

GenerVision Cape

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Macau Women: The Stories and Power Behind Episode 2

"If you act right, you are right. That's for certain." This is a classic quote from Dorothy Vaughan in the movie "Hidden Figures". This echoes the sentiments of Aglaia Jiang in her interview about women in the technology industry.

Aglaia is the Chief Technology Officer of LeapFive Technology, former Chief Technology Officer of Google and former VP/GM for Connected Platform Business Unit in Cisco's Enterprise Networking Group. From Aglaia, you can see not only the tireless pursuit of innovation and excellence, but also the insistence to throw away the traditional shackles of gender and be yourself, as well as the courage to choose to change again and again, to test your potential and never set limits.

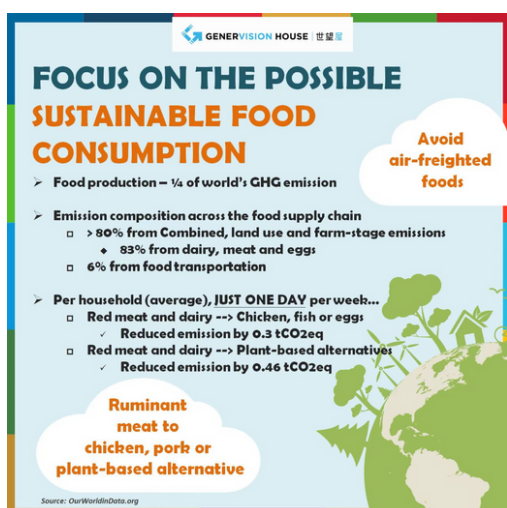
"Hidden Figures" also says, "Women, on the other hand, had to wield their intellects like a scythe, hacking away against the stubborn underbrush of low expectations."



Featured Articles

Sustainable Food Consumption

As an international tourism centre, Macau is a famous food capital, and different types of cuisines can easily be found everywhere. Apart from enjoying our lives in this food heaven, our eating habits are actually closely linked with various environmental issues. The generation of greenhouse gas (“GHG”) throughout the food production process is one of them. A senior researcher from the Oxford University carried out a research and pointed out that the food production process accounts for 25% of the global GHG emissions.



"Eating local" has always been promoted as a means to reduce emission levels, which has also advocated by the United Nations. The rationale behind is to reduce GHG emissions arise from the transportation of products. However, as where there are limited local farming facilities in Macau, how can the problem be solved through eating locally?

The above-mentioned study pointed out that the greenhouse gas emissions generated in the transportation process account for only 6% of the supply chain. Majority of the emissions come from combined land-use and farm-stage - accounted for at least 80% of GHG emissions throughout the entire supply chain. Among all, the emissions generated by cows are the highest.

Genervision House Visits Macao Water

On 24th March, Genervision House were delighted to visit Macao Water to learn about its continuous efforts in sustainable development and innovation in ensuring quality and safe water supply to Macau.



Sustainable development practices at Macao Water are:

- Having a comprehensive sustainable development roadmap and regularly communicating with stakeholders (including customers and communities) about their concerns and needs, and incorporating those into formulating their sustainable development activities and plans;
- Half of Macao Water's management roles are held by women;
- Introduced advanced water treatment technology and equipment to their operations, including the "AQUAADVANCED Network" management system to fully monitor water distribution in Macao and regulate water supply and pump operation in real time;
- Maintained a water leakage rate at ~7.5%, outperforming neighboring cities such as Hong Kong and Mainland China.

Russia-Ukraine War Fuels Further Global Inflation: How does It Impact Countries and even Macau?

Major economies worldwide are facing the economic shocks induced by the Russia-Ukraine war. Shipping costs and flight times have increased for movement of cargo between Europe and Asia, leading to dramatic price spikes of almost every commodity, especially food products, energy and metals. The war adds further strain to the world economy amidst global supply chain disruption resulting from the ongoing Covid-19 and China's strict pandemic policies.

According to the United Nations Food and Agriculture Organisation, global food prices hit a record in February since 2011, especially for the price of wheat. Both Ukraine and Russia are main exporters of grains, accounting for a quarter of the global grains trade, thus affecting the livelihood of importing countries of grains, notably developing countries.

Supplying over 10% of the world's oil, Russia is the world's third largest oil producing country and also the second largest natural gas producer. While the US and the European Union are contemplating on Russian oil export ban, the price of each barrel of oil has reached USD \$110.

The impact of the war is not limited to within the two countries, citizens from faraway regions also feel the inflation of commodities ranging from food to oil and metals that are used to manufacture daily products.

