

# Genervision Cape

Issue No. 14 | 02.2022

## FEATURED ARTICLES

- 1 Sustainable Development of Macau Tourism Industry
- 2 Green City – Paris
- 3 Storms, floods and deaths on the rise as climate fallout takes shape in Asia
- 4 The 2022 Asian Economic Integration Report's Implications for Macau's Digital Trade Development
- 5 When Athletes Meet the Period
- 6 Period Positive Workshop Recap



## Genervision Member Witnessed the Green Winter Olympics

During the 2022 Beijing Winter Olympics, Samson Cheng, a member of Genervision House, had the honor to serve as a volunteer of the Olympic Family Assistant (OFA), being the assistant of the Olympic Committee Secretary General of Norway, handling tasks such as transportation, communication, etc.

Therefore, he was also fortunate to travel to various venues of the Winter Olympics and shared his views on green, low-carbon and sustainable Winter Olympics.



Watch this video on YouTube:  
<https://youtu.be/O8wUp8tg9HM>

# Featured articles

## Sustainable Development of Macau Tourism Industry

Over the past two years, the tourism industry in Macau has been experiencing tremendous challenges since the COVID outbreak in 2019. The impact to the society is pervasive – significant drop in gaming revenues and tax receipts, rising unemployment figures, etc.

Despite the unfavorable economic condition, Macau has turned back to a quiet, peaceful city that most of us enjoy – traffic is significantly less and public facilities are also less crowded. Maybe it is time for us to question ourselves: where were we heading towards with the development over the past 20 years?



Sustainable tourism development has gained its prominence in global agenda since the 1980s. As an international tourism center, it is crucial for Macau to incorporate sustainability element in the tourism development process. Particularly, the UNWTO has put forward 3 directions for sustainable tourism development:

- Make optimal use of environmental resources that constitute a key element in tourism development, maintaining essential ecological processes and helping to conserve natural heritage and biodiversity.
- Respect the socio-cultural authenticity of host communities, conserve their built and living cultural heritage and traditional values, and contribute to inter-cultural understanding and tolerance.
- Ensure viable, long-term economic operations, providing socio-economic benefits to all stakeholders that are fairly distributed, including stable employment and income-earning opportunities and social services to host communities, and contributing to poverty alleviation.

The sustainable development is a long and continuous process that requires engagement from different parties to achieve the common goal – not just the government and big corporations, but also you and me. It is apparent that it is no easy task as we are all living in this society with complex and multi-dimensions agendas. But it is never too late to start.



## Green City – Paris

Like most of the capitals in the world, the French capital has been packed with cars and other types of vehicles. In constructing an eco-friendlier transport system, France is investing 250 million euros to make the city of Paris entirely bikeable by 2026.

With the pandemic and a recent transportation strike in 2019, more people have turned to biking to make their way around the city. During the pandemic alone, more than 50 kilometers of what were temporary bike-only lanes, called coronapistes, have now been made permanent. The plan will add another 130 kilometers of bike-safe pathways, in addition to the coronapistes, throughout the city.

Moreover, the plan also outlines measures to teach children to ride bikes in schools, add repair workshops in each district of the city, and encourage cycling tourism. These measures will help the city's goal to become one of the top bike-friendly locations in the world. And with continued success, this plan may even encourage other metropolitans around the world to follow suit.

Apart from the cycling network, Paris will develop an urban aerial tramway. In March 2022, Paris will initiate the construction of a cable car network that will link several suburbs in Paris's southeast with the subway lines of the city's metro network. And if this cable car line goes well, the Ile-de-France region surrounding Paris could follow it with up to twelve cable car lines currently under consideration.

# Storms, floods and deaths on the rise as climate fallout takes shape in Asia

Gladys Ng

It's no coincidence that we're seeing climate change. Not only do natural disasters cost lives, but they also destroy habitats and increase the risk of future pandemics.

On 20 December 2021, the Macao government raised a Tropical Cyclone Signal No.1 as Super Typhoon Rai (also known as Rey or Odette) roared across the South China Sea. The move marked the second instance in recorded history that the city raised a warning so late in the year. The last time it happened was 46 years ago when Super Typhoon Emma battered Japan and South Korea with 230-kilometre-per-hour winds before veering toward Hong Kong and Macao.

