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Hong Kong Climate Resilience Roadmap for Business

EXECUTIVE SUMMARY



“This Roadmap recommends that business, facilitated by government, should begin to take steps to ensure that critical business decisions related to buildings infrastructure, financial and insurance systems are made with due consideration of climate change risks. We will then have a better chance of protecting ourselves from high costs and large losses in the future.”

**– Professor John Chai, Chairman,
Business Environment Council Limited**

“Hong Kong has an excellent story to tell on many levels. Our government has a clear desire to improve our environment and has climate change on its agenda. Our businesses recognise their role on this critical issue and have taken the necessary steps to get involved. Together we are working to make Hong Kong less vulnerable. We must however not be complacent as there is still more to be done to prepare for the full range of climate risks in the coming decades.”

**– Eric Chong, Chairman, BEC Climate Change
Business Forum Advisory Group**



“While climate change is a very major challenge, it also offers us a chance to pursue our liveability by embarking on a low carbon path.”

– KS Wong, Secretary for the Environment

“The government will continue to work on various aspects of adaptation. It is also very important for businesses to consider their own climate risks and implement their own corporate climate change plans for the whole city to be climate resilient.”

**– Christine Loh, Under Secretary for the
Environment**

“We are now halfway to the dreaded 2°C increase in global mean temperature while atmospheric greenhouse gas concentration has just hit another record high in 2014. Strong mitigation efforts are required to keep the greenhouse gas concentration in check to avoid irreversible damage to Earth. Determined adaptation efforts are also needed to plan ahead and to make our city ready to face the challenges brought by climate change, especially the increasingly frequent extreme weather and progressive sea level rise. This Climate Resilience Roadmap prepared by Business Environment Council is a timely guide for the business sector to take appropriate actions to minimize the potentially hefty mitigation and adaptation costs that will have to be borne by this and future generations.”

– CM Shun, Director of Hong Kong Observatory

“AAHK has been working closely with the airport community to strengthen Hong Kong International Airport’s ability to prepare for and respond to potential disruption, particularly when there is an expected increase in extreme weather events.”

– Mike Kilburn, Senior Manager – Environment, Airport Authority of Hong Kong

“Providing a reliable and stable power supply is critical to Hong Kong’s economy and our most important commitment to our customers. CLP has made it a priority to improve the climate resilience of our power supply system thus contributing to making Hong Kong one of the world’s most reliable electricity supply systems.”

– Richard Lancaster, Chief Executive Officer, CLP Holdings Limited

“Resilience in Gammon means not only rethinking our methods but also protecting our workers from heat stress. A collaborative effort is needed from designers, engineers and our industry to optimise prefabrication, modularisation, mechanisation and automation as well as raise our levels of emergency preparedness.”

– Thomas Ho, Chief Executive, Gammon Construction Limited

“Green buildings present three significant advantages: they deliver stronger long-term economic performance, promote healthier lifestyles and support sustainable development. These form the foundation to build thriving and vibrant communities that are resilient to the impact of climate change.”

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– George Hongchoy, Chief Executive Officer, Link Asset Management Limited

“Swire Pacific’s business depends on clean and reliable sources of water. Climate change poses a risk to our business through impacts to stable and quality water supply. We recognise that businesses and society need to modify their practices to reduce emissions whilst also adapting and strengthening our resilience, for example through replenishing our water sources and protecting them from pollution, and through enhancing water efficiency measures.”

– Mark Watson, Head of Sustainable Development, Swire Pacific Limited

“The Climate Resilience Roadmap is an important tool to increase the visibility of climate risk, particularly for Hong Kong companies. This will also encourage companies and financial institutions to measure and reduce their own carbon footprint. By working together we will build a climate-friendly future.”

**– Malini Thadani, Head of Corporate Sustainability, Asia Pacific
The Hongkong and Shanghai Banking Corporation Limited**

“As a major transport provider, KMB understands its responsibility of providing safe mobility to the community and takes all possible measures to mitigate the potential risks emanating from changes in climate. These measures range from deployment of new technologies to the development of manpower skills.”

– Roger Lee, Managing Director, The Kowloon Motor Bus Company (1933) Limited

INTRODUCTION

Hong Kong appears already to be experiencing the early impacts of climate change. The hottest summer temperature recorded was in 2015, and 4 of the hottest summers were in the last 7 years. Extreme rainfall events have also become more frequent.

Considerable action has been taken to date to address the risks that arise, considering the severity of extreme weather in the region and its mountainous terrain. In addressing some risks such as strong winds and landslides, Hong Kong is a world leader, and other regions of the world can learn from actions taken. Nevertheless Hong Kong remains vulnerable to climate change because of a high population and valuable assets at sea level, the extreme weather in the region, and dependence on complex supply chains. It is most likely to be affected by potentially substantial increases in temperature, extreme weather and sea level rise.