Although there is minimal trade ties between Macau and both Russia and Ukraine, uncertainties caused by a protracted war will exacerbate global supply chain problem and thus affect Macau to a certain extent. For example, the regions experiencing impacts in manufacturing and commodity price surge- EU, US and Japan - account for around half of Macau's trade imports.

War not only leads to a humanitarian crisis and damages the international order, it also affects the supply and delivery of daily commodities for citizens worldwide. In an era of globalization, no one can stay out of the impacts of war.

Asia and the Pacific SDG Progress Report 2022

The United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) has released the Asia and the Pacific SDG Progress Report 2022, noting that the impact of the epidemic is far-reaching and that the Asia-Pacific region is experiencing serious slowdown and even regression in achieving the 2030 Agenda for Sustainable Development.

Three alarming trends:

First, the Asia-Pacific region is losing ground in achieving the 2030 Agenda for Sustainable Development. In addition to slow progress, man-made crises and natural disasters are hindering the ability to achieve the goals.

Second, despite sporadic progress on some goals, the Asia-Pacific region is moving in the opposite direction at a disturbing pace.

Finally, the Asia-Pacific region is experiencing widening disparities and increasing vulnerabilities, and never has there been a greater need to help those who are left at the bottom.

The Asia-Pacific Progress Report on Sustainable Development Goals also notes that a focus on post-epidemic economic recovery could hinder progress toward sustainable development goals, progress that has been lagging from the start. The 2030 Agenda can serve as a guiding mechanism for economic and social development as the Asia-Pacific region strives for better reconstruction and recovery. Governments, stakeholders and UN organizations must maintain a collective commitment to a more prosperous and greener world.

A Brief Look at Public Green Space Development in Macau

Gladys Ng

After many years of preparation, the "Macao Special Administrative Region 2020-2040 Urban Master Plan" ("Master Plan"), was finally approved on February 14, 2022, and came into effect on the day following its announcement. One of the highlights of the new Master Plan is the promotion of green, low-carbon, and sustainable urban development.



Although "green" and "low carbon" are aspects of environmental protection, they are closely related to the physical and mental health and quality of life of citizens. Many international indicators, including United Nations Sustainable Development Goal 11.7, recognize the relationship between green space and public health and emphasize that it must be accessible to all.

Green spaces in cities, including parks, wetlands, and vegetation, can reduce health risks from the environment and improve mental health by improving air quality, buffering noise pollution, and providing places for activities. The Harvard School of Public Health conducted a study of 100,000 women in the U.S. and found that the more greenery near the respondents' living environment, the healthier they were. In 2020, the Chinese Academy of Sciences also studied the effects of direct physical and/or sensory exposure to the natural environment on the mental health of Guangzhou residents and found that green spaces improved depression, anxiety, positive emotions, and life satisfaction. When people have easy access to green space, they are more likely to go out and enjoy the outdoor. Green spaces in cities offer a wide range of benefits to citizens, but these benefits are also influenced by their accessibility (i.e., how easy it is to get to a location).

Although there are many public green spaces in Macau, their distribution, quality, and accessibility are not equal. Currently, the total green spaces managed by the Municipal Affairs Bureau, including recreational spaces, roadside vegetation, plant nursery, and ecological landscapes, are more than 7 million square meters, of which more than 60% is located in Coloane. In 2020, green space per capita in ddf

Macau (accounting only for green spaces managed by the municipal government) was 10.5 square meters, while the values in each district are: 2.1 square meters per person in Macau Peninsula; 13.8 square meters per person in Taipa; 125.0 square meters per person in Coloane. The distribution of green space in Macau is uneven

Excluding other types of green spaces, the ratio of recreational green spaces (i.e. parks, areas with greenery and leisure facilities), where people gather and do their daily activities, is even lower, and not every space is of equal quality - a factor that affects whether residents use it. For example, the Leisure Area of Kun Iam Statue Waterfront has multiple recreational facilities, while the Leisure Area in Avenida de Demétrio Cinatti or Travessa Nova da Areia Preta only has a few recreational and exercise equipment.

Although the Master Plan intends to "complement the lack of green areas or public open spaces" and enhance their "accessibility and connectivity to residential areas," the data and maps provided in the draft indicate that residents outside particular areas may not enjoy equal access to green spaces. According to the land-use allocation of the Master Plan, 8% of Macau's land will be green or public open spaces and 18% will be ecological conservation (i.e. existing mountains and water bodies). Among them, spaces in Coloane will remain unchanged, while more green spaces will be added to the three new urban zones and Toi San, Areia Preta, Iao Hon, Outer Harbour, and Nam Van Lake reclamation area. Additional green space in the densely populated North District is long overdue, however, areas such as São Lourenço, Patane, Ilha Verde, Fai Chi Kei, and other areas where there is little green space have not been "favored" in this Master Plan. Apart from increasing green spaces, there is no mention of upgrading the existing spaces in the Master Plan. If residents in the above-listed areas want to enjoy a fully functional and lush green environment, they must walk or use transportation to reach places far away from their living area, which is not convenient.

