Social challenges and climate action series:

Civil Society works together to build a smart city that is in line with climate justice

September 2022

Since the CarbonCare InnoLab's Paris Watch Programme was launched, nine community dialogues have been held so far. The first eight dialogues were focused on the residents of subdivided flats, the welfare and the community health care sectors, outdoor workers, the persons with disabilities and mental illness, women's groups, renewable energy sector. In this community dialogue, we look to the future and explore how Hong Kong can build a smart city that is climate resilient and in line with climate justice. Internationally, smart cities

have always been regarded as an important strategy to achieve an environmentally friendly and low-carbon economy, and Hong Kong is no exception. We join participants to examine the status quo and policies of smart cities, and discuss whether smart cities solve or exacerbate climate injustice. Participants believed that this community dialogue has opened up discussions on civil society's involvement in smart cities, which will help promote the development of Hong Kong into a truly climate-resilient smart city.

An important part of the CarbonCare InnoLab's Paris Watch programme is to, through community dialogues, promote a deeper understanding of all walks of life and enhance their ability to deal with climate crisis. These dialogues put the principle of "just transition" at the core, and advocate that the interests of citizens who may be affected by unemployment, economic restructuring and rising prices must be taken into account during the transition. The principle of "just transition" also emphasizes the participatory and inclusive climate adaptation process. The participation and voices of various stakeholders, who are facing the impacts of climate change, must be guaranteed and respected.

Adhering to the principle of "just transition" throughout the first eight community dialogues, CarbonCare InnoLab held the eighth community dialogue on 19 August 2022, with a total of 14 people from 11 organizations, including member of government advisory bodies, architectural planning sector, information technology sector, social innovation groups, emergency relief and development organisations and environmental organisations, etc..[1] The participants all believed that this cross-sectoral civil society dialogue on smart cities was of great significance, which enhanced the participants' understanding of smart cities, especially to discuss whether the so-called environmentally friendly and low-carbon smart cities conform to the principles of climate justice. It was the first of this kind of dialogues.

Hong Kong's Smart City Blueprint focuses on technology but is not people-centred

In December 2017, the HKSAR government released the first "Hong Kong Smart City Blueprint" (hereinafter referred to as the "Smart City Blueprint"), which aimed at "building Hong Kong into a world-class smart city". A number of development proposals have been put forward in six major areas: "Smart Travel",

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[1] For the full list of participants, please refer to the Annex at the end of the article.

"Smart Living", "Smart Environment", "Smart Citizen", "Smart Government" and "Smart Economy". Thereafter, the first and second versions of version 2.0 were launched in December 2020 and April 2022, respectively. In fact, the rollout of "Smart City Blueprint" has gradually changed our lives, such as the fast payment system, "FPS", the addition of free public Wi-Fi hotspots, the "Smart Convenience" one-stop personalized digital service platform and other digital services, which are being popularized.

As for the "Smart Environment" part that we are concerned about, the carbon reduction and energy saving targets of the "Hong Kong Climate Action Plan 2050" announced in October 2021 were included as part of the "Smart City Blueprint". In other words, the first Smart City Blueprint was released before the announcement of the carbon neutrality target of the Hong Kong Climate Action Plan 2050. It is necessary for us to re-examine the challenges to meet the climate goals, and it may be necessary to update the Smart City Blueprint again, rather than directly incorporating the climate action plan.

Just as the development of smart cities has gradually entered the core of our life, it seems that civil society has not been able to respond forcefully. As part of civil society, we are particularly concerned about how to participate in the construction of a "smart environment". However, the "Smart City Blueprint" does not reveal how the public can participate in the construction of a "smart environment".

Participants began by expounding their understanding of smart cities, mainly around information and digital tools. For now, however, these appear to be dominated by governments, the tech industry, and corporations. From solar-powered waste sorting and treatment systems, green smart buildings to the application of Drainage Services Department's sponge city, etc., all the smart city examples listed by the participants are related to data processing systems, even automation systems and Internet of Things technology, which are also the important smart technology project for climate change in future.

Climate-smart cities must address digital divides

However, the participants also questioned whether the vulnerable groups can guarantee the just transition under the development of smart cities. From the previous community dialogues, the concerned groups of persons with disabilities and mentally illness have reported that they have no way to use technology platforms to obtain climate disaster warnings and related information in time, which makes them easier to get into trouble. Moreover, at present, we do not have a specific mechanism and allocate resources to ensure

that they can make good use of technology. Participants pointed out that the data gap is a common phenomenon, especially the inability of vulnerable groups to keep up with the development of smart cities has become one of the biggest challenges.

