

Hon. John LEE Ka-chiu, GBM SBS PDSM PMSM
Chief Executive
Hong Kong Special Administrative Region
Tamar, Hong Kong

Dear Chief Executive,

Submission on the 2022 Policy Address Public Consultation

Since 1983, Friends of the Earth (HK) (“FoE (HK)”) has led the environmental dialogue by engaging government, business and community with equitable solutions to protect our local and regional environment. With the vision to promote a healthy and sustainable environment for all, we are pleased to enclose our submission on this term’s policy address.

In the latest update, the Intergovernmental Panel on Climate Change warned that the world is at a crossroads. We must peak carbon emissions by 2025 and halve emissions by 2030, if we are to limit global warming to around 1.5°C. As an international and leading city in the Greater Bay Area, Hong Kong must lead by example and accelerate the transition to net-zero.

In addition to climate change, the Hong Kong government need to move forward on air quality, circular economy, sustainable development, and green finance. Our submission is as attached and makes overarching recommendations on the aforementioned aspects.

We are ready to engage and start dialogue with the relevant government bureaux and departments. If there are any queries on the submission, please contact me at jeffreyhung@foe.org.hk.

Yours Sincerely,



Dr Jeffrey Hung
Chief Executive Officer
Friends of the Earth (HK)

Climate Change

Decarbonising the fuel mix

Hong Kong's carbon emissions saw a marked drop from 2019 as a result of increasing the share of natural gas in the energy fuel mix.¹ Switching from coal to natural gas is an improvement, but as a bridge fuel, it only creates a false sense of security and serves to delay needed climate actions. Natural gas is still a fossil fuel; and methane leakages during the extraction, processing, transportation, and storage of natural gas can contribute to air pollution and may offset the direct benefits from switching.²

Decarbonising the electricity grid with renewable energy continues to be the most direct and effective means of carbon reduction. Locally, Hong Kong can better realise the potential of solar power by maximising the use of available space within the developed environment for installing solar panels (i.e., walkways, sports facilities, warehouses, etc.). Although both power companies have announced offshore wind farm plans, offshore wind energy is still woefully underutilised.³

Beyond renewable energy, developing energy carriers like green hydrogen or green ammonia can support industries and heavy transport—both of which are more difficult to decarbonise. The EU and Japan have already laid out roadmaps for green hydrogen and/or green ammonia development.^{4 5} China is building the world's largest green hydrogen factory.⁶

Hong Kong has to lead and invest in its rich renewable energy potential and collaborate with the Greater Bay Area and neighbours to decarbonise the energy grid. Hong Kong also has to formulate a roadmap for establishing a stable supply chain for green hydrogen and/or green ammonia.

Reducing electricity demand

The building sector is largest electricity user in Hong Kong—with air conditioning taking the lion's share, followed by lighting.⁷ Global warming is expected to further drive air conditioning

¹ [GovHK, Hong Kong greenhouse gas emission inventory for 2020 released](#)

² [Zhang *et al.*, Quantifying methane emissions from the largest oil-producing basin in the United States from space](#)

³ [Gao *et al.*, Analysis of Hong Kong's Wind Energy: Power Potential, Development Constraints, and Experiences from Other Countries for Local Wind Energy Promotion Strategies](#)

⁴ [Clean Hydrogen Joint Undertaking, Hydrogen Roadmap Europe](#)

⁵ [Ministry of Economy, Trade and Industry, Green Growth Strategy Through Achieving Carbon Neutrality in 2050](#)

⁶ [SCMP, China building world's largest 'green hydrogen' factory](#)

⁷ [EMSD, Hong Kong Energy End-use Data 2021](#)

use, but good practices in building design can help to optimise energy use.⁸ Reducing energy demand has the added benefit of making the renewable energy transition easier.

Hong Kong has to continually tighten the Building Energy Code for new buildings and support mandatory retrofits of existing building via government incentives and green financing.

Pricing carbon emissions

Carbon-emitting activities do not yet bear their true cost; the cost of climate change is instead socialised and borne by the rest of the society. Fossil fuels are estimated to be supported by US\$5.9 trillion in explicit and implicit subsidies.⁹

As of the end of 2021, 47 countries, provinces and cities have embraced some form of carbon pricing.¹⁰ China marked the one-year anniversary for its national carbon trading scheme in July.¹¹

Hong Kong has to put a price on carbon through carbon tax or emission trade to reflect the polluter pays principle and to drive the adoption of low-carbon solutions.

