

Student : Hong Kong

**Subject : Paris Climate Agreement –
mitigation and adaptation**

Average climate score

C-

Must try harder. Hong Kong is in danger of falling well short of the mark. Such a failure will permanently damage the capacity for future advancement.

Mitigation – Cutting Hong Kong's carbon emissions

Subject **Mark**

Greenhouse Gas Emissions **D+** **Falling short of essential targets; High risk of stranded assets**

- Work before the Paris Agreement was promising. (Notably the plan to phase out coal in power generation.) But the 2015 Paris Agreement did not produce new ideas for HK. Too much gas.
- Hong Kong plans for greenhouse gas reduction by 2030 lag behind the necessary savings by 78%. That would FAIL the 1.5°C cut-off mark.
- The lack of an action plan to achieve net zero-carbon by 2050 indicates a serious policy gap. Gas-fired power plants being planned may become stranded assets since replacement of fossil fuels by renewables may become unavoidable soon after 2030.

Renewable Energy Generation **E+** **Bottom of class; Imagination chiefly used to generate excuses and plead exceptionalism**

- Hong Kong's renewable energy (1-2%) and planned goal (3-4%) place it bottom of class.
- Time and energy spent explaining obstacles rather than imagining answers signals a defeatist "can't do" attitude which disregards studies claiming local renewables could contribute up to 21% of overall power needs, as well the potential to connect to smart grids extending beyond Hong Kong's borders.
- The feed-in tariff plan looks worryingly like window dressing because limits to the lifetime and the scale of investments in renewable energy thereby reinforcing the status quo.

Energy Efficiency in Buildings **C+** **Too much tinkering; Meanwhile the housing stock ages; Homework needed**

- Building efficiency standards have been incremental, piecemeal and inconsistent since 1995 (with a focus on minor adjustments to electrical equipment efficiency and insulation standards limited to certain categories of buildings.) This does not add up to a comprehensive buildings efficiency policy.
- Public service announcements focused on appliance use raise questions about whether Hong Kong has a proper grasp of the priorities related to energy efficiency in buildings.
- 'Leading by example' in government buildings does not seem to have led to an outbreak of environmental enthusiasm in the much-larger private property sector.
- The lack of remedial work or a climate-smart urban renewal strategy for Hong Kong's rapidly ageing building stock is cause for concern. More homework is needed.

Low-emission Transport

C- **Patchy success and confusing policies**

- Hong Kong performs second-best among comparable cities in terms of energy consumption per passenger-km travelled due to its compact nature and tight geography.
- Electric rail transport represents HK's best work, but fails if the electricity that powers the trains comes in turn from fossil fuels.
- Electrification of the bus fleet is in the wilderness. Electric buses can climb hills. Hong Kong's A-stream city competitors are certainly not banking on 'cleaner diesel.'
- Proportion of electric and hybrid vehicles ranks well among your peer cities, but inconsistent follow-up policies are hurting further progress.
- Cycling is supposed to improve health, not shorten life expectancy. When can commuters expect safe downtown cycle routes?
- Traffic planning 101: More roads = more traffic = more congestion = more emissions: Discuss.

Waste management and other energy use

D+ **Consistent regulations, price signals and feedback loops still lacking to facilitate long-lasting public behavioral change**

- Delay in waste charge legislation may negate earlier initiatives in waste management.
- Danger of public apathy runs high due to lack of effective recycling policies and visible plans that demonstrate the benefits to all.
- Plans for expanding waste-treatment capacity need to be launched soon to handle a major proportion of the city's waste, taking account of the time taken to plan and build such facilities and waste reduction targets.

Adaptation – Creating a safe and healthy city

Subject **Mark**

Protecting health • Hot weather • New diseases **C-** **Absence of a joined-up plan to prepare for both acute and chronic risks**

- Problem identification: good reports were written recognizing the co-benefits of health and climate change action; warning systems and prevention of vector-borne diseases.
- Action plan: where is this? We need robust infrastructure initiatives and contingencies to protect vulnerable groups in high-risk situations.
- Epidemiology 101: "You can't manage what you don't measure." We need live statistics correlating changing weather patterns with heat-induced health impacts on the young, the old, and outdoor workers.

Safe and secure water supply **C+** **Public engagement in scenario plans needed; Contingency plans fail if nobody knows about them**

- Monitoring of risk to water supplies should extend to assessments of the reliability of the supply from mainland China in the face of climate change.
- The Supply Agreements need to be set in the context of total water resource management and watershed management in the region.
- The 'Drought Contingency Plan' won't gain any marks if it is kept hidden in a desk.

Reducing fire risk **B-** **Progress, but are we learning from worrying events around the world?**

- Extensive experience with limited area fires and fire danger warnings are a good foundation.
- No sign of assessment of the likelihood of simultaneous or large-scale fires which may result from higher temperatures and droughts, as witnessed in other parts of the world.

