our plant experts published 14 scientific papers through the year. Of particular note, ecologist Huijing Zhu and colleagues analysed how historical vegetation types have affected forest recovery in Tai Po Kau Nature Reserve. They found that areas dominated by pine plantations in the 1960s still lack species diversity today, indicating that monocultures can impede regeneration for decades to come.



Fung Ka Yan mounting a herbarium specimen



Peter Yang working in the lab



Aristolochia thwaitesii



TCM tubers of *Gymnadenia conopsea*

Embracing community and building capacity

We seek to engage the public and build strategic partnerships to strengthen plant conservation in Hong Kong and further afield. In August, education officer Kit Lee convened a series of public workshops run by social enterprise Dyelicious on the ecology and economic botany of local dye plant Chinese Indigo (*Strobilanthes cusia*). Participants tried their hand at various traditional dyeing techniques. The department also hosted numerous professional and corporate groups through the year, including CEDD, MTR Corporation and CLP, to spread our scientific and horticultural expertise. In addition, we gave talks at Chinese University of Hong Kong and Hong Kong University of Science and Technology, and we built new research links with University of Hong Kong and City University. In February 2023, our work on monitoring shark fin trade in collaboration with Diego Cardeñosa and others at Florida International University, US, was showcased in a webinar attended by 250 participants in 46 countries.



Tree expert introducing the Native Tree Nursery to a group from CEDD



A successful fabric dyeing workshop using native plants was held in August in collaboration with Dyelicious



Orchid horticulturalist Lee Kwok Keung



Measuring seedlings in one of our canopy enhancement plots

**NATURE
CONSERVATION**
Kadoorie Conservation
China

Once thought to be just a winter migrant, the Oriental honey-buzzard was found breeding in Hainan



Kadoorie Conservation China

Kadoorie Conservation China (KCC) focuses on species and ecosystem conservation in South China. The team was particularly adversely affected by Covid-related travel restrictions, and it has been highly active in Hong Kong during this period. While most efforts were allocated to the study and conservation of otters and farmlands in Hong Kong in 2022, the team was eventually able to revisit several key project sites in the mainland, and reconnect with project partners to revitalise existing projects and develop future work plans.

Otter conservation in Greater Bay Area

Once widespread and abundant in South China, the Eurasian Otter (*Lutra lutra*) is now regionally endangered and only known to occur in inner Deep Bay and Zhuhai's Hengqin Island within the Pearl River Delta. Without a systematic survey, the current population status in Hong Kong and the wider Greater Bay Area is still largely unknown. In view of this, we conducted studies in the region to better understand the species' past and present distributions in South China, and the factors that led to its drastic decline.

In Mai Po, KCC partnered with WWF Hong Kong to monitor and study this rare and elusive animal inside the nature reserve. Camera traps were set up and spraint (otter faeces) were collected for individual identification.

Based on historical data for Hong Kong compiled and analysed over the past 130 years, extensive field surveys, camera trap surveys and questionnaire surveys were conducted in past and potential habitats in the northern New Territories and Lantau Island. The results indicate that otters once occurred over much of Hong Kong prior to the 1960s,

and a number of sites have been identified where otters may still exist.

In Guangdong, with funding support from the Mangrove Foundation in Shenzhen, KCC launched a project to study the otter population in the region. So far, the team has found evidence of otters on Qi'ao Island of Zhuhai, representing a new location of otter occurrence.



Adult Eurasian Otter from Mai Po Nature Reserve © KFBG & WWF-Hong Kong

KCC is studying the Eurasian otter in the wetlands of the Greater Bay Area



Farmland bird survey in Hong Kong

In response to the release of the Hong Kong government's Northern Metropolis Development Strategy, KCC launched Hong Kong's first farmland bird survey. The yearlong study over nine farmland sites within the proposed Northern Metropolis area resulted in a list of 154 species (28% of all species of Hong Kong), with 66 species of conservation concern. The surveyed farmlands are interspersed with brownfields, villages, infrastructure, and other anthropogenic land uses and are susceptible to disturbances, incompatible development plans and environmental destruction.

Analysis showed that Sandy Ridge Wetland Mosaic, Chow Tin - Lei Uk, and Tai Po Tin - Shan Kai Wat are the top three farmlands with the highest conservation value in the study area. We recommend that future development plans should incorporate a comprehensive farmland conservation strategy to safeguard these farmlands of both natural and agricultural significance. The findings together with our conservation recommendations have been shared with the relevant government authorities, ENGOs and institutions.

Hainan lowland biodiversity survey

Hainan is China's largest tropical island and a major stopover for migratory birds, but its lowland biodiversity is generally overlooked. KCC conducted a biodiversity study at Panjia Nature Reserve, which borders Hainan's largest reservoir Songtao Reservoir. The project involved a camera trap survey and the first breeding raptor survey in South China. Twenty-three raptor nests were found during the breeding season (March to July), of which 11 nests were monitored until the fledglings left their nests. Some of these nests belong to the nationally protected Oriental Honey-buzzard (*Pernis ptilorhynchus*), representing the first breeding record of this species in Hainan.

Guangxi Cao-vit gibbon conservation

KCC initiated the Cao-vit Gibbon Conservation Project in Guangxi in early 2023. This project aims to develop a co-management plan for Bangliang National Nature Reserve to remediate habitat degradation of the Cao-vit Gibbon – one of the most threatened primates on Earth, with a global population of around 150. By using stakeholder engagement approaches, the plan will empower the local communities of the Zhuang minority to restore and sustainably manage their forests.

Contributing our expertise

The team continues to contribute to gibbon conservation globally. KFBG was nominated as one of the founding members of the Global Gibbon Network, a new initiative launched by leading gibbon conservationists.

In 2022, the work of KCC was presented at various events, and team members served as expert assessors/reviewers, contributing their expertise. For example, KCC's River Tern Conservation Project was featured at the Year of the Terns – World Seabird Day webinar series organised by East Asian-Australasian Flyway Partnership. Yang Jianhuan served as assessor for Chinese snakes in the update of the IUCN Red List of Threatened Species, and he was also nominated as a member of the Endangered Species Advisory Committee of Hong Kong's Agriculture, Fisheries and Conservation Department.



Critically endangered Yellow-breasted Bunting recorded during the farmland bird survey



Hong Kong farmlands are an important but neglected wildlife habitat



Hainan Panjia Nature Reserve is a haven for raptors, and other wildlife too



The Cao-vit Gibbon is confined to the karst forest on the border between China and Vietnam, particularly vulnerable to habitat degradation. © Colorful Nature Films

Public outreach

To promote farmland conservation in Hong Kong, KCC together with the Regenerative Agriculture Department (RAD) and Ecological Advisory Programme (EAP), organised a study tour for the Hong Kong Institute of Architects. The group, including Mr. Wong Kam Sing (GBS, JP, former Secretary for the Environment), was guided through various sites at Ta Kwu Ling, highlighting the conservation values of Hong Kong's farmland, land-use and development issues, and KFBG's recommendations for the Northern Metropolis Development Strategy.

The Countryside Eco-festival was held successfully at Green Hub in February and March 2023 to promote farmland conservation among the general public. The event comprised of weekend markets, DIY workshops, public seminars, kids' drama, art installations, and photo and video displays, attracting more than 2,000 visitors to Green Hub.

As an outcome of our KFBG's farm-wide biodiversity survey, the KFBG Pocket Guide series was launched in 2022. Each pocket guide features more than 70 commonly seen bird or butterfly species living at KFBG, including when and where to see these amazing animals. The guides are available at the Farm Shop at KFBG.

As part of the Summer Eco-exploration programme, butterfly walks and a two-day camera-trap workshop were organised. These are new activities developed for our visitors, and the workshop is known to be the first public camera-trap workshop offered in Hong Kong.

Weibo and Wechat are KCC's major social media channels to promote nature conservation in mainland China. A total of 152 posts were published in 2022 and the first quarter of 2023, resulting in a total readership of over 3.6 million.



A local craftsman presents his products inspired by the local biodiversity at the Countryside Eco-festival weekend market



Zheng Xi of KCC presents the findings of the farmland bird survey at a public seminar during the Countryside Eco-festival



Young children learn about farmland biodiversity and their habitats through interactive drama

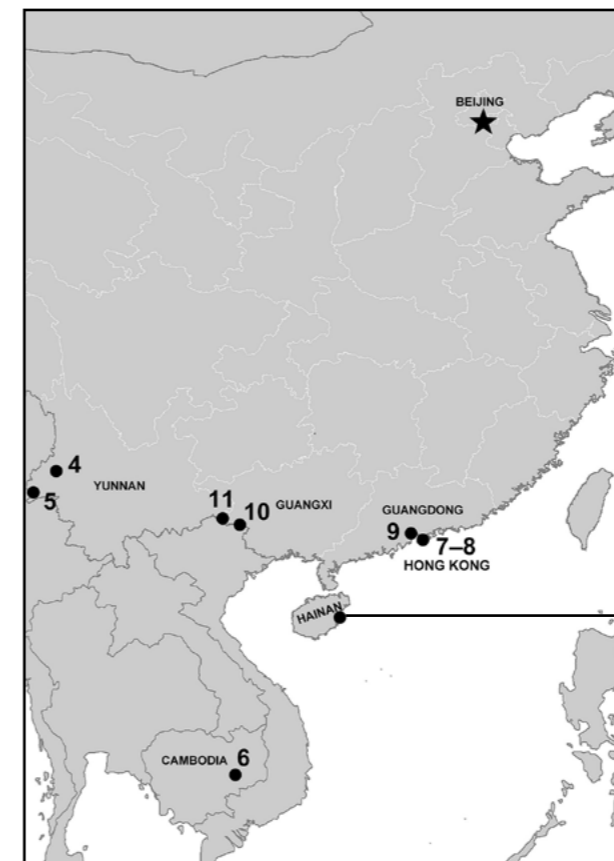
New discoveries

Based on specimens collected by the South China Biodiversity Team from Guangdong province in 2000, Yang Jianhuan and Yeung Ho Yuen described a snake species new to science, the Lingnan reed snake (*Calamaria arcana*), in collaboration with Dr. Michael Lau of Hong Kong Wetlands Conservation Association.

Philip Lo co-authored with a Macau entomologist to document the recent range expansion of the Fluffy tit (*Hypolycaena amasa*), a lycaenid butterfly of tropical origin, in the Pearl River estuary. This species was first recorded in Hong Kong in the autumn of 2021 and local populations have since been established.



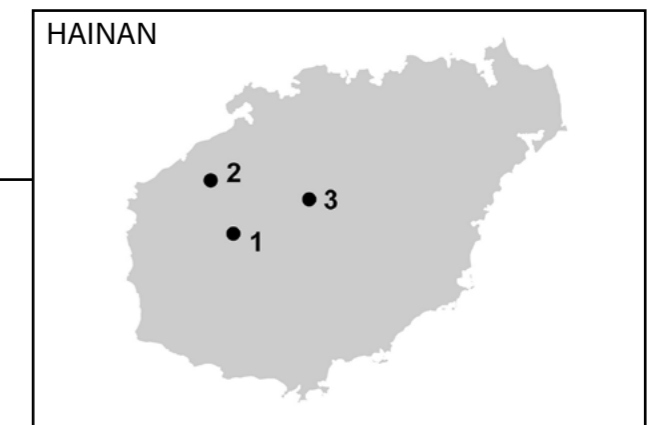
Fluffy tit (*Hypolycaena amasa*) has been found to have expanded its range in the Pearl River estuary, and a population has been established at KFBG



KCC project sites

1. Hainan Gibbon Conservation
2. Hainan Eld's Deer Conservation
3. Hainan Lowland Biodiversity Survey
4. Yunnan Gaoligongshan Biodiversity Conservation
5. Yunnan Tongbiguan Biodiversity Conservation
6. Cambodia Biodiversity Conservation
7. Farmland Bird Survey, Hong Kong
8. KFBG Fauna Survey, Hong Kong
9. Otter Conservation, Greater Bay Area
10. Guangxi Cao-vit Gibbon Conservation
11. Southwest Guangxi Biodiversity Survey

★ Beijing Representative Office



NATURE CONSERVATION

Advice on Protecting Local Ecology

In the reporting period, KFBG was actively involved in protecting local ecology, wildlife and their habitats, as is the organisation's brief. Besides routine participation in various public consultation systems relating to environmental protection and land-use planning, we were also proactively engaged in two cases that directly contributed to the reduction of mortality of wildlife. They are described below.

From January 2022 to March 2023, the Ecological Advisory Programme (EAP) submitted written comments on more than 250 planning applications, three project profiles, four environmental impact assessments and one proposed amendment to an outline zoning plan (OZP). We attended a Legislative Council hearing for the proposed amendments to the Town Planning Ordinance, a Country and Marine Parks Board hearing for the proposed Robin's Nest Country Park, and a Town Planning Board hearing regarding the proposed amendment to the Tsing Yi OZP. We also participated in public consultation exercises carried out by the government for several large-scale projects, such as the East Lantau Metropolis, the reclamation proposal at Tseung Kwan O, and the proposal regarding future railways and major roads beyond 2030.

Numerous site visits were conducted to investigate ecological destruction cases, to gather ecological information for submissions and for general or routine checking of sites of ecological importance. Suspected unauthorised ecological destruction cases at many sites were reported to the relevant authorities. We also attended meetings with various government departments and environmental NGOs (ENGOS) with regard to high-profile conservation issues and policies. Some highlights of our work are described below.

