

GENERVISION CAPE



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WORLD ENVIRONMENT DAY: "PLASTIC BAG LEVY" DONATION CEREMONY

June 5 is a special day for the Genervision House team, not only because of World Environment Day, but because Genervision House was very honored to have received the "plastic bag levy" donation from Wynn Macau at the celebration event held by the Environmental Protection Bureau. Under the coordination of the Environmental Protection Bureau, various integrated resorts, enterprises, supermarkets and department stores have donated the "plastic bag levy" funds to relevant organizations to support environmental protection or public welfare.

This is the first official donation Genervision House has received from enterprises. It is undoubtedly a great encouragement and support for our newly established organization without any financial support. From zero to one was full of challenges, beliefs and efforts of the whole team. We are grateful for the kindness and trust we have received along the way, and will keep working hard to promote the Sustainable Development Goals in Macau with different groups.

Can Carbon Be Traded?

Get To know Carbon Trading & Carbon Market

Samson Cheng

We often pay and trade in the market to obtain certain rights, and what is traded in the carbon market is the "carbon emission rights", that is, the right to emit carbon dioxide and other greenhouse gases.

Carbon trading is a market mechanism adopted to promote global greenhouse gas emissions reduction, for example, the two existing firms, A and B, are only allowed to emit no more than 100,000 tons carbon dioxide this year. The total emission is only 60,000 tons for firm A, while firm B, because of overproduction or other reasons, needs to emit more than 100,000. It can therefore buy extra carbon emission rights from firm A, this process is the formation of carbon trading and carbon market.

In addition to promoting global greenhouse gas emissions reduction, the carbon market also plays the role of "rewarding the advanced and punishing the laggards". From the above example, it can be seen that firm A, a small emitter, can make profits by selling its carbon emission rights, which is equivalent to "being rewarded", while firm B, a big emitter, can only pay extra costs to buy carbon emission rights from the carbon market to meet its production needs, which is equivalent to "being punished". This is like if test scores can be bought and sold, and the passing score is 60, and students who fail will be severely punished, students with good scores can sell the points above 60 to students with scores below 60, and students with good scores will profit from it, while students with poor scores will have to pay the price in lieu.

Besides purchasing carbon credits, firm B can also reduce its carbon emissions through its own efforts, such as introducing low-emission production technologies and adjusting its production structure, just as students with low grades can also improve their own performance through hard work. Of course, these efforts by the firms themselves also bring corresponding costs, so they need to make a trade-off between purchasing carbon emission rights and reducing emissions. When many firms in the market make this trade-off together, the carbon emission rights as a commodity will form a market price, which also reflects the marginal cost of reducing one ton of carbon emissions in the whole market.



Figure 1. Two firms with different carbon emissions lead to the trading of carbon credits
Source: PublicDomainPictures from Pixabay

From an economic point of view, before there was a carbon market, there was no cost for firms to emit greenhouse gases. However, excess greenhouse gases emission cause climate change, which brings heavy costs to society, i.e. "negative externalities" in economics. The carbon market precisely internalizes these social costs to the main emitter - firms - in advance, so that firms need to take carbon emissions into account when making decisions. In this way, carbon trading combines the scientific issue of climate change, the technical issue of reducing carbon emissions, and the social issue of sustainable development, and uses the market mechanism to solve this integrated scientific, technical, and social problem.

The carbon market seems to be environmentally friendly and can reduce the overall carbon emissions of the economy in the most cost-effective way, but there are still many problems and difficulties. For example, some corporate measures are low-carbon but not environmentally friendly, such as the massive adoption of solar power projects, which will cause environmental problems and occupy swathes of land for solar panel processing. Some measures are environmentally friendly but not low-carbon, such as installing a new flue gas dust collector for power plants, which can effectively improve the quality of flue gas but requires additional energy, which is equivalent to causing additional carbon emissions. In addition, companies subject to carbon market control may also consider relocating their businesses to areas outside of the market scheme, resulting in higher carbon emissions and more pollution problems in those areas. This phenomenon can also be called "carbon leakage". The establishment of the carbon market itself is also faced with a lot of work, such as the construction of the regulatory system, management system, infrastructure construction, and capacity building, as well as how to accurately measure emissions, allocate initial credits, and solve operational problems such as market liquidity, information disclosure, and handling of non-compliance. If the market is mature, financial instruments such as savings, mortgages, option and futures can be introduced to further enhance the liquidity and effectiveness of the carbon market.

Does Macau have the opportunity to participate in or even establish a carbon market?

In 2005, the European Union (EU) established the world's first carbon market, and Portugal participated in it as a member state as well. To date, there are about 20 carbon markets in operation around the world. China's carbon market has been in operation since 2011, with seven pilot markets in Beijing, Tianjin, Shanghai, Shenzhen, Guangdong, Hubei and Chongqing, and at the end of 2017, the construction of a national unified carbon market was officially launched.

