

# Hong Kong Youth Statement on Climate Actions

## COP26 Hong Kong Youth Delegates

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## 1. Introduction

The United Nations' Intergovernmental Panel on Climate Change (IPCC) has published the first part of its sixth assessment report (AR6) concludes that temperatures have been rising faster than in previous IPCC assessment cycles (IPCC, 2021). The threshold of 1.5°C will be reached by 2040. The latest IPCC report is code red to humanity, which refers to zero years left to avoid dangerous levels of climate change. We need to act right now.

Hong Kong as a subtropical and coastal city, is projected to be prone to temperature rise, sea level rise and more frequent and intense typhoons. It is obvious that Hong Kong will encounter further challenges, like economic loss, worsening mental and physical health, and biodiversity loss. Climate mitigation and adaptation strategies need to be developed accordingly to ensure Hong Kong a liveable, prosperous and sustainable future.

In the meantime, to deal with climate change in Hong Kong, we must not overlook the undermined livelihoods and living quality of the underprivileged. Thus, we must attach great importance to a just transition which refers to an approach "towards an environmentally sustainable economy that needs to be well managed and contribute to the goals of decent work for all, social inclusion and the eradication of poverty" (ILO, 2015). Also, people of different ages, races, incomes and needs need to be treated fairly and have equal access to the decision-making process on the path to alleviating the impact of climate change.

Moreover, the United Nation Framework Convention on Climate Change (UNFCCC) has a clear provision for the Principle of Intergenerational Equity, in Article 3.1 of the Convention: "The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities." Youth and children are the ones who face greater climate risks than the current generations. Therefore, young people must be involved in the decision making and policy formation process. Thus, we urge the government to set up a

Youth Climate Committee. This intergenerational approach is crucial in enabling young people's capacity in executing timely climate actions.

With more than 2,012 jurisdictions and local governments having declared a climate emergency, the Hong Kong government should follow suit and take an active leadership role in the face of a climate emergency. The government should set up a Climate Emergency Committee to enhance Whole-of-Government coordination on climate change policies, ensuring Hong Kong is well-prepared for mitigating and adapting to the climate emergency. This committee should be responsible for developing comprehensive planning across departments, targeted implementation, inclusive actions, and regular strategy updates.

As a major global city, financial hub, and a member of the C40 Cities Climate Leadership Group's steering committee, the Hong Kong government has failed to pursue the carbon emission reduction target set by the C40 Leadership Group - keeping global temperature rises within 1.5°C. The Hong Kong government should commit to the C40 Race to Zero pledge and reach (net)-zero in the 2040s or sooner, in line with global efforts to limit warming to 1.5°C. With this pledge, the government should identify interim, short- and medium-term targets and prioritise actions for the next decade. A fair share of the necessary 50% global reduction in CO<sub>2</sub> by 2030 would then be achieved with strategic planning.

## **2. Demands**

1. Declare Climate Emergency in Hong Kong
2. Pledge to reach net-zero emissions in the 2040s or sooner, in line with the global efforts to limit warming to 1.5°C
3. Increase the proportion of renewable energy in the energy portfolio to 20% by 2030 and elevate the proportion of solar energy to 10% at the same time
4. Contribute to a Green Climate Fund by the UNFCCC, and assess the feasibility of carbon pricing and carbon tax in Hong Kong
5. Identify the climate impacts of 1.5°C temperature rise in Hong Kong and develop contingency plans that ensure those who are most vulnerable can be protected accordingly.

## **3. Renewable Energy**

The International Renewable Energy Agency (IRENA) published a report titled, 'World Energy Transitions Outlook: 1.5°C Pathway,' which points to a consensus that "an energy transition grounded in renewable sources and technologies that increases efficiency and conservation is the only way to give us a fighting chance of limiting global warming to 1.5°C by 2050" (IRENA, 2021). The study also highlighted the importance of energy revolution, and clearly confirmed

that a deep and rapid energy transition is required in order to address the threat of climate change.

Hong Kong has set a target of carbon neutrality by 2050, and energy policy has come under close scrutiny. The Hong Kong Environment Bureau has stated that developing renewable energy (RE) would be one of our prior strategies to cut off carbon emission drastically since electricity accounts for 67% of carbon emissions (EB, 2021b). Without a clear roadmap, aspiration in carbon neutrality would only become empty talk.