Promoting sustainable consumption

At around 4.5 tonnes of carbon per person, Hong Kong's per capita greenhouse gas emission is close to the world average;¹² but a significant portion of the city's actual emission is hidden in the consumption of various goods and services. Under consumption-based accounting, Hong Kong's per capita footprint is 14.5 tonnes, closer to that of heavy emitters like Australia and Canada.¹³ Our consumption-based emissions come substantially from the consumption of meat and dairy products. Pursuing healthier, more plant-based diets alone can help cut emissions drastically.¹⁴ Avoiding excessive consumption as well as choosing low-mileage, low-carbon products will also greatly help reduce personal emissions.

Hong Kong has to address carbon emissions arising from consumption and dietary patterns and promote responsible consumption and healthier diets to truly decarbonise the city.

⁸ [Yu et al., Revealing the Impacts of Passive Cooling Techniques on Building Energy Performance: A Residential Case in Hong Kong](#)

⁹ [IMF, Fossil Fuel Subsidies](#)

¹⁰ [I4CE, Global Carbon Accounts in 2021](#)

¹¹ [SCMP, China's national carbon trading scheme marks one-year anniversary, with analysts expecting stricter regulation and data monitoring ahead](#)

¹² [Statista, Average per capita carbon dioxide emissions worldwide from 1960 to 2020](#)

¹³ [Our World in Data, Annual consumption-based CO₂ emissions per capita](#)

¹⁴ [Yau Y.Y. et al., Impact of cutting meat intake on hidden greenhouse gas emissions in an import-reliant city](#)

Enhancing climate change education

Whether it is the policymakers writing the laws and regulations, the institutions adapting to new environmental policies, or people adopting sustainable lifestyles, their effectiveness depends on the society's acknowledgement of climate change. Climate education however is still lacking in Hong Kong's school curriculums; teachers are also unfamiliar with the concept of climate change. Outreach activities from NGOs cannot replace the systematic and comprehensive planning and implementation of climate education in schools.

Hong Kong has to provide the appropriate level of resource and training to school educators and update the school curricula to include information on climate change and low-carbon transition.

Strengthening climate adaptation

The weather has gotten more extreme under climate change. The world saw more than 50 major flood events in 2021, resulting in over US\$80 billion in economic losses—China alone accounted for US\$25 billion.¹⁵ Hong Kong too is still threatened by heavy rainstorms and flooding despite decades of infrastructure improvements.¹⁶ In particular, the government is developing a new development area in the northern New Territories—an area known to have high flood risks.¹⁷

At the other extreme, heat waves have gotten more frequent. In June and July 2022, persistent high temperatures led to widespread droughts and wildfires across the globe.¹⁸ While Hong Kong was fortuitous to experience neither events, multiple hot weather-related records were broken.¹⁹

Hong Kong has to better help its citizen adapt to the impacts of climate change, whether it is strengthening coastal infrastructure, adopting sponge city measures or setting legal limits on maximum temperatures for when it is safe to work.

Air Quality

Accelerating the electric vehicle transition

Roadside nitrogen dioxide levels in Hong Kong consistently exceeds the government's air quality objectives.²⁰ The city's ozone level has also been rising. Transitioning to electric vehicles

¹⁵ [Swiss Re, Natural catastrophes in 2021: the floodgates are open](#)

¹⁶ [SCMP, Hong Kong's first black rainstorm warning of 2021 leads to schools, Covid-19 jobs suspension, while Lantau landslide causes delays for hundreds](#)

¹⁷ [HKO, Special Announcement on Flooding in the northern New Territories](#)

¹⁸ [NASA Earth Observatory, Heatwaves and Fires Scorch Europe, Africa, and Asia](#)

¹⁹ [HKO, July 2022 is the hottest month in Hong Kong](#)

²⁰ [EPD, Air Quality in Hong Kong 2020](#)

will clean up the roadside air significantly and reduce carbon emissions from the use of petrol and diesel fuel. While Hong Kong government has pledged to have no vehicular emissions city-wide by 2050, a number of international cities are committed to ensuring major areas will be fossil fuel-free by 2030.²¹ The government itself should lead by example by electrifying its vehicle fleet.

Hong Kong has to set more concrete interim targets to better reflect the government's ambitions to green the transport network and attain the World Health Organisation's air quality guidelines.

Implementing electronic road pricing (ERP)

The electric vehicle transition needs to be supported with financial disincentives and measures to tackle traffic congestion from private cars—electric or not. The concept of ERP was first introduced to Hong Kong in 1980s. Although Singapore, London, and other cities have demonstrated the effectiveness of congestion pricing in reducing traffic volume and improving traffic speeds,²² implementation of a local ERP scheme continues to dawdle.