Floods & landslips **B+** **Consistent action on slope stabilization & rainwater drainage**

- Good marks on slope safety and drainage infrastructure for rainfall. This results from years of experience with heavy rains from cyclones and typhoons.
- We cannot stand still; work must continue on climate change scenarios emerging from the latest meteorological data.
- Land for new developments should not encroach on higher-risk hill areas.

Typhoons & sea level rise



Where's the flood adaptation plan?
Need to take account of increases in typhoon intensity

- No planning for storm surge infrastructure despite actual occurrences in dense urban areas and predictions of future increases.
- No immediate, medium or long-term plan to protect the territory from sea level rises and tidal surges in response to increased incidence of super typhoons.
- Good marks on public warning and preparation for typhoons and heavy rains, resulting from years of experience with typhoons and monsoon rains.
- More work needed on post-typhoon resilience, such as restoring normal infrastructure systems and public communications, as well as disposal of debris.

Natural coastlines and biodiversity



There are gaps in this work; Extinction is forever

- Data collection not yet sufficient to support good policy decisions.
- Land ownership politics cannot stand in the way of comprehensive policy to protect the coast and promote natural flood barriers and carbon sinks.
- Need to correlate species depletion and climate change effects, to protect and nurture the city's unique biodiversity. There is no remedial class for an extinction event.
- Continued tree planting programmes are encouraging, but lessons must be learned from typhoon damage and forecasts of more and stronger typhoons. Mangrove restoration is at least on the curriculum, but can do better.

Systems - Enabling institutions, knowledge and finance

Subject

Mark

Finance



Positive signs of intent; Outcomes and impact needed

- Recent initiatives are pointing in the right direction, but all government financial departments need loosen their ties and roll up their sleeves.
- Policy incentives, institutions and decision-making structures all appear to be at the incubator stage.
- The government must be more of a catalyst for capacity building and training for climate issues in the finance sector.
- The incentivized Green Bond Certification scheme also represents progress, but must build credibility to give the right reassurance to investors.
- The government's HK\$1 billion green bond announcement needs to demonstrate real environmental impact soon and not detract from innovative green finance in the private sector.

Technology



Not competing well with neighbours

- Policy incentives on green technology could be consolidated and strengthened.
- Lack of a green procurement policy by the government hampers any incentives to commercialise local innovation in green technology.
- Many opportunities here. Air conditioning would be one good area for Hong Kong to use practical and technical experience.

MRV - Monitoring, Reporting and verification



Transparency breeds trust. More of both are needed.

- Work must be properly reported, or it cannot be marked.
- Reporting to China for inclusion in the national contribution to the Paris Agreement is important. This should be transparent, regular and clearly set in the context of China's plans.
- It would help HK government explain climate actions to the public if climate action reporting was current and transparent.

Head Teacher's Comments

Mitigation

- I see from earlier comments that carbon reduction scenarios are old work, not updated to take account of the latest science, market evolution, international agreements and political developments. Keep up!
- Aspirational Climate Action Plan devoid of clear sectoral targets are in imminent danger of being exposed as cosmetic, raising the risk that this city will fall short.
- All the time and money applied to public education, public behavior and public opinion gathering must be accompanied by leadership: credible regulation, consistent financing and by enduring price signals for citizens and for the business sector.

Adaptation

- We worry Hong Kong is not really prepared for complex emergency involving extreme weather events plus disruption to basic infrastructure, water or power supplies - including coordination with authorities of neighbouring affected areas in the Pearl River Delta.
- Rather too many low-level government departments handle different adaptation portfolios raising concern that a big climate event will pose coordination challenges. Practical exercises needed!
- Typhoon and landslip preparation improved as a result of bad experiences in the past. We hope that HK doesn't have to wait for serious loss before we understand the importance of preparation in other areas of climate risks including extreme heat, coastal defence infrastructure and protection of water and power supplies. Let's not learn lessons the

Systems

- Hong Kong lacks the necessary attention in climate class. This is best demonstrated by poor marks on governance: Hong Kong lacks a dedicated climate authority with top level authority and an overarching agenda for action on mitigation, adaptation and resilience.
- A high-level Chief Scientific Advisor could, for example, contribute to good climate governance.

Next term

- We would like to see more application, starting with robust governance on climate action.
- We would like this city to raise ambition level on emissions reduction to that of peer cities around the region and the rest of the world, otherwise Hong Kong will certainly not remain in the A stream.
- Work on energy efficiency needs coherence and detail. The whole needs to amount to more than just the sum of the separate parts. Cosmetics will be confiscated!
- More imagination and preparation needed for adaptation work to prevent having to learn the hard way.
- High-level governance is also needed to drive work on climate-related finance, technology and capacity building up to the necessary standard.



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The scores in the report result from averaged marks provided by a panel of experts comprising*:

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