In December, Typhoon Rai petered out before it made landfall in Macao but not before ravaging the Philippines, where the storm killed more than 400 people, injured over 1,000 and caused at least US\$794 million in damages. It is normal for the Philippines to experience several typhoons every year, but most occur during the typhoon season from June to September. In addition, few typhoons in the country's history have swelled as rapidly, leaving residents with little time to prepare or evacuate.

Last year's rare December storm was just one of many grave "milestones" on the climate front in 2021. Globally, the concentration of carbon dioxide in the atmosphere hit a dangerous new peak in May, while July became the hottest month on record.

Macao alone broke eight records when it comes to extreme weather last year. For example, the city recorded the highest number of "extremely" hot days (over 33°C) and the most rainfall in a single day since 1952.

This is no coincidence: research shows that climate change has increased the frequency and severity of extreme weather. Essentially, as the sea surface temperature increases, the additional energy leads to stronger and larger winds and higher rainfall, while rising sea levels make storm surges even more likely.

**This is no coincidence: research shows that climate change has increased the frequency and severity of extreme weather. Essentially, as the sea surface temperature increases, the additional energy leads to stronger and larger winds and higher rainfall, while rising sea levels make storm surges even more likely.**

**In regards to tropical typhoons specifically, studies show that the proportion of “severe storms” (equivalent to Signal Nos. 8-10 in Macao) has grown by 5 per cent every decade since 1979. And if global warming surpasses 2°C, scientists warn that tropical typhoons could intensify by a further 5 per cent while associated rainfall jumps by 14 per cent.**

**Macao has warmed at an average rate of about 0.09°C per decade between 1952 and 2020. In parallel, three out of seven Signal No. 10 typhoons issued since 1968 occurred in the past five years.**

**Climate change not only alters our weather patterns, but also has serious implications for the economy, public health, food security, infectious diseases and habitats. If nothing changes in coming years, we can expect:**

## **Economic Loss**

**The 10 costliest weather disasters of 2021 exceeded approximately MOP 1 trillion (US\$124.7 billion) globally in total, according to a study by Christian Aid. What's more, data from the World Meteorological Organization shows that environment-related hazards caused almost half of the total disasters worldwide recorded between 1970 and 2019, resulting in over 2 million deaths and approximately MOP 29 trillion (US\$3.6 trillion) in losses.**

**In the aftermath of Super Typhoon Hato, for example, Macao suffered a total of MOP 12.57 billion (US\$1.6 billion) in economic losses. That's just one natural disaster in one city – if climate change goes unchecked, scientists and economists expect the global economic output to plummet approximately US\$22.9 trillion (MOP 184 trillion) by 2050.**

## **Increased Risk of Infectious Diseases**

**As surface and ocean temperatures rise, so too does the risk of infectious disease outbreaks. Global warming has caused many species to migrate in search of food, habitat or more suitable temperatures, which means species that have never been in contact before may now intersect and transfer pathogens.**

Similarly, deforestation and encroachment on animal habitats can lead to virus and bacteria transmission from wild animals to humans. For example, the World Health Organization warns that people living at higher altitudes, such as Nepal, will be at greater risk of malaria as climate change continues.

Malaria, which is a vector-borne disease, develops faster at higher temperatures and longer, heavier monsoons will provide ideal breeding grounds for mosquitoes, which carry the malaria parasite. The issue will not just affect the Himalayas: around the globe, scientists estimate that climate change will cause 5 per cent of malaria cases (or 21 million cases) by 2030.

## Food Insecurity

The increased risk of disease transmission will impact plants, too. As the Earth warms, crops are becoming more vulnerable to attacks by pests and pathogens. Over time, this could make it more difficult to produce enough edible crops to feed the world's rapidly growing population.

Besides warmer temperatures, changes in rainfall and extreme weather events also pose risks to food production, quality and distribution, threatening our collective access to food. In the context of Covid-19, extreme weather events around the world led to a 10-year high in global food prices in 2021. Meanwhile, in China, prices for fresh vegetables rose by 30 per cent in 2021 compared to the year prior, due to severe flooding.