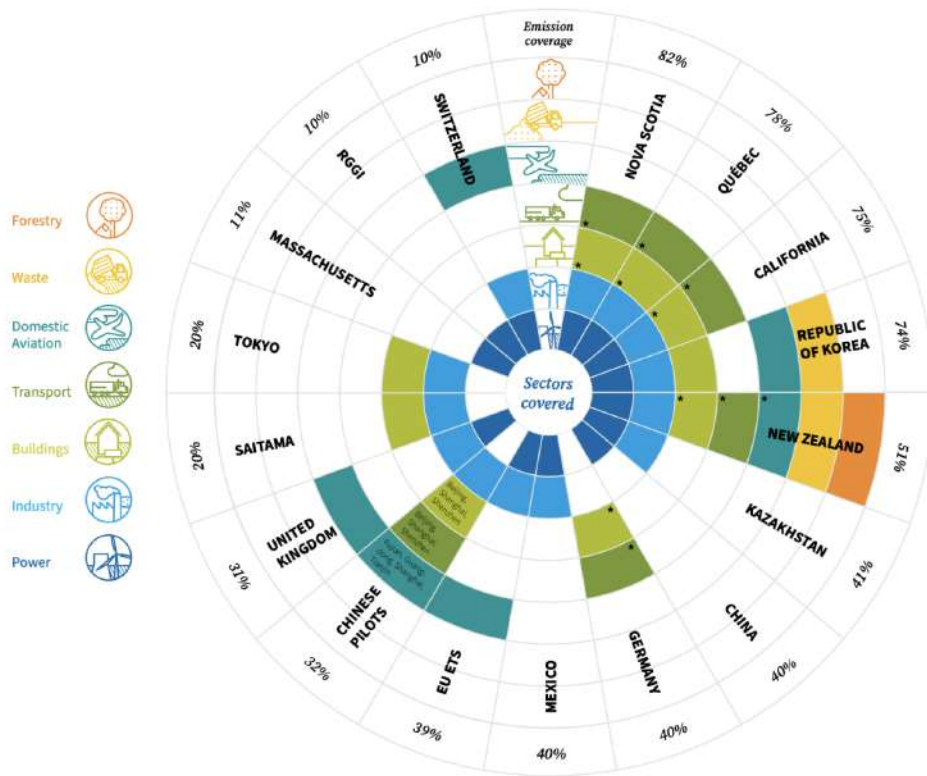


Figure 2 Global Major Carbon Markets, covering mainly the Power, Industrial, Construction, and Transportation Sectors

Macau is indirectly participating in the Guangdong and national carbon markets by importing electricity, oil and gas (in 2020, Macau consumed 5.37 billion kWh of electricity, of which about 93% was imported from the southern China power grid). However, Macau is a typical heterogeneous economy, with almost all local goods coming from trade imports and is highly dependent on import and export trade to compensate for its own resource shortage. Therefore, Macau's local carbon emission sources are small, mainly from power generation and waste disposal, and its volume and quantity are not suitable for the establishment of a carbon market based on direct emissions. Macau can consider establishing a carbon market that is in line with the characteristics of urban consumption, such as a carbon market for high-energy-consuming buildings in Tokyo, Japan, in which the energy consumption of buildings is accounted for and their indirect carbon emissions are calculated and then traded for carbon emission rights, which is equivalent to "energy trading", so as to encourage energy conservation in large buildings such as hotels and offices.

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Green Action: China Has Exceeded The 2020 Carbon Emission Reduction Target

According to the Ministry of Ecology and Environment, China's carbon emissions intensity in 2020 has dropped by 18.8% compared to 2015, exceeding the binding targets of the 13th Five-Year Plan, and the share of non-fossil energy in China's energy consumption has reached 15.9%, both exceeding China's 2020 targets promised to the international community. In September 2020, China made a solemn commitment to the world that it would strive to achieve carbon peak by 2030 and carbon neutrality by 2060. In the 14th Five-Year Plan and the outline of the 2035 Vision, the extensive formation of green production and lifestyle, and the stabilization of carbon emissions after reaching the peak have also become important contents.

Compared with developed countries, China's carbon emissions reduction is a tight, heavy task. How to continue to maintain relatively rapid economic growth while achieving low-carbon transformation of economic and social development will be a tough test.

Wang Jinnan, vice president of the Chinese Academy of Environmental Sciences: "The main difficulty is the adjustment of the industrial structure of the entire economy, we may have to adjust to the direction of green and low-carbon. The second adjustment from the side of energy supply, the current high fossil energy structure in accordance with the low-carbon or even zero-carbon direction, the use of renewable energy to replace fossil energy. The third adjustment from the side of the consumer, we need to establish a comprehensive green low-carbon consumption.