Climate change has the potential to cause huge financial damage not only through direct physical destruction but also through impacts on investments. It is expected to lead to loss of life, limb and livelihood, with the severity depending on whether carbon emissions are reduced substantially or if we continue on a high carbon path.

Hong Kong Climate Resilience Roadmap for Business: the Aims

Building on its previous work including the *New Normal: A Hong Kong Business Primer on Climate Change Adaptation*¹ and its *Risk Assessment Tool*², BEC Climate Change Business Forum Advisory Group researched into the further actions needed for Hong Kong's businesses to be climate resilient. It also started a dialogue with business and the Government to explore what is needed on the part of the Government to facilitate action by business.

The *Hong Kong Climate Resilience Roadmap for Business* ("the Roadmap") seeks to provide strategic direction for key business sectors to ensure they continue to adapt and are resilient in the face of climate change. This includes action on a sectoral level, shown in individual annexes to the Roadmap, as well as direction for the business community as a whole.

The Roadmap recognizes Hong Kong's high adaptive capacity and that the Hong Kong SAR Government has taken many positive steps to address risk related to climate change³. It also presents the actions and approaches of some of those Hong Kong businesses that have begun to address these risks, and provide leadership for others⁴.

Progress to date is analysed and a set of recommendations is made for business. Actions that the Government is

encouraged to take to facilitate adaptation and resilience by business are also set out. For business, the Roadmap seeks to embed a process of carrying out climate risk assessments, developing and implementing plans, and benchmarking performance combined with co-operation between business, as well as building knowledge and fostering innovation.

In terms of creating an environment to enable business to further contribute to the resilience of Hong Kong, the Roadmap encourages the Government to: establish appropriate platforms to enable regular dialogue with business on climate change-related matters; enhance institutional arrangements for inter-bureaux-departmental collaboration so that policies are applied across the administration; and set climate change-related long term policies, goals and implementation plans in consultation with business and the community. Further research and information dissemination, as well as raising public awareness, education and exemplification are also important as society needs to be engaged in dealing with climate change.

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Climate Risks

The degree of risk to Hong Kong depends on the scenario that we face. This ranges from a 2°C rise, if the world is to keep to a low GHG concentration scenario, to a severe and unstable situation if the world keeps to a business as usual approach leading to a high GHG concentration scenario.

The main impacts of climate change in Hong Kong⁵, direct and indirect are from:

- **Floods, landslides, and storm surge:** made worse by sea level rise, more extreme typhoons and heavy rainfall.
- **Heat stress:** affecting people, infrastructure and energy usage.
- **Water scarcity:** as demand for water grows and risk of drought increases.
- **Health risks:** from increased incidence of disease.
- **Supply chain risk:** caused by disruption to transportation and production.

1 Available for download here:
http://www.climatechangebusinessforum.com/en-us/research_04292013

2 Please email ccbf@bec.org.hk for a copy.

3 Hong Kong Climate Change Report 2015,
<http://www.enb.gov.hk/sites/default/files/pdf/ClimateChangeEng.pdf>,

4 See Chapter III of the Roadmap, and the Sectoral Annexes.

5 Information in this respect is also available from the Hong Kong Observatory and the Hong Kong SAR Government report entitled Hong Kong Climate Change Report 2015.

RECOMMENDATIONS



Business is encouraged to:

1 Assess Risk

Consider and assess risks across the length of operations, from the supply chain to investment decisions, and monitor risk exposure at regular intervals.

Relevant Actions

- Carry out a broad and systematic risk assessment to identify the major risks from climate change. BEC's Climate Risk Tool can help businesses do this.
- Build climate risk assessment into standard business risk procedures, making sure the possibility of the more extreme IPCC temperature scenarios are taken on board.
- Clearly allocate responsibility within the organisation and monitor risk exposure at regular intervals.

2 Develop and Implement Plans

Establish and implement plans to adapt to climate change as well as contingency plans for severe weather and disaster recovery situations.

Relevant Actions

- Put in place contingency plans and train staff for their implementation, in the near future.
- Put in place a medium to long term adaptation plan, reviewing progress routinely. Draw on available new technologies and practices in developing the plan.
- Address heat stress through measures like urban greening, appropriate provisions for the workforce especially those working outdoors, and work towards increasing the energy efficiency of new and existing buildings.
- Work towards ensuring new and existing buildings are highly resilient, taking on board risks in their location from flooding, sea level rise, landslides and high winds.
- Improve supply chain management, drawing on the best practice already in place within the sector. Share experience and seek specialist support if necessary.

3 Co-operate on a Sectoral Level and Cross-sectoral Level

Co-operate on a sectoral and cross-sectoral level to ensure risks are understood and kept under review, that

research is carried out, and that sound industry practice is developed, and opportunities for mutual support and co-operation are implemented.

Relevant Actions

- Share best practice, experience, expertise and information through forums, including BEC Climate Change Business Forum Advisory Group, trade associations and professional bodies, on climate change risks and responses.
- Put in place sectoral groups where appropriate to ensure joined-up emergency response systems, for example between transport operators and / or utility companies.
- Engage across sectors to develop shared views on: actions to ensure resilience, research needs, and Government policy measures needed to support action.