Increasing the quality of green space in specific districts alone is not enough to meet the needs of a growing population. The Master Plan divides Macau into 18 districts, and its purpose to build a green and livable city can only be truly satisfied if each district has the same quality and accessible (e.g. reasonable time and distance to reach) green spaces. In addition to environmental protection and enhancement, the design of green spaces should also consider their impact on public health and wellness (including mental health) and take full advantage of their benefits. Finally, a good public green space should be designed by its users. Therefore, it is suggested that public participation should be encouraged in the design of green spaces to ensure that these spaces will be fully utilized.

(Published in Plataforma Media)

Do You Want to Work in Sustainability?

Check out these recommendations from sustainability leaders and professionals on how you can build a career in the field!

What exactly is a sustainability professional? We might think of ecologists, environmental engineers and the other jobs that are natural science-based. But do you know that you can grow a sustainability career without being a scientist?

Sustainability concerns the development of three areas: society, environment and economy. And there are jobs that already exist in each of the areas. Although some jobs are not necessarily connected to sustainability from the onset when they were created, this connection is growing. Governments and businesses become increasingly aware of the significance of sustainable development as the world undergoes climate change, economic crisis, and social justice issues. Meanwhile, consumers are paying more attention to the ethical and environmental side of the products and services they use. This sustainability trend is shifting all industries and the respective jobs to become more “green”. In fact, the International Labor Organization estimates that the green economy can potentially create 24 million jobs worldwide by 2030.



With that being said, it is only a matter of time that the industry you are in, or you will get into, can offer a sustainability-related position. So, you don't have to change track completely from what you are doing - but there are a few skills that can help you prepare for a sustainable career when the opportunity arises.

If you aspire to become a sustainability professional but the job market is not yet ready, just know that you might already have the skills that it takes. Sustainability encapsulates different aspects and you can definitely find your role! Here are 5 tips from the experts:

你想在可持續發展領域工作嗎？

快來看看來自可持續發展領袖和專業人士的建議，教你如何在這個領域發展你的職業！

Do you want to work in Sustainability?

Check out these recommendations from sustainability leaders and professionals on how you can build a career in the field!



GENERVISION HOUSE 世望屋



以下是專家提出的5個建議，幫助你為建立一個可持續發展的職業生涯做準備：

Here are 5 tips from a few experts that can help you prepare for a sustainable career when the opportunity arises:

找到你的專業領域

Identify your area of expertise

想想可以如何通過你的專業領域為可持續發展的三個方面做出貢獻。如果你的專長是技術/IT，你可以幫助建立創新的工具，幫助企業變得更高效、更環保。如果你從事時裝設計，你可以為可持續服裝提供創造性的解決方案。

Think about **how you can contribute to each of the three sustainability aspects through your area of expertise**. If your expertise is in tech/IT, you can help build innovative tools to help businesses be more efficient and environmentally friendly. If you are in fashion design, you can develop creative solutions for sustainable fashion.

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磨練你的「綠色」技能

Hone your "green" skills

綠色/可持續發展職業的基本技能有四種主要類型：**工程和技術技能、基於科學的技能、運營管理技能和監控技能**

There are four main types of skills that are essential for green/sustainability jobs: **Engineering and technical skills, Science-based skills, Operational management skills, and Monitoring skills**



工程和技術技能
Engineering and technical skills

基於科學的技能
Science-based skills

運營管理技能
Operational management skills

監控技能
Monitoring skills

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培養毅力和韌性

Develop perseverance and resilience

要明白可持續發展專業人士需要完成的是一個馬拉松，而不是短跑。事實上，許多企業的可持續發展目標通常不會訂立在一個商業週期之內，而且這些目標也不會在最初制定這些目標的專業人士的工作期間之內能完成。

Understand that sustainability professionals are completing **marathons** – not sprints. Indeed, many corporate sustainability goals **will lie not only outside of a single business cycle but outside of the working lifespan** of the professionals who first developed them.



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能夠翻譯和簡化概念

Able to translate and simplify concepts

可持續發展專業人士有責任幫助人們在日常和當前項目之外看到外圍的大趨勢，並能拆解複雜的概念和目標，並以容易理解的方式向人們解釋。

Sustainability professionals have the responsibility to help people see the bigger trends beyond their day-to-day and current projects and the ability to break down complex concepts and bold targets and explain people in a way that stakeholders can understand.

What do you mean by ESG?
ESG是甚麼意思?