In 2005, the Hong Kong government published *A First Sustainable Development Strategy for Hong Kong*, it estimated that Hong Kong has only modest realizable renewable energy potential arising from wind, solar and waste-to-energy at about 1-2% of Hong Kong's electricity demand by 2012 and 3-4% by 2030 (Sustainable Development Unit, 2005). RE accounts for only 0.2 % of the total electricity supply at present, which has far lagged behind its estimation, not to mention the average figure of 30% in Asia (YU, 2018). In China, the national target is to increase the share of non-fossil fuels (renewables and nuclear power) in its primary energy consumption to 15% by 2020, (while China has surpassed this target, achieved 15.9% by 2020) and 25% by 2030 (Ding, 2021). There is absolutely no reason for Hong Kong not to follow the national goal.

A major and urgent switch from fossil fuels to renewable energy sources in Hong Kong is essential to mitigate the impacts of climate change. Here, we call for an increase in the proportion of RE in the energy portfolio to 20% by 2030 while increasing the proportion of solar energy to 10%.

### **RE in Global**

Internationally speaking, RE has incrementally becoming the lowest-cost source of electricity in many markets. It has been a remarkable decade of change for renewable electricity generation, solar photovoltaic (PV) and wind power technologies in particular. The global weighted average levelized cost of energy (LCOE) of utility-scale solar PV fell by 85% between 2010 and 2020, from USD 0.381/kilowatt hour (kWh) to USD 0.057/kWh (IRENA, 2021). At one time more than double the cost of the most expensive fossil-fuel-fired power generation option, utility-scale solar PV can now compete with the cheapest new fossil-fuel-fired capacity (IRENA, 2021). The global share of solar power within overall renewable energy has surged from 1% to 14% during 2006-2016 (YU, 2018). RE has achieved a maturity level in terms of technology development, costs and market penetration.

### **RE in Hong Kong**

The major types of renewable energy available in Hong Kong are solar energy, wind energy, biogas and biodiesel. In 2018, the composition of renewable energy consists of 84.3% waste-to-energy, 13.1% biodiesel, 1% solar energy and less than 1% wind energy and hydropower

(EMSD, 2020). Hong Kong's fuel mix of electricity remains heavily dominated by coal (44%, 2019 data), and natural gas (29%) (Wong, 2020).

Hong Kong is located in subtropics, and we have significant solar energy resources. Studies found that HK's solar energy potential is much higher than the government's estimation. Lu (2013) found that out of the 309,000 buildings in Hong Kong, 233,000 are suitable for installing PV panels with a total area of 39 km<sup>2</sup>. The potential annual solar energy output can reach 4,674 Gwh, or 10.7% of Hong Kong's energy consumption. This will reduce greenhouse gas emissions by three million tonnes. A more recent consultation paper by the academies estimated that solar energy production can surge to 21% of the total energy demand if solar panels are installed at half of the idle government sites, 30% of the reservoir areas and 20% of the total rooftop areas (Asian Energy Studies Centre, 2020). Local youth advocacy *Solmunity* has commissioned Hong Kong Public Opinion Research Institute (HKPORI) in early March 2021 to conduct phone interviews with more than 5,000 survey respondents. 77% of the survey respondents supports the installation of solar panels in public areas such as parks, highways, and reservoirs (HKPORI, 2021).

Hong Kong does have the potential to develop RE as we have implemented several pilot projects, like the floating solar photovoltaic (PV) system at the Shek Pik Reservoir, the wind power station in Lamma Island and hydropower in Tuen Mun. However, these projects remain in an initial small-scale implementation, which failed to translate into other scale's project. Scholars also urged the government to undertake periodic feasibility studies on the RE in HK to ensure that the perceived lack of pathway is not a function of poor information shaping the limits of the development and undertake a broader review of viable pathways to sustainable electrical energy (Holley & Lecavalier, 2017). It is time for the Hong Kong government to establish a proactive and clear solar energy development goal of increasing solar energy production to 10% by 2030 and allocate more R&D funds to support renewable energy development in Hong Kong.

#### **4. Adaptation**

The latest IPCC Assessment Report shows that emissions of greenhouse gases from human activities are responsible for approximately 1.1°C of warming since 1850-1900, and global temperature is expected to reach or exceed 1.5°C of warming over the next 20 years (IPCC, 2021).

As aforementioned, due to the physical location of Hong Kong, we are prone to extreme weather events. According to the Special Report on the Ocean and Cryosphere in a Changing Climate, the annual mean sea level of Hong Kong in the 2090s is projected to increase by 0.73 to 1.28 meters compared to that in 1986 to 2005 (Poloczanska et al., 2018). Also, based on

the scenario of Super Typhoon Mangkhut with a high tide and more direct hit, business districts including Tsim Sha Tsui, Central, Wan Chai and Causeway Bay would have been inundated (Mirando et al., 2019).