4 Benchmark Performance

Work across the sector and with other sectors to develop standards and benchmarks, assess performance against these benchmarks, and publicise achievements.

Relevant Actions

- Develop and implement appropriate standards and benchmarks, such as on assessing climate risk in the financial services and insurance sector, and on resilience of buildings to flooding and storm surge, working through trade associations and professional bodies where necessary.
- Review practice and performance against these benchmarks at regular intervals.
- Report on risk management approach and performance e.g. in ESG Reports.

5 Develop Knowledge and Innovate

Develop knowledge of best practice and seek to improve and innovate, making the best use of new technologies and approaches.

Relevant Actions

- Identify areas for research, and seek to ensure this is carried out by business or collaboratively with Government or research institutes.
- Adopt a culture of innovation which encourages and supports businesses to work collaboratively, making use of expertise from universities and research institutes, and trial new technologies.
- Draw on the "smart city" approach which brings out the opportunities from developing the technological interface between people and infrastructure, for example through smart grids and smart meters.



How Government may support and facilitate this:

1 Enhance Institutional Arrangements and Maintain Dialogue

Establish a ministerial level body to enhance internal Government deliberation on climate related issues to help Hong Kong optimise its efforts, and put in place mechanisms to enable on-going dialogue with critical business sectors on goals, plans and implementation.

Relevant Measures

- Establish a ministerial level climate change committee to enable the Government to develop policies, set targets and goals, monitor implementation and report on progress.
- Set up a forum for the Government and critical sectors (such as power, transport, construction, and property development and management) to regularly share views and coordinate efforts in order to improve Hong Kong's overall resilience.
- Create a broader forum for the Government, business and the community to discuss climate preparedness from time to time.

While the Government already has an Inter-departmental Working Group on Climate Change, which consists of representatives from across many departments, decision-making needs to be carried out at the ministerial level where there is the authority required to make and commit to new policy and strategic decisions.

2 Commit to Reduce Hong Kong's GHG Emissions, Adapt and Be Resilient

Articulate new goals and put in place a plan post the Conference of the Parties negotiations in Paris (COP 21) for Hong Kong to reduce its GHG emissions, adapt and be more resilient.

Relevant Measures

- Set a new GHG reduction target to be achieved by 2030, and longer term targets where possible, working to achieve this in particular through reducing carbon emissions from energy generation and transportation, and enhancing energy efficiency.
- Strengthen Hong Kong's capability to become more energy efficient and consider if the energy saving target of 40% energy intensity reduction by 2025 may be improved.

- When conducting periodic reviews of laws relating to energy savings, including as to electrical installations, electrical appliances and the building envelope, adopt high standards with reference to international best practice benchmarks.

- Adopt a national adaptation and resilience plan, which ensures all bureaux/departments and critical sectors take climate adaptation and resilience into account in the development and implementation of their policies and plans.

3 Fund and Encourage Research and Provision of Information

Support the collection and dissemination of relevant data, and provide funding for and encourage research relevant to climate risks, adaptation and resilience in Hong Kong.

Relevant Measures

- Allocate funding through the Research Grants Council, and other bodies, for research into key issues including critical infrastructure, good labour practices in conditions of heat stress, disease and food supplies.
- Support the collection and dissemination of relevant data, such as on levels of flood risk and storm surge in different localities as well as impacts of energy efficiency measures.

4 Raise Awareness, Educate and Exemplify

Continue to spread awareness of the impacts of climate change amongst the public, inform business of action that needs to be taken, and exemplify good practice.

Relevant Measures

- Continue to communicate the impacts of climate change to the public.
- Encourage action by smaller businesses and particularly vulnerable sectors such as the food retail sector.
- Influence behaviour through leading by example, showing what can and should be done, for example on infrastructure and buildings, energy efficiency, working conditions, and the supply chain.



Photo credit: Chan Kiu / SCMP

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About BEC and BEC CCBF AG

Business Environment Council Limited ("BEC") is an independent, charitable membership organisation, established by the business sector in Hong Kong. Since its establishment in 1992, BEC has been at the forefront of promoting environmental excellence by advocating the uptake of clean technologies and practices which reduce waste, conserve resources, prevent pollution and improve corporate environmental and social responsibility. BEC offers sustainable solutions and professional services covering advisory, research, assessment, training and award programmes for Government, business and the community, thus enabling environmental protection and contributing to the transition to a low carbon economy.

BEC Climate Change Business Forum Advisory Group ("BEC CCBF AG") promotes awareness of, and builds capacity in relation to, climate change mitigation, adaptation and resilience activities amongst the BEC membership and generally amongst the business community in Hong Kong. It also aims to provide a platform for BEC to engage relevant regulatory bodies on climate change related matters, and forge collaboration links between local and global expertise on climate change.



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