Hong Kong has to establish ERP in central business districts and busy roads to encourage motorists to adopt sustainable modes of transport.

Becoming pedestrian-friendly

Walking and cycling are healthy, low-carbon modes of transport that help reduce noise and air pollution, enhance pedestrian safety, promote better health, facilitate social, cultural and tourism activities, and more. Although Hong Kong is often regarded as a very walkable city, the walking experience is not necessarily comfortable (i.e., poor use of green space, lack of seating) or accessible (i.e., uneven, narrow paths, excessive use of pedestrian guardrails).²³ Further, cycling is still regarded as a leisure and recreational activity at the urban planning and policymaking level in Hong Kong.²⁴ Many cities in China are introducing cycling lanes to promote greener lifestyles.²⁵

Hong Kong has to enable walking and cycling as viable modes of transport to foster a more pedestrian and cycling-friendly, low-carbon city.

²¹ [C40 Cities, Green and Healthy Streets](#)

²² [Tri-State Transportation Campaign, Road Pricing in London, Stockholm and Singapore](#)

²³ [Civic Exchange, Measuring and Improving Walkability in Hong Kong](#)

²⁴ [SCMP, Bicycles still discouraged in Hong Kong urban areas due to 'high traffic density'](#)

²⁵ [China Daily, Beijing cyclists take to the road in numbers](#)

Circular Economy

Expanding producer responsibility

The government has recently started pushing for producer responsibility on various plastic items. While the move is welcomed, we remind that tableware and plastic beverage containers only account for a small portion of waste generated. Gaps in the proposed scheme may inadvertently aid in a shift towards potentially less-recyclable packaging formats. Furthermore, food waste still makes up for around 30% of municipal solid waste entering the landfills,²⁶ and packaging waste in general is a growing issue.

Effective producer responsibility schemes need to have review mechanisms in place to adjust the charging level as necessary to meet the reduction target. They should also encourage stakeholders to pursue reduction-based solutions.

Hong Kong has to expand producer responsibility at a faster pace to cover all single-use beverage packaging formats, other packaging waste, and food waste to tackle the city's ongoing waste issues.

Tackling urban yard waste

Yard waste, such as grass clippings, fallen leaves, and pruned branches, is fully biodegradable; yet, just around 2% is recycled in Hong Kong.²⁷ Although the yard waste recycling centre Y·PARK entered into operation last year, it is only capable of handling a small portion of the yard waste the city produces and accepts certain types of yard waste (i.e., tree trunks and branches).

Hong Kong has to address urban yard waste by requiring onsite composting for urban public parks and gardens (where space allows), setting up wood shredders on vacant government sites to be shared by local districts, and providing subsidies for purchasing composting equipment.

Supporting the recycling industry

Hong Kong cannot rely solely on waste treatment facilities to handle our waste. The city deserves an integrated and holistic waste management system that includes efficient waste collection, separation and recycling.

Hong Kong has to modernise the recycling industry and collaborate with the Greater Bay Area to process recyclables and put recycled materials back into the value chain again.

²⁶ [EPD, Monitoring of Solid Waste in Hong Kong Waste Statistics for 2020](#)

²⁷ [EPD, Monitoring of Solid Waste in Hong Kong Waste Statistics for 2020](#)

Sustainable Development

Enhancing urban forests and trees

Urban forests and trees help improve the city by mitigating urban heat island, sequestering carbon, bettering physical and psychological health, and so much more.²⁸ Despite so, they are often taken for granted and overlooked—being barely mentioned in the government’s plan to improve the liveability of Hong Kong.²⁹ The current decentralised tree management hierarchy do not contribute to the effective regulation and management of trees either.³⁰

The Food and Agriculture Organisation has called upon countries and cities in the Asia-Pacific region to recognise the role that urban forests and trees have in achieving the Sustainable Development Goals and the wide range of benefits they bring to urban communities under the Seoul Action Plan.³¹

The government should use more native plant species in government projects, collaborating with professionals to select species which can fulfil aesthetic and functional needs in urban green spaces.

Hong Kong has to realise the importance of urban forests and trees in the sustainable development of a liveable city, clearly defining the role and function of trees as green infrastructure and streamlining the tree management hierarchy.

Safeguarding our country parks

We cannot stress enough that Hong Kong’s green space needs to be protected. The government must dismiss any notions to encroach into country park space for housing development. Practically, there are sufficient brownfield lands that are currently poorly-utilised and should be resumed and converted instead. Politically, the Land Supply Task Force consultation already demonstrated a lack of support for developing country parks—“fringes” or no.