On the other hand, climate change has also led to an abnormal rise in the number of hot days and nights. In Hong Kong, the temperature is expected to rise by 3 - 6°C in the late 21st century (2091-2100) under the high greenhouse gas concentration scenario, according to the Hong Kong Observatory (2014). Statistically speaking, an average 1°C increase above 28.2°C in daily is associated with an estimated 1.8% increase in mortality (Chan et al., 2012). During the hot season, hospital admissions increased by 4.5% for every increase of 1 °C above 29 °C (Chan et al., 2013). The low-income communities, children, the elderly and other vulnerable groups are disproportionately affected by and left unprotected from these extreme heat events.

The upcoming revised Hong Kong Climate Action Plan must include a robust city-wide adaptation plan that includes systemic resilience actions such as increasing public awareness on climate risks, optimizing response plans, and implementing finance programmes. Also, the needs of the vulnerable groups should be highlighted and addressed in the plan, ensuring a just transition process

Besides, there should be a clear road map in managing growing climate risks such as extreme heat, rising sea level, and an increasing number of storms. With an increasing number of “very hot weather” warnings every year, the government should provide a clear plan in mitigating the heat island effects, an example would be Singapore’s Cooling Singapore Project (Cooling Singapore, 2017).

### **Finance**

Globally, there is a gap of USD 1.8–2.4 trillion per year in financing for low emission and climate-resilient infrastructure, the majority of which is needed in urban areas (UNFCCC, 2019). The Hong Kong government should set up a Climate Emergency Fund, with the goal to enable and leverage scale-up actions by others and to strengthen climate resilience in the community. All these climate-resilience projects must be informed by science to maximize the effectiveness and impact of the project.

### **Enhance knowledge and education for capacity building**

To develop effective adaptation measures, research is a key factor in enhancing our understanding of climate science. The Hong Kong government should actively fund and build partnerships with international and local experts to improve the city’s capacities in climate modeling, intelligent data processing and developing appropriate protective measures.

Adaptation communication needs to be further specified with a detailed timeline of implementation and analysis.

## 5. Finance

To foster positive changes in Hong Kong, it is necessary to forge the capital attention for sustainable finance issues. Hong Kong should act as Asia's Regional Sustainable Finance and ESG Investment Hub, promoting a coordinated policy through an ESG policy roadmap, in order to meet the global sustainability agenda. The Hong Kong government should set up a Green Climate Fund to combat the climate crisis. On top of that, three priorities stand out on the international agenda - carbon pricing, green taxonomy and financing the green transition - so as to combat the climate crisis in Hong Kong.

In accordance with the United Nations estimation, the implementation of the 2030 Sustainable Development Agenda will require global investments of \$5-7 trillion per year (UNCTAD World Investment Report, 2014). To fill this gap, it will be crucial to mobilize the resources of financial intermediaries, including banks. By contrast, it is believed that the 100M Sustainable Development Fund of the Environment Bureau of HKSAR is inadequate to meet the demand for financing the green transition in Hong Kong, as a massive investment is needed for phasing out fossil fuels (EB, 2021a).

To achieve the ambitious carbon reduction goal set in the Paris Agreement, a carbon pricing policy is recommended by the International Monetary Fund, and the Organisation for Economic Co-operation and Development (Chow, 2020). Both the public and private sectors need to be accounted for this responsibility as Hong Kong is a developed city with stable economic growth. Similar to Japan and Singapore, most of the greenhouse gas emissions are generated from the use of electricity. However, unlike the neighbours in Asia, Hong Kong is yet to implement any of the carbon pricing policies.

Hong Kong is now lagging behind from its competitors on the road of decarbonization. Based on its market characteristics and the level of development, either an emission trading system or a carbon tax should be adopted in Hong Kong. By internalizing the social cost of emissions – making emitters pay – carbon pricing leverages the power of markets to steer economic activities away from carbon-intensive activities.

A second and even greater challenge is to ensure that countries develop consistent classifications of what counts as a sustainable investment. If an activity or asset is considered sustainable in one country but unsustainable in another, there cannot be a truly global sustainable finance market. To ensure a global level playing field, today's leaders should aim for an agreement on common principles for well-functioning and globally coherent taxonomies. Just as governments need to be mindful of the risk of carbon leakage, they must account for the risk of carbon financing leakage.

Climate change and sustainability are global challenges that require global solutions. Hong Kong, as an international financial centre, should uphold its commitment to sustainability for the world.

About the COP26 Hong Kong Youth Delegates

The COP26 Hong Kong Youth Delegates are the graduates of the Climate Advocacy Training for Youth from CarbonCare InnoLab. They are motivated by the vision of a sustainable world, who aspire to be climate advocates against the climate emergency. They wrote a youth statement to express their concerns and opinions on the sustainability policy and development of Hong Kong.

For more details of CarbonCare InnoLab and Climate Advocacy Training for Youth, please visit [link](#).

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