ESG是一個可以幫助企業...
ESG is a criteria that can help companies to ...



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學會合作

Learn to collaborate

複雜的問題需要多邊解決方法和參與。因此，制定和實施良好的可持續發展戰略需要利用不同團隊和個人的不同優勢。

Complex issues need a multilateral approach and participation. Therefore, the development and delivery of good sustainability strategies need to leverage different strengths from different teams and individuals.



by WhimpyPatheticus

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Can We Put a Carbon Price on Fossil Fuel-powered Cars?

The Macao Transport Bureau announced that the Macao Land Transport Planning (2021 - 2030) will hold its public consultation soon. While the plan is yet to be published, we predict that it will follow the direction as dictated in the second five-year plan and urban master plan: to implement a green, pedestrian-centric transport strategy, and encourage more uptake of electric vehicles.



From our estimation based on the publicly available data, land transportation accounts for about 30% of the city's greenhouse gas emissions. Despite the tax exemptions and incentives that the government provides for owning non-fossil fuel vehicles, electric vehicles only represent 1% of the total vehicles in Macao. If incentives alone cannot encourage people to “go green”, what can?

First of all, what is a carbon tax? A carbon tax is a fee for tons of carbon dioxide emitted. It was first proposed in the US in 1973 by MIT engineer David Wilson.

The idea behind this tax is: if you don't want people doing something, you can charge them for doing so to reduce their willingness to do it. To control the growth of fossil fuel vehicles, the government can take into account the vehicles' carbon emission levels when deciding the amount of vehicle tax, or tax the owner for the carbon emissions from driving their vehicles. Although the latter is difficult to implement because it will require real-time measurement and monitoring of the vehicle's emissions. But the former has actually been implemented in several European countries.



對車輛徵收碳排放稅

Carbon tax for vehicle

甚麼是碳排放稅?
What is carbon tax?



碳排放稅是對排放的二氧化碳所收取的費用

A carbon tax is a fee for carbon dioxide emitted



如果你不想讓人們做某些事情，你就可以向他們徵稅，降低他們做這件事的意願。

If you don't want people doing something, you can charge them for doing so to **reduce their willingness to do it.**



政府可以在決定車輛稅時考慮車輛的碳排放水平，或者對車輛擁有者的碳排放徵稅。

The government can **take into account the vehicles' carbon emission levels** when deciding the amount of vehicle tax, or **tax the owner for the carbon emissions from driving their vehicles.**



歐洲的碳排放稅例子 Carbon tax examples from Europe



芬蘭的車輛稅會計算車輛的二氧化碳排放水平

Finland's vehicle tax **includes calculation on the vehicle's carbon dioxide emission levels.**

克羅地亞的車輛消費稅考慮了車輛的平均二氧化碳排放量

Croatia's excise levy considers the **average carbon dioxide emission** and the **type of fuel** used by the vehicle



歐洲的碳排放稅例子 Carbon tax examples from Europe



愛爾蘭的車輛稅是根據不同階層的二氧化碳排放水平而定

Ireland's motor tax determined based on **different levels of carbon emission**

荷蘭對車輛徵收的註冊稅會計算車輛的二氧化碳排放量（根據車輛的燃油效率來決定）

Netherlands' registration tax on passenger vehicles calculates the **CO2 emissions of the vehicle** based on its fuel efficiency



The United Nations Environment Assembly Passed a Resolution to End Plastic Pollution, Aims to Create an International Legally Binding Agreement by 2024

On March 2, 2022, 175 countries agreed to create the first international plastic reduction agreement at the fifth session of the United Nations Environment Assembly in Nairobi. The resolution establishes an Intergovernmental Negotiating Committee, and aims to finish a draft legally binding international agreement by the end of 2024.



Plastic production increased rapidly in the last decades and now about 400 million tons of plastic are churning out each year. This is set to double by 2040. Today, plastic pollution exists in everywhere, from the Mariana Trench to Mount Everest. Evidences confirms the pollution, and it contributes to climate change. Producing and burning of plastic is estimated to emit 850 million metric tons of greenhouse gases to the atmosphere, which is approximately the emissions of 189 coal-fired power plants.

UNEP Executive Director Ms Inger Andersen: “Getting the agreement right will kickstart a circular economy that delivers huge benefits. A comprehensive circular economy approach could reduce the volume of plastics entering our oceans by over 80 per cent by 2040. It could reduce virgin plastic production by 55 per cent. It could save governments USD 70 billion by 2040. It could reduce greenhouse gas emissions by 25 per cent. Create 700,000 additional jobs, mainly in the global south.”

We hope this plastics agreement will establish a comprehensive framework to solve the plastic pollution problem.