## Inhospitable Cities

The global mean sea level rose by 20 centimetres over the past century. That may not sound like much, but it could have catastrophic consequences. Sea level rise causes coastal erosion, contaminates soil, destroys animal habitats and damages underlying urban infrastructure. If the trend continues, sea level rise could render many coastal areas uninhabitable for humans.

Super Typhoon Rai shows just how devastating sea-level rise can be. The deadly storm damaged 1.5 million homes and displaced 144,000 people. If humans continue to emit greenhouse gases at the current pace, the global mean sea level will likely rise 0.6–1.0 metres by 2100. Here in Macao, the sea level is expected to rise by half a metre by the middle of the century.

**It's an inconvenient truth, but all aspects of our lives are inseparable from climate change, from our health to economy, food and homes. When the climate is altered, our lives will be too.**

**We must restore the balance of the climate system. Since the 1980s, scientists have been educating the public about climate change and its potential impacts, while establishing international frameworks and agreements to enable collective action.**

**However, we are not making anywhere near enough progress. In 2015, world leaders agreed to keep global warming under 1.5°C compared with pre-industrial levels by passing the Paris Agreement. Six years later, the world is on track to warm by 2.7°C by the end of the century.**

**The good news is that every individual can make a difference and help keep greenhouse gas emissions from escalating. No matter your age or job, you can take action for climate change and our home. Here's how to help:**

- 1. Live greener. From carrying a reusable water bottle to adopting a plant-based diet, there are many ways that you can embrace a more eco-friendly, low-carbon lifestyle. The key is to create sustainable habits that you can continue for the long-term.**
- 2. Talk about it. Most people have heard of climate change, but surprisingly few accept that it's caused by humans and we have the power to stop it. Research shows that people are more likely to accept climate change facts when the message comes from someone in their social circle. So discussing climate change with friends and family and encouraging them to learn more is a great place to start!**
- 3. Volunteer for the planet. Join a beach clean-up in your local area, volunteer at a recycling station, help a local environmental organisation and invite others to pitch in, too. When more people take part in environmental activities, the movement will grow faster and receive more support – both from the private and public sector.**

**(Published in Macao News)**

# The 2022 Asian Economic Integration Report's Implications for Macau's Digital Trade Development

The development of Macau's digital trade will help to advance Macau's economic diversification, and various recent official documents have also highlighted its importance: the Macau SAR government's second Five-Year Plan and the Master Plan of the Development of the Guangdong-Macau In-Depth Cooperation Zone in Hengqin clearly indicates supporting digital trade to cultivate its new pillar industries; establishing Sino-Portuguese international trade center, a financial services platform between China and Portuguese-speaking countries and an international hub port for digital trade; and advancing the digital transformation of traditional trade.

Recently, the Asian Development Bank has published the Asian Economic Integration Report 2022, which provides an analysis and various suggestions of policy measures for Asia's digital trade development. The report also notes that the Asia-Pacific region displays the best performance in terms of new technology and digital connectivity (e.g. wider internet penetration and research collaboration) and growth in digital services trade, reflecting a triple increase since 2005 and thus reaching over \$1.4 trillion.

To improve the Asia-Pacific's competitiveness in digital trade, the report recommends the six following measures:

- Strong government-industry collaboration (e.g. government's investment in ICT infrastructure and human capital skillsets);
- Increased digital access and inclusiveness;
- Balanced approaches on data flows, protection, and security; ensure national security while not undermining commercial opportunities;
- Investment in human capital to embrace digital transformation;
- A regulatory environment enabling transparency and predictability;
- Fair taxation policies on digital services.

Digital trade is not only a trend in the post-Covid-19 world, it is also the future trend of China. China's 2020 services trade resulted from digital payment has reached \$294.76 billion in US dollars, the country is also ranked the first in terms of Business-to-Consumer (B2C) cross-border e-commerce transactions, with the Pearl River Delta region making up over 70% of the country's cross-border e-commerce exports.

To develop Macau's digital trade, the SAR government could further