In addition, we are currently applying relevant climate technologies, including sponge cities, urban climate maps, air circulation assessments, and wind corridor planning, etc., but relevant information is currently limited to relevant professionals, and it is difficult for ordinary citizens to access and understand.

Participants also raised concerns about data security and privacy. Smart cities are based on big data, but how to collect, utilize, process and disclose data, as well as the frequent leakage of personal data in recent years, have become the most concerned issues for citizens.

Climate-smart cities require public participation

All in all, the participants affirmed that the construction of smart cities can certainly improve citizens' ability to mitigate, adapt and recover from climate change, and reduce the impact on ordinary citizens and vulnerable groups, but they also put forward the following suggestions when implementing smart cities. Priority must be given to:

1. **Ensuring public participation in smart city development and strengthening education:** The participants agreed on the importance of public participation. However, there is currently very little public awareness, let alone participation, in smart cities. Strengthening public education on smart cities, including learning and discussing smart cities in school curricula, setting up student "citizen scientists" programs, and educating the public to use smart technologies to obtain climate and carbon footprint information, etc., is critical to public participation.

2. **Ensuring vulnerable groups to access and understand key climate information:** Some of the technologies we mentioned above may generate complex climate and carbon footprint information, how to transform it into content that the general public can understand and use, improve user experience, and communicate it to vulnerable groups, will be key topics of smart city.

3. **Invest in developing inclusive smart technologies:** How we communicate climate research data to vulnerable groups through technology is also an important step in achieving climate justice. Participants mentioned a series of smart technologies to address climate change, including improving existing technologies, such as the Care-on-Call Service, to meet the needs of more vulnerable groups. Investment and financing in this area has become indispensable.

4. **Privacy requirements must be balanced when developing data-centric cities:** Data security is an important issue for smart cities. Achieving energy saving and carbon reduction should not forget the requirements of balancing data and privacy. The European Union has already implemented the General Data Protection Regulation and has become a global model. We must also pay attention to whether similar personal data protection regulations are implemented and strengthened in Hong Kong, and how effective their implementation will be.

5. **Guarantee the right of the public to monitor and evaluate the effectiveness of smart cities:** The participants pointed out that how to measure whether the development of smart cities achieves the goal of reducing carbon emissions, we need to collect baseline data from the environment, develop a long-term monitoring mechanism, and publish the data regularly, to facilitate public tracking and evaluation.

In the end, the participants all agreed on the importance of cross-sector dialogue and cooperation, so this dialogue is also very important. They pointed out that smart cities should be led by society, people-oriented, and "developed with the wisdom of cities". For a smart city to develop sustainably, to comply with climate justice, and to address climate change, public participation must be at the core of it.

Project Team (in no specific order)

Dialogue Designer and Chief Facilitator: Thierry Leung (Senior Social Worker, Programme Manager)

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Author's Profile

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Annex

CarbonCare InnoLab invited different groups and experts in Hong Kong to participate in the ninth community dialogue (in no specific order):

- Strategy Sub-committee of the HKSAR Government Council for Sustainable Development
- Green Architects
- The Hong Kong Institute of Planners
- Urban Acupuncture
- The Hong Kong Polytechnic University Jockey Club Design Institute for Social Innovation
- Internet Society Hong Kong
- Hong Kong Red Cross
- Friends of the Earth (Hong Kong)
- Tai O Sustainable Development Education Workshop
- Food Grace
- 350HK

Links

1. Social challenges and climate action #1: Empowering residents of subdivided houses in Hong Kong
2. Social challenges and climate action #2: Extreme weather hit hard welfare and health care workers and the vulnerable people
3. Social challenges and climate action #3: Legislation is the only way to relieve outdoor workers' suffering from extreme weather
4. Social challenges and climate action #4: Our society must include persons with disabilities in tackling climate change
5. Social challenges and climate action #5: Combining research and community action to support people with mental illness in tackling climate change
6. Social challenges and climate action #6: Climate action and transition to a low-carbon society must incorporate women's perspectives
7. Social challenges and climate action #7: Civil Society partnership accelerates the transition of renewable energy