The construction of Tung Chung River Park, part of the Tung Chung New Town Extension (TCNTE) project and designed to revitalise the channelised river section, commenced in the reporting period. One of the first steps was to divert the stream water from the works site. Although the river section of concern is largely concreted, certain parts of it still contained natural substrates and thus were inhabited by many aquatic organisms that would all die after the diversion because the affected section would dry out.



Fish and tadpoles were rescued during the translocation exercise at Tung Chung; without this action they would all have died

Dead Emerald Dove (*Chalcophaps indica*), an uncommon local bird species, observed outside the glass façade at Mei Foo MTR Station; top right: suspected collision mark

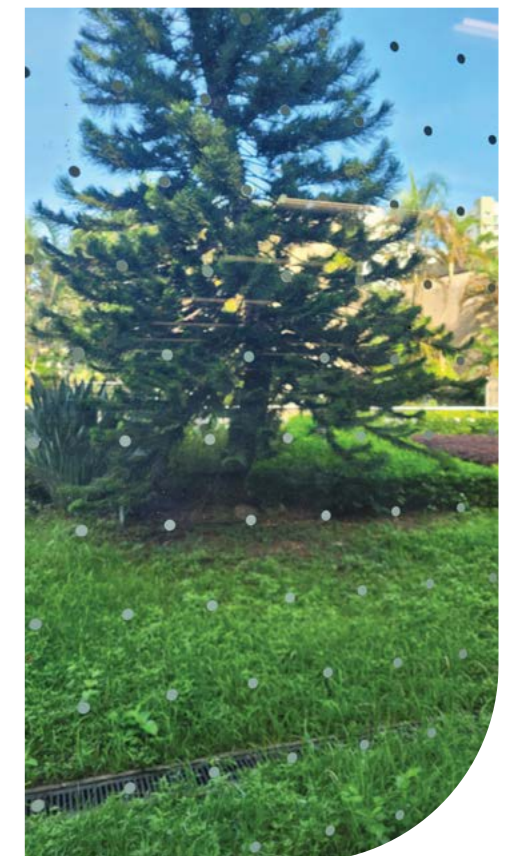


During our regular meetings with the Civil Engineering and Development Department (CEDD) on various environmental issues relating to the development of TCNTE, EAP and another ENGO raised this issue, and CEDD agreed to carry out a fish-translocation exercise, even though it was not a requirement under the Ecological Impact Assessment for the project.

The exercise was conducted on three consecutive days in late February and early March 2023, which EAP joined. More than 5,000 native aquatic fauna individuals, notably fish, herpetofaunas, crustaceans, insects such as dragonfly nymphs, and including species of conservation concern – for example, the Beijiang Thick-lipped Barb (*Acrossocheilus beijiangensis*) – were rescued during the three-day exercise; these individuals were translocated and released to nearby suitable habitats.

In mid-2022, our executive director and EAP were invited to give a webinar talk to members of the Hong Kong Institute of Architects (HKIA) regarding KFBG's views on the Northern Metropolis, and EAP was invited to contribute an article to a special issue relating to urban-rural symbiosis in the institute's journal. Over 100 people attended the webinar, which was well received. A symposium was also organised by the HKIA for invited writers of the special issue to exchange views. We hope by attending such events to mainstream ecological and conservation consideration into the development of the Northern Metropolis.

Starting from mid-September 2022, several dead birds were spotted outside the glass façade of Mei Foo MTR Station. It is suspected that these birds were killed colliding with the façade as the glass perfectly reflects the vegetation of the garden outside; it seems the birds mistake the glass for part of the garden and try to fly through it. Indeed, this was not the first occasion dead birds have been observed at this locality, but the situation this time was worrying – a total of five dead birds were observed in less than one month, from mid-September to mid-October 2022, including species of conservation interest such as a Lanceolated Warbler (*Locustella lanceolata*). An injured Oriental Reed Warbler (*Acrocephalus orientalis*) collected from this area was even sent to our Wild Animal Rescue Centre in October 2022, after it was also suspected to have crashed into the façade. EAP picked up the case and liaised directly with the MTR; after discussions, the MTR installed bird collision-prevention film on the façade in question in late 2022. We hope this can help reduce bird collisions in this area in the future.



After EAP's intervention the MTR installed bird collision-prevention film featuring a dotted pattern on the façade

HOLISTIC ESTATE MANAGEMENT

Restoring balance

Our over-arching aim for site management at KFBG is to encourage the steady, directional return of balanced communities of native plants, animals and fungi. Balance, we believe, is at the heart of ecological resilience – the ability of an ecosystem to resist damage and recover from perturbation. However, recognising that we ourselves do not have the power to repair disturbed, let alone destroyed, complex ecosystems, we see our role as putting in place the essential building blocks so that nature can rehabilitate self-organising relationships itself. This is a process of learning by doing: we test planting approaches, we trial different species mixes and management interventions, and we observe, analyse and document outcomes, so that, through deduction, we can ensure that the necessary conditions prevail. This process has taught us that healthy soils are critical, that certain species work antagonistically and others synergistically in different situations, and that key barriers to establishment must be overcome at the right time to ensure vital community milestones are achieved. This work is inherently interdisciplinary, and this cohesion is what drives us.

Through 2022, our forest restoration and canopy enhancement programmes continued apace. We planted more than 3,000 seedlings representing 120 native tree species into the flourishing new native woodland at the top of KFBG, and a further 1,500 seedlings representing more than 90 species onto former fruit terraces across its mid-elevation slopes. The planting mix included numerous rare species so as to diversify



Our forest restoration site

the growing canopy. As these trees reach maturity, they themselves will become seed sources and give rise to future generations. Importantly, we share the fruits of our labours: over 1,500 native seedlings were supplied to third parties for habitat restoration projects within country parks and for urban greening and research purposes throughout Hong Kong.

Meanwhile, hundreds of herbs and shrubs representing more than 75 native species were added to theme gardens to further enhance biodiversity and replace exotic weeds. In turn, these plants attract local wildlife, signalling the recovery of delicate symbioses. Butterflies, bees, beetles and ants were amongst the insects seen foraging on the flowers of the rare native thistle *Cirsium japonicum* in the Walter Kerr Garden in the spring. With its architectural form, large leaves and attractive pink and lilac inflorescences, this is a species of great horticultural potential, especially for wildlife-focused gardens.



Native tree seedlings in the nursery

Banishing weeds ...

The scourge of alien invasive species presents one of the biggest challenges to restoring ecological balance. Before our foresters can plant trees and our horticulturalists herbs and shrubs, we first need to remove the noxious weeds that outcompete and kill off native plants. Tonnes of them were cut back, dug out and discarded from top to bottom of our site: across a large swathe of our forest restoration site to make way for tree planting, under abandoned orchards as we convert them to native seed forest, on a newly cleared slope that is being groomed to host our Corporate Habitat Restoration Scheme, and from numerous planters in and around our theme gardens, including Fern Walk and Orchid Haven.

Among KFBG's worst weeds are Beggar's Ticks (*Bidens alba*) and Firespike (*Odontonema tubaeforme*), both of which form dense thickets that rapidly out-shade local groundcover, as well as Devil's Ivy (*Epipremnum aureum*), Arrowhead Vine (*Syngonium angustatum*) and Heartleaf Philodendron (*Philodendron hederaceum*), all of which encumber trees and prevent native climbers and epiphytes from making a comeback.

But perhaps our most aggressive weed is the aptly named Mile-a-Minute Vine (*Mikania micrantha*). In November, Flora Conservation Department field staff undertook targeted removal of this blight across KFBG's slopes. Timing is important: Mikania must be removed before it starts to produce seeds, otherwise disturbing it can actually aid its dispersal, making matters worse. This mammoth effort was greatly assisted by a group of HSBC volunteers, who spent a day with us removing Mikania, Zebra Plant (*Tradescantia zebrina*) and other weeds in November.



Cirsium japonicum

... And brandishing seeds

This activity allowed our hillside to breathe again and the newly vacated ecological space could then be put to better use. Approximately 400 seeds of various native trees, including *Ormosia pachycarpa* and *Sapindus saponaria*, were broadcast directly onto several plots on upper slopes to enhance species diversity and, in time, fill canopy gaps.

One noteworthy addition to KFBG's flora is Hong Kong Sinopora (*Sinopora hongkongensis*), a magnificent laurel found only on Tai Mo Shan – nowhere else on Earth. A total of 10 saplings were dug in at strategic locations. Without such intervention to propagate the one remaining fertile tree known in the wild, this species is doomed to slide into extinction.

Our Butterfly Garden became the focus of revitalisation from late 2022. Under the guardianship of horticulturalists Charlotte Shiu, Jenny Li and Amy Tsang, intensive weed removal was carried out in winter, followed by replanting with local plants from spring onwards. We aim to demonstrate that all native butterflies can survive perfectly well without an exotic plant in sight.

Meanwhile, several rarities planted in previous years began flowering for the first time. This allowed Craig Williams and his team of gardeners to attempt hand-pollinations so that our precious few individuals can be transformed into healthy populations. Cheung Man Kwong pollinated the strikingly beautiful King Snake Creeper (*Passiflora cochinchinensis*), a climber known from only three localities in Hong Kong, and the Hirsute Gambir (*Uncaria hirsuta*), a liana known from just four localities that is used in traditional medicine. Intriguingly, the former is the only recorded host for the rare Red Lacewing butterfly (*Cethosia biblis*) and the latter is a host for the rare Commander butterfly (*Moduza procris*), so, with luck, helping these plants regenerate should do wonders for rare butterflies, too.



Plot 107 Before

Plot 107 After

Getting to the root of the problem ...

Although our biochar machine remained under maintenance throughout 2022, the biochar team remained busy upgrading key features to ensure that the facility meets new operational and emissions targets set by the Environmental Protection Department of the Hong Kong government. To prepare for a commissioning run, the machine was tested four times between January and February 2023.

Meanwhile, feedstock for the machine continues to be put to one side. During 2022, over 130 dead, hazardous or diseased trees were removed and almost 200 trees were pruned by Tracy Ho, Eric So and colleagues in our Arboricultural Tree Team; a further 45 problematic trees were removed by contractors. Routine tree monitoring was conducted along carriageways and footpaths, and detailed risk assessments were conducted for 58 potentially hazardous trees.

Selective thinning and structural pruning are vital steps in the conversion of low-quality secondary forest into enriched native woodland. These treatments help to improve the structure of the remaining trees and promote the growth of seedlings planted into newly created gaps. At our forest restoration site, more than 100 common trees, mostly *Machilus chekiangensis* and *Mallotus paniculatus*, were removed and more than 400 individuals of a range of species were structurally pruned.

The same approach was applied at the Never-Never Trail, where Ryan Chiu and Leo Wu's Silvicultural Tree Team has been busy undertaking ecological enhancement. More than 350 common trees and shrubs, many of them in poor health, were thinned out over the year. Thereafter, 480 remaining rare and ecologically valuable trees, including *Machilus pauhoi*, *Syzygium hancei*, *Castanopsis faberi* and *Itea chinensis*, were structurally pruned to improve their form.

Wood piles stacked at several locations were processed into woodchip. This invaluable forestry by-product was applied to several abandoned orchard terraces to improve soil quality and structure. Approximately 45 tonnes of wood mulch were applied to the New Magnolia Garden, slopes around Old Signpost Corner and parts of the Never-Never Trail. A further 30 tonnes of fallen leaves were collected by our road sweeper, composted and then put back onto the forest floor to stimulate root growth.



Epipremnum aureum invading the canopy



HSBC volunteers weeding



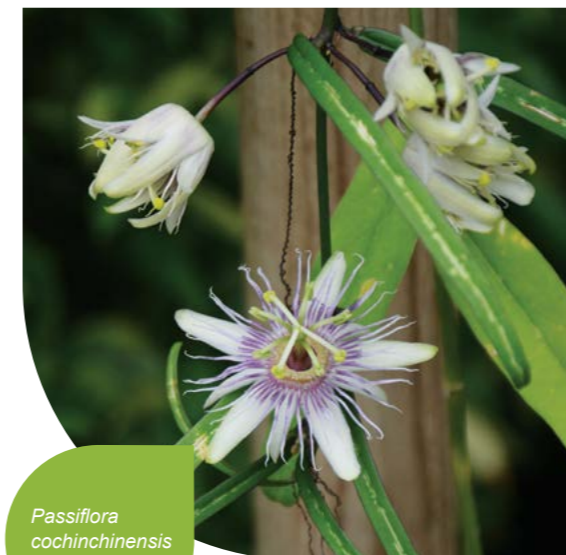
Sinopora hongkongensis seeds

... And the heart of the matter

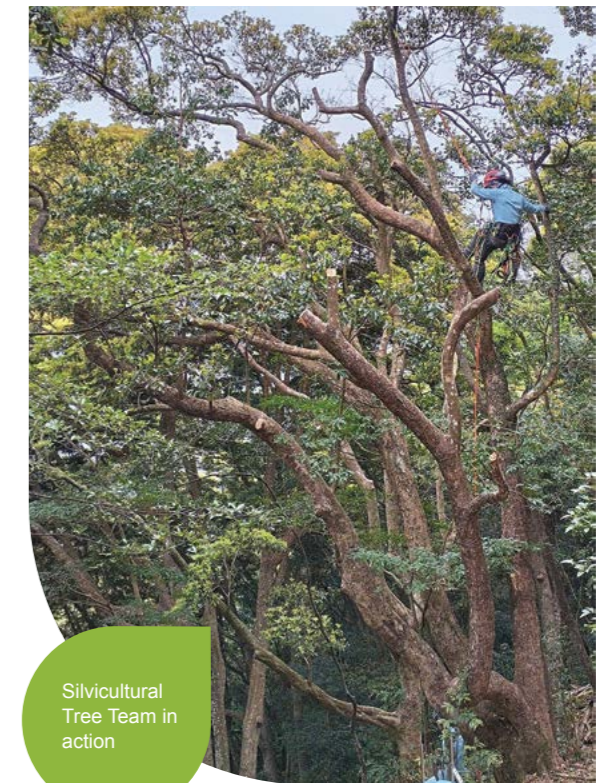
Not only are these activities an opportunity to connect with our natural environment, they also provide a chance to build a wider community of like-minded people. In October, KFBG joined forces with CLP in pledging to restore 10 ha of diverse, native woodland over the coming 10 years by planting and nurturing a further 25,000 trees on our site. This new phase of our forest restoration programme was formally launched in early February 2023 with a kick-off event to mark the planting of the first 10 trees. Personnel from both organisations came together to dig, plant and erect tree guards around a selection of rare trees raised in our Native Tree Nursery. With speeches from Acting Executive Director Gary Ades, Head of Flora Conservation Department Stephan Gale and CLP's Chief Strategy, Sustainability and Governance Officer David Simmonds, our organisations were unified in reflection on a shared heritage and anticipation for the recovery of Hong Kong's lost tropical forests.

After the event itself, our staff planted a further 50-plus species to immediately enhance diversity and continue the restoration effort. Several wonderful and very rare species were planted, including *Rhododendron hongkongense*, *Rhodoleia championii*, *Illicium leiophyllum*, *Corylopsis multiflora*, *Podocarpus neriifolius* and *Castanopsis kawakamii*. Large-scale planting is due to commence in June 2023.

Flora Conservation Department also hosted two corporate groups in December and February for activities focusing on soil restoration. And to promote the beauty of native plants amongst the public at large, we launched a new plant sales area outside KFBG's Farm Shop in August, featuring a range of plants found naturally in Hong Kong and the South China region, all of them raised in KFBG's nurseries.



Passiflora cochinchinensis



Silvicultural Tree Team in action



Freshly mulched slope



Plant sales at Farm Shop



CLP kick-off event

Enhancing our infrastructure

Progress was made on updating existing facilities in 2022, along with the development of new structures and amenities. We executed cleaning of the trails and furniture at the Lower Farm and renovated various pavilions. Slope maintenance and stabilisation works have continued as planned, while a new cycle of the engineering investigation project was implemented. The tender for the new Jockey Club Nature Conservation Centre (JCNCC) superstructure was awarded, and work started at the end of 2022. We are targeting to move into our new office building in mid-2024.



Slope of road below Kadoorie Brothers Memorial Pavilion



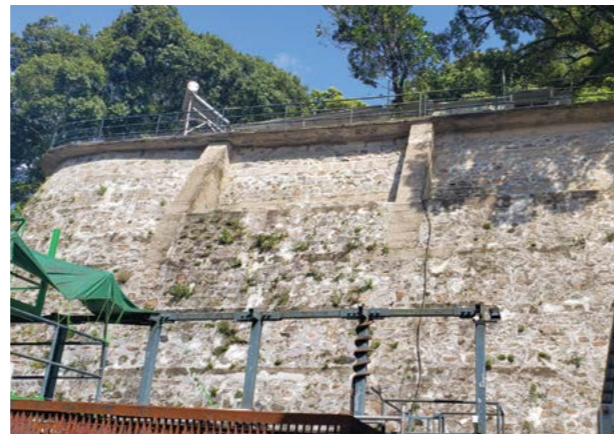
Art House



Unregistered slope in Orchid Haven near the Entrance



Walter Kerr Garden



Slope 7NW-C/R38 below Vet Hospital and WARC facilities



Golden Pavilion



Pavilion at Art House



T. S. Woo Memorial Pavilion

REGENERATIVE AGRICULTURE

Inheriting the direction of the Sustainable Living and Agriculture Department, the Regenerative Agriculture Department (RAD) was officially formed in January 2023 to focus on and continue developing the sustainable agricultural operation and increasing public awareness of local agriculture. Based around the agricultural production projects of the farm, RAD continues to carry out agricultural project demonstrations, support local farmers, and perform external publicity and educational promotion works.

Agriculture demonstrations

Along with the natural environment at KFBG, RAD continues to develop diversified crop production strategies. At the plantations located on the hillside at an altitude of about 400m, we have 20 years' experience of green tea planting and production, while the coffee trees were introduced in the past 10 years. Dried green tea is packed and sold at our Farm Shop and Co-op Shop at Green Hub. You can taste our farm coffee at Eat Well Café at KFBG and Green Hub's Eat Well Canteen. A total of 35 types of fruit trees are scattered in different locations across our terrace orchards. Though some fruit and chrysanthemum production has been affected by foraging macaque and heavy rains, we still have 20 types of fruit for sale at the Farm Shop. In the lower farmland areas, the harvesting of vegetables, herbs and honey has been steadily maintained.

RAD has maintained the quantity of chickens at around 2,000 in accordance with the Animal Exhibition Licence requirements maintained by the Agriculture, Fisheries and Conservation Department of the Hong Kong government. Four species of chicken, namely Yellow Wai Chow, White Wai Chow, New Hampshire, and Pak Ngau Shek are being reared.

Egg production and aquaponics have been operated steadily throughout the year. Our farm eggs are always an attractive produce item. The piggery, as usual, attracted most of the visitors during the year. Since April 2022, our one remaining pig ambassador, Bao, has been performing his daily duty of welcoming visitors.

Organic resource recovery is a key task at RAD. Collection of animal manure and plant waste for compost production and the wetland wastewater treatment system maintained normal operations in 2022. Other than processing organic waste from our farm, since February 2023 we have been accepting wood yard waste from Y Park, a yard waste recycling centre established by the Environmental Protection Department of the Hong Kong government. The waste is used for multiple purposes, such as compost-making, farmland mulching and chicken-house bedding.



Coffee plants and beans



One of our New Hampshire species of chicken



Our remaining pig ambassador, Bao

Alternative sales platform for local farm produce

Established as a sales platform to support local organic farmers, our Central Farmers' Market at Star Ferry Central Pier 7 on Hong Kong island has now been running for 15 years. In this past year, the market has been held 46 times, with around 10 local farms selling 21 tonnes of farm crops, while nine local craft-makers, social enterprises and organisations provided more than 50 types of processed farm products and environmental products. To supplement the fixed-point sales limitation, 20 rounds of the Community Supported Agriculture (CSA) scheme in the form of online purchases were conducted from January to April 2022 and from November 2022 to March 2023. This alternative channel links local farmers with consumers; it has now completed its third year of operation, which was initiated during the Covid pandemic. In the past year, a total of 956 kg of farm products was delivered from the farm directly to customers. In the coming year, we will continue our Central Farmers' Market and CSA scheme to support local agriculture.

Agricultural policy

RAD regularly makes recommendations on various Hong Kong government policy projects related to local agriculture. During the year, we participated in several on-site investigations and discussions related to the establishment of an agricultural park. In April 2022, our senior agriculture officer, Yip Tsz Lam, attended the Agricultural Park Phase I site meeting, and in September, he and our KCC team guided members from the Hong Kong Institute of Architects on a visit to the main farmland zones in Ta Kwu Ling, northeast New Territories.



Central Farmers' Market at Central Star Ferry No.7 Pier takes place almost every Sunday



The Community Supported Agriculture scheme provides another platform to support local organic farmers



Participants on the certificate course in sustainable communities - sustainable agriculture

Farming courses and promotion of community farming

Farming courses and workshops

Because of the fluctuating pandemic prevention policies in 2022, our external activities adopted a flexible approach. Regular onsite farming courses for the public included introductory courses on "Sustainable Agriculture for City Farmers" in March and April, "Planting Vegetables in Synchrony with the Seasons of the Year" in April and May, and a "Beekeeping" training course in June. Three "Farmers' Reskilling" online workshops were held from July to September, targeting local farmers with considerable planting experience.

Co-organised courses with universities

From February to June 2022, and from November 2022 to January 2023, RAD cooperated with the Academy for Sustainable Communities of the University of Hong Kong to hold a certificate course in Sustainable Communities – Sustainable Agriculture. A total of 45 people from diverse backgrounds participated. In addition, nine online workshops were held for a total of 85 university students from various institutions.

Community farming promotions

Training the Planting Ambassador in the Community Garden course from September to November was conducted for the Society for Community Organisation (SoCO) under the Transitional Social Housing Service: Ying Wa Module Community project. Over 50 residents received advice on garden design and undertook a planting course, with training for site instructors also provided.

In February 2023, our senior agriculture officer, Yip Tsz Lam, and agriculture officer Emily Kong and assistant agriculture officer Johnson Sham were interviewed by *Ming Pao Weekly* on the topic of local chicken eggs and sustainable concepts on livestock farming. In March 2023, Yip Tsz Lam took part in a podcast interview on the RTHK radio programme *Climate Watcher* on the topic of sustainable farming development in Hong Kong.



Transitional social housing residents are happy to learn about planting and garden design on the course run in conjunction with SoCO



Getting close to nature at the introductory course on sustainable agriculture for city farmers

EVOLVING ORGANISATION

KFBG believes people are an indispensable part of nature. With our mission and vision to develop a sustainable, harmonic and respectful relationship with nature, in the past year the organisation has striven to engage employees in a variety of aspects, starting from redefining the General Administration Department and splitting the department into three: Facilities Department (which existed already, but it has been enlarged and further enhanced), Finance Department, and People and Culture Department (P&C). This was conducted with the aim of enabling these functions to be more focused on their role of supporting the core functions of KFBG, namely Nature Conservation, Holistic Education and Sustainable Living. The department name, "People & Culture", is self-explanatory to show the determination of the organisation to illustrate the fact that everyone working in KFBG, and their relations with KFBG, are equally as important as the services and work done by the core departments in nature and the community.

Complementing this structural change, in the second half of 2022, heads were appointed for each of the three new departments: Head of the new Facilities Department, Finance Director, and Director, P&C. The timing of these was in line with other key management movements, namely the appointments of new heads of Flora Conservation, Education, and Communication and Partnerships respectively. This demonstrates a proactive approach on capacity building of different departments for KFBG's long-term development.

Further to refining the focus, the P&C Department launched KFBG's first employee survey in order to further understand its people in terms of four main aspects, namely Quality of Work, Relations at Work, Training and Development, and Communications and engagement with the Management Team, to obtain feedback so as to construct a people strategy with action-based improvements.



New joining employees learn the work of KFBG by seeing and sharing during Staff Orientation



'Learning' is on the menu at lunchtime, as internal and external speakers share their expertise with staff

The improvements comprise a series of staff engagement activities, including Lunch & Learn sessions. Held twice a month, these sessions facilitate cross-department understanding and lateral learning by inviting internal experts or external speakers to share ideas relating to nature conservation, sustainable living, holistic education and personal well-being as well as company developments. The new-joining staff orientation programme has been reviewed and restructured to nurture the purpose of working at KFBG and to enrich the understanding of the work done here through experiential touring.

A first-ever Vibrant Culture Forum has been set up at KFBG involving representatives from across departments, led by the P&C Department, to conduct discussions on various people issues, with the intent of co-creating an energetic culture designed to bring forward tangible suggestions to improve the daily work environment.

The safety and health of employees remains a top priority for the P&C Department, and Occupational Safety- and Health-related talks and workshops for Workplace Safety, Fire Risk and First Aid were resumed swiftly, following two years' suspension because of the pandemic.

The P&C Department also pays attention to people retention. On this account, long service awards were presented at the Spring Dinner in February 2023 as a token of gratitude to five employees who have each worked at KFBG for more than 20 years of service.

People movements became more active with relief from the impact of Covid-19. In the fiscal year 2022-2023, we recruited 103 staff, while we lost 71 and had eight retirements. The P&C Department assisted in driving a net growth of 24 in staff numbers, contributing to a total employee number of 236.5 as of 31 March 2023.



A good time was had by all as employees gathered to celebrate together at the Annual Dinner in spring 2023



Hong Kong Fire Services Department conducts a fire and safety talk for KFBG staff

In response to the evolving needs of our organisation and the dynamic landscape of public engagement, the Partnerships Department was renamed Communication and Partnerships Department (CPAR). The department has transitioned from being solely focused on partnerships to adopting a broader scope that encompasses communication and partnership activities. This strategic shift recognises the crucial role that effective communication plays in raising awareness and engaging with both the general public and corporate entities.

Effective Communications Strategy

CPAR disseminates monthly press releases to media members to update them regularly on the happenings at KFBG with a new approach. Since images help drive interest, our monthly press releases now include images, videos and other multimedia, which means we can convey our messages and happenings in more interesting ways.

As a result, during the reporting period we generated 848 media stories with a media value of over HK\$35 million during the reporting period.*

Our new digital strategy has proven to be on the right track: our organic reach on Facebook and Instagram has increased by 150% from 1.5 million in 2021 to 2.2 million in 2022, and page and profile visits have increased by 25% from 53,537 in 2021 to 71,383 in the reporting period of 2022.

** Media value generated, measured by advertising dollars, refers to the estimated monetary value of media exposure obtained through advertising efforts. It represents the worth or equivalent cost of the media coverage or visibility gained through advertising campaigns. Media value is often calculated by comparing the actual cost of purchasing equivalent advertising space or time with the estimated value of the earned media exposure. This approach helps in evaluating the economic impact and return on investment (ROI) of communications activities, as it provides a tangible measure of the financial value generated through media exposure.*

Bringing KFBG closer to the community

Extracurricular Activities Expo – August 2022

With the objective of promoting KFBG as an education destination outside the classroom, we participated as an exhibitor at the Extracurricular Activities Expo at Hong Kong Convention and Exhibition Centre from 25-28 August 2022. The target audience of this Expo were teachers and parents looking for extracurricular activities for primary students.

To promote the conservation work of KFBG, we developed an interactive display backdrop with magnetic animal props to show the relationship between plants and animals in terms of food chain, seed dispersers, and habitat.



KFBG's booth at Extracurricular Activities Expo at Hong Kong Convention and Exhibition Centre in August 2022

Charity Marketplace – Art and Craft at Lee Tung – September 2022

To promote the upgraded Farm Shop as well as reiterating KFBG's contribution to orchid conservation, we participated as an exhibitor at the Charity Marketplace – Art and Craft at Lee Tung organised by the Rotary Club from 3-4 September 2022. The event was scheduled a week prior to Mid-Autumn Festival with the aim of engaging shoppers at Lee Tung Avenue, Wanchai, with booths selling festive-themed products as well as conducting interactive workshops.



KFBG's booth at Charity Marketplace – Art and Craft at Lee Tung in September 2022

Annual Fundraising Event – December 2022

Our annual fundraising event Nature Hikeathon and Treasure Hunt @KFBG debuted in 2021, and our second edition took place on 10-11 December 2022. The Hikeathon offered two routes for participants to select: the Classic Route of 8km and the Leisure Route of 4km with information boards along the route to educate participants on our conservation work. For the Treasure Hunt we extended the area to Orchid Haven with 25 checkpoints highlighting educational elements related to KFBG. On both days, a Nature Bazaar was organised at Sunshine Hall with 13 participating organisations, including local produce. Guided tours of the apiary, tree climbing, animal encounters and discovery tables were organised for participants to learn and gain special experience at KFBG.

The number of participants dropped 20% from 969 in 2021 to 777 in 2022, but we reduced cost substantially as well, resulting in 28% growth in net amount raised, from HKD 439,715 in 2021 to HKD 562,735 in 2022.

In order to promote our annual fundraising event to people from all walks of life and to promote the inclusive image of KFBG, CPAR invited renowned sports KOLs, including professional snooker player and three-time ranking event winner Marco Fu, Hong Kong amputee “Blade Runner” Fung Kam Hung, and visually impaired marathon runner Gary Leung to do promotional videos that were posted on our event mini-site, Facebook and Instagram.



The kick-off ceremony of our annual fundraising event Nature Hikeathon and Treasure Hunt @KFBG in December 2022



Participants start their 8km Hikeathon



Participants challenge their knowledge of native flora and fauna at checkpoint of Treasure Hunt

FINANCE



The financial performance and position of KFBG has been prepared in a true and fair view in accordance with Hong Kong Financial Reporting Standards ("HKFRSs") issued by the Hong Kong Institute of Certified Public Accountants ("HKICPA"). In all other respects, the financial information has been properly prepared in compliance with the KFBG governance and internal control to prevent and detect fraud and error and also safeguard the assets of the Farm.

Financial figures (excluding depreciation)

Expenditure (HK\$) (see Breakdown 3)	*Year Ended 31.3.22 (audited)	**Year Ended 31.3.23 (unaudited)
Capital	39,886,310	17,584,544
Operating	110,952,338	118,982,626
Total	150,838,648	136,567,170
Income (HK\$)	*Year Ended 31.3.22 (audited)	**Year Ended 31.3.23 (unaudited)
The New Kadoorie Foundation	100,941,139	109,000,000
Green Hub	4,187,998	5,546,000
Farm sales income (shop sales, floristic produce, fruits & vegetables, tea and eggs produce)	1,355,046	1,573,000
Government and other funding (see below breakdown 1 & 2)	21,540,510	8,780,361
Entrance fees and shuttle bus	2,346,224	4,089,000
Workshops, programmes, course income and guided tour fees, etc	1,981,746	1,750,000
Service provision of snake rescue & Golden Coin Turtles programmes, etc	1,991,034	1,639,000
Donations	1,140,210	1,468,000
Fund-raising events	919,898	960,000
Others	934,567***	620,000
Total	137,338,372	135,425,361

Income has decreased by HK\$1.9M as compared to year 2022, mainly due to lower HKJC funding on the lower progress of the new Nature Conservation Building, which was affected by Covid-19, and offset by the increase in the HKSAR employment subsidy scheme and external income generating from the farm shops, entrance fee and shuttle bus, among others.

*From audited accounts (expenditure includes expenses accrued and not yet settled).

**From management accounts (expenditure includes commitments accrued and not yet settled).

Note: Expenditure includes the commitments of previous years which are settled during the year.

***Including payment of provision of service to conduct an assessment of threatened status of orchids of Hong Kong 560K, vehicle trade-in of 154K, insurance claims 56K, etc.

Breakdown 1 - Government funding

Government Funding	Year ended 31.3.22	Utilised/will utilise by KFBG to provide:	Year ended 31.3.23	Utilised/will utilise by KFBG to provide:
HKSAR gov't (anti-epidemic fund)	330,000	Green Hub	1,000,000	Green Hub
HKSAR gov't (anti-epidemic fund)	10,000	Chang Lin exhibition	20,000	Chang Lin exhibition
HKSAR gov't (AFCD) subvention	1,000,000	Wildlife Animal Rescue Centre	1,000,000	Wildlife Animal Rescue Centre
HKSAR gov't (employment subsidy scheme)	0	Staff costs	4,121,600	Staff costs
Development Bureau (The Green Hub)	2,012,982	Old Tai Po Police Station revitalisation	170,900	Old Tai Po Police Station revitalisation
HKSAR gov't (SIE fund)	0		92,474	Forest School programme

Breakdown 2 - Other funding

Other Funding	Year ended 31.3.22	Utilised/will utilise by KFBG to provide:	Year ended 31.3.23	Utilised/will utilise by KFBG to provide:
Hong Kong Jockey Club Charities Trust	13,280,525	Jockey Club Nature Conservation Centre	493,036	Jockey Club Nature Conservation Centre
Highland Dragon Ltd	2,000,000	Forest restoration and gibbon exhibition	0	
Knorr-Bremse Global Care Asia Pacific Ltd	170,000	Pilot Forest School project	250,000	Gaoligong Gibbon Summer Camp project
MaxiPro (Asia) Ltd	300,000	Gibbon exhibition	0	
Jebsen Insurance Service Ltd	500,000	For KFBG operation	0	
MF Jebsen Nature Conservation Foundation Ltd	100,000	For KFBG operation	0	
Hong Kong Jockey Club Disaster Preparedness & Response Institute	308,300	Community education programme on disaster resilience	0	
Lang Qing Charity Ltd	209,000	Toward carbon neutral project	150,000	Toward carbon neutral project
Bank of China	1,200,000	Carbon neutral challenge project	0	
IUCN	0		78,354	Cao-vit Gibbon conservation
CLP Holdings Limited	0	-	1,280,000	Ecological restoration of tropical forest
Mangrove Foundation	0	-	51,565	Greater Bay Area otter survey project
Others	119,703		72,432	

Breakdown 3 - Expenditures (capital and operating)

	Year ended 31.3.22 (audited)	Year ended 31.3.23 (unaudited)
Capital		
Kadoorie Conservation China	56,525	93,544
General Administration	1,773,127	489,000
Education	322,135	757,500
Facilities	9,359,080	7,231,000
Fauna Conservation	1,727,997	3,368,000
Flora Conservation	1,668,999	1,342,000
Sustainable Living & Agriculture	918,728	837,000
Partnerships	0	32,000
Green Hub	1,685,508	70,500
Lower Farm upgrade	5,426,420	522,000
Jockey Club Nature Conservation Centre	16,947,791	2,842,000
Total	39,886,310	17,584,544
Operating		
Kadoorie Conservation China	5,729,883	4,322,630
KFBG Mainland China	1,344,232	1,304,933
General Administration	19,989,092	19,010,259
Education	10,074,700	10,476,246
Facilities	8,934,022	12,096,849
Fauna Conservation	13,910,793	14,337,189
Flora Conservation	25,941,543	26,584,885
Sustainable Living & Agriculture	15,408,825	20,906,555
Partnerships	3,229,435	3,554,080
Green Hub	6,389,813	6,389,000
Total	110,952,338	118,982,626
Grand Total	150,838,648	136,567,170

Note: Green Hub's expenditures were covered by its income and the government's funding upon claims made and government approval.

KFBG ORGANISATION CHART 22-23



BOARD MEMBERS

Andrew McAulay
Chairperson

Andrew Brandler

Christine Chau

Daniel R. Bradshaw

Deborah McAulay

Ruy Barretto, S.C.

Wai Chi Ho

MANAGEMENT TEAM

Wander Meijer
Executive Director

Heads of Departments

Josephine Woo – *Education*

Dr. Gary Ades – *Fauna Conservation*

Dr. Stephan Gale – *Flora Conservation*

Nelson Ho – *Facilities*

Vivian Cheung – *Finance*

Iris Pang – *People and Culture*

Idy Wong – *Sustainable Living*

Maria Lai – *Communication and Partnerships*

Karen Kwok/Yip Tsz Lam – *Regenerative Agriculture*

Dr. Bosco Chan
(until September 2022)

Michelle Wong/Philip Lo/
Yang Jianhuan
(Steering Committee since October 2022)

NUMBER OF STAFF AS OF 31 MARCH 2023

	Number of Staff
Executive Director's Office	3
Holistic Education	15
Facilities	43
Fauna Conservation	31.5
Flora Conservation	60
Finance	5
People and Culture	3
Kadoorie Conservation China	8
Communication and Partnerships	4
Sustainable Living	21
Regenerative Agriculture	43
Total	236.5

APPENDIX 1

KFBG Activities Aimed at Building Capacity in Community Organisations and Partnerships for Sustainable Living

Title	Number of Participants	Organiser / Collaborator	Audience	Date	Format
"Organic and Sustainable Farming – Theories and Techniques" Workshop	20	SLA* / HKU General Education	University students	26/2/2022	Online
"Grow Food at Home Challenge" Workshop	25	SLA / HKU General Education	University students	2/3/2022	Online
"Planting Vegetables in synchrony with the seasons" Course	14	SLA	Public	30/4, 7/5/2022	Onsite
Certificate course in Sustainable Communities – Sustainable Agriculture	25	SLA / HKU SPACE-Academy for Sustainable Communities	University students	5/2, 12/2, 13/2, 26/2, 24/4, 1/5, 14/5, 5/6/2022	Online/ Onsite
Bee keeping course	16	SLA	Public	18 & 19/6/2022	Onsite
Farmer Reskilling workshop – Farming technique	22	SLA	Local Farmers	16/7/2022	Online
Farmer Reskilling workshop – Fruit Growing	26	SLA	Local Farmers	6/8/2022	Online
Farmer Reskilling workshop – Processing agricultural products	23	SLA	Local Farmers	3/9/2022	Online
Sustainable Urban Farming Workshop	20	SLA / HKU CEDARS-GE Team	University students	23/9, 7/10, 21/10 & 4/11/2022	Onsite
Urban Farming in Tenacity Residence	48	SLA / The Society for Community Organization (SoCO)	Public	10/9, 24/9, 8/10, 22/10, 5/11 & 26/11/2022	Onsite
Made in Lantau. Call for community builders	15	SLA / Land Education Foundation	Public	11 & 12/11/2022	Online
Certificate course in Sustainable Communities – Sustainable Agriculture	20	SLA / HKU SPACE-Academy for Sustainable Communities	University students	17, 24/11, 3, 4, 17, 18/12/2022, 8 & 26/1/2023	Onsite
Training the Planting Ambassador in the Community Garden	50	RAD / The Society for Community Organization (SoCO)	Public	4, 18, 25/3/2023	Onsite
Sustainable Urban Farming Workshop	20	RAD / HKU CEDARS-GE Team	University students	3, 17, 31/3/2023	Onsite
Introductory Courses on Sustainable Agriculture for City Farmers	27	RAD	Public	25/3/2023	Onsite

Summary of KFBG's Major Agricultural Produce from 1 April 2022 to 31 March 2023

Produce	Kg	Pieces	Tonnes
Vegetables	17,960		
Fruit	3,011		
Bokashi	141		
Honey	59		
Fish	47		
Chrysanthemum	6		
Tea	30		
Coffee	5		
Roselle	5		
Eggs		134,638	
Compost			36

* Sustainable Living and Agriculture Department was restructured and renamed Sustainable Living Department and Regenerative Agriculture Department on 1 January 2023.

APPENDIX 2

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