Hong Kong has to safeguard country parks, recognising that they do not only serve to conserve nature and protect the city’s watersheds, but also for pragmatic considerations of providing a natural carbon sink and a free venue for recreation and outdoor education to the community.

²⁸ [Wolf et al., Urban Trees and Human Health: A Scoping Review](#)

²⁹ [PlanD, Hong Kong 2030+: Towards a Planning Vision and Strategy Transcending 2030](#)

³⁰ [Research Office Legislative Council Secretariat: Tree management policies in selected places](#)

³¹ [FAO, Seoul Action Plan for the development of Urban Forestry in the Asia-Pacific Region](#)

Improving environmental assessments

Environmental impact assessment is an important process to avoid and reduce the impact of projects to the environment and the local community. Although the Environmental Impact Assessment Ordinance (EIAO) has been in force since 1998, it has not been improved upon significantly in over 20 years.

In particular, there is no statutory requirement to conduct strategic environmental assessments for discussing the need of the projects and for appraising the cumulative impact of projects in the vicinity.³² Climate impact assessments are not made either to assess how projects contribute to and may be impacted by climate change.

Hong Kong has to reform the EIAO to address the gaps in the current ordinance and prevent it from becoming a mere rubber stamp.

Becoming a sustainable, smart city

A smart city is a green city that is built by the people, for the people. Although the Hong Kong government updated its smart city roadmap in 2020, putting forth almost double the number of initiatives from 2017, it has been slow in realising it. Hong Kong has in fact fallen far behind that of many international cities on smart city development.³³

Many cities are now enhancing the quality and performance of urban services by becoming more intelligent through digitalisation. The accelerated development of new technologies, such as 5G, artificial intelligence, edge computing, and blockchain, is driving the evolution of smart cities.³⁴

Hong Kong has to build up the digital infrastructure for a smart city transformation and a more informed environmental policymaking and monitoring ecosystem.

Green Finance

Transforming into a regional carbon trading centre

Hong Kong remains third as a global financial centre in the Global Financial Centres Index (GFCI) published in March of this year.³⁵ This is an advantage for Hong Kong to position itself as a regional carbon trading centre and a hub for green and sustainable products.

³² [Hong Kong Lawyer, The Environmental Impact Assessment Ordinance: Two Decades, No Change](#)

³³ [Smart City Governments, 2020/21 Publication](#)

³⁴ [Badidi, Edge AI and Blockchain for Smart Sustainable Cities: Promise and Potential](#)

³⁵ [Long Finance & Financial Centre Futures, The Global Financial Centres Index 31](#)

Anticipating the global megatrend, Hong Kong needs to play a crucial role in the carbon market creating methodologies for verification and auditing, based on the supply and demand potential of various industries; the industrial Internet of Things to grasp the generation of carbon credits automatically and to ensure correct data flow in the market; and most importantly, tradable carbon credit standards, transaction products and a convenient trading mechanism that in line with internationally acceptable standards.

Carbon trading can be viewed as a potential source of greenfield investments to connect with exchanges in the mainland and further promote the strength of the Hong Kong capital market.

Hong Kong should establish a pilot in the Greater Bay Area immediately to accelerate its transition towards a carbon trading hub and digital economy, serving as a key feature of green and sustainable finance.

Nurturing local green finance talents

We are pleased to see the Certified ESG Analyst (CESGA) programme curated by The European Federation of Financial Analysts Societies and supported by Friends of the Earth (HK) is listed under the Hong Kong Monetary Authority's GSF Training Information Repository.³⁶ As green finance education and training is still in its infancy for Hong Kong, we look to the government to provide additional support to further enhance the capabilities of market participants in ESG analysis and green finance valuation.

An example would be to expand the Pilot Green and Sustainable Finance Capacity Building Support Scheme to cover the CESGA programme, as well as other green finance courses curated by Friends of the Earth (HK) and other professional organisations to incubate local green and sustainable financial talents.

As a pioneer of green finance public education in Hong Kong, we look forward to becoming a close partner of the Education Bureau and other government agencies to promote green and sustainable finance to the general public.

Hong Kong should fund NGOs introducing ESG and green finance curricula into schools and postgraduate programmes across the eight universities and higher education institutions to expedite ESG talent incubation in Hong Kong.

³⁶ [Hong Kong Monetary Authority, GSF Training Information Repository](#)