Reusing Plastic Waste To Build Rohingya Refugee Shelters

Have you heard of reusing plastic waste to build sustainable housing for refugees?

Just a few months ago, inside the largest refugee camp in the world located in Cox Bazar, Bangladesh, at least 15 refugees were killed and over 48,000 of them were displaced by a massive fire that spread through the shelters refugees stayed in. These shelters are normally made of highly flammable materials such as bamboo and tarpaulin.

Recently, a humanitarian organization named Norwegian Refugee Council has started the project “Using plastic waste to produce humanitarian shelter materials and supplies”, which explores using existing plastic waste and recycling methods to produce shelter materials such as bricks and roofs.

As nearly half (46%) of Rohingya households reported damaged or rotten bamboo in their shelters, this innovative solution to plastic waste could provide sustainable housing as well as new job opportunities for local communities to produce these shelter products.



Starting A Business In Less Than A Minute? Bhutan Uses Technology To Achieve Business Registration In Record Time

It used to take entrepreneurs from Bhutan days to trek across the Himalayas to register a business physically at a government office and a five-day wait for registration. With the onset of a new small business registration portal using the United Nations Conference on Trade and Development (UNCTAD)'s online single window technology, local entrepreneurs - even those from small companies which comprise 95% of industries in Bhutan - can just fill in a form on their phone and receive their business documents by email under one minute and at no cost.

This approach allows the country to innovate first and regulate later, while reducing the entry barriers for new companies.

Promoting Sustainable Development Using Big Data

Andy Ho

The pandemic has impacted the development of Macau society in various aspects, especially when the pandemic was more somber last year. You may still remember the suspension of classroom education and the difficulty of holding offline meetings and training activities. However, crisis and opportunity always coexist. In the face of the inconvenience brought by the pandemic, the Macau government and all sectors of the community acted proactively and pooled their wisdom, so that education, meetings and training activities quickly moved from offline to online, and the rapid development and popularity of these activities was surprising.

Since last year, the Macau government has launched a series of financial assistance measures, which have received a lot of praise. It is worth pointing out that, in order to promote local consumption and boost domestic demand, the government issued an electronic consumption card for the first time last year, with a total of MOP8,000 in two instalments of consumer subsidies to meet the urgent needs of residents. Many merchants have applied for the installation of machines in order to enjoy this benefit, and have introduced various promotion in response to the "e-Card", which is a multi-pronged approach to promote customers to spend more. All of the above, whether it is the gradual change of customer spending habits, or the initiative of merchants to change, have accelerated the development of electronic payment in Macau. This year, the government has launched the "Electronic Consumption Benefits Plan", under which eligible persons will receive a \$5,000 activation fee and a \$3,000 discount amount, and can choose to get the activation fee and discount through "mobile payment" or "e-Card".

According to the authorities, as of June 11 at 12:00 noon, about 615,000 residents have completed registration, of which about 279,000 people chose "mobile payment", accounting for 45.4% of the number of registrants, and about 335,000 people chose "e-Card", accounting for 54.6% of the number of registrants. According to the statistics, different industries have benefited to varying degrees to support the operation of micro, small and medium-sized enterprises, with the catering industry topping the list of industries benefiting from the scheme in terms of total transaction amount.

I believe that from last year to this year, the consumption process of the general public has generated a large amount of data. How to make good use of these data to help enterprises to achieve better development is worth further consideration by businesses. Through the appropriate integration and analysis of these data, businesses will be able to make decisions to better meet customer needs and promote business development.

Specifically, in the case of the catering industry, which is the first industry to benefit from the "Electronic Consumption Benefits Plan" mentioned above, restaurants should, on the one hand, actively innovate to seize the rapid development of the food delivery industry under the pandemic and expand new space for development while continuously collecting data from online platform. In the offline aspect, in response to the gradual change in customer consumption habits, the possibility of contactless ordering can be explored. Through the above measures to better collect online and offline data, decision makers will have a clearer idea of the average daily sales volume of each dish, so that they can prepare ingredients in a more targeted manner beforehand. And in this process, in addition to the development of enterprises themselves, they can also avoid food waste due to excessive preparation of ingredients, contributing to the realization of sustainable social development.

Activity Of The Month: The Gutenberg Soap Series

On May 30, Genervision House and local young artist Oriana Cheang held a "Gutenberg Soap" printing workshop at the beautiful Centro De Cultura e Artes Performativas Cardeal Newman De Macau (CCCN Macau). Through the use of sustainable materials to make cards and seals, we tried to start the discussions about the origins of daily necessities and modern consumption patterns.

We were glad to have the opportunity to explore the fun of craftsmanship with all the participants in the elegant CCCN Macau. When one can focus on creation with a peaceful mind, no matter how product would ultimately become, the joy of that 'flow status' in the process is a rare experience in life. We hope that those of you who participated had enjoyed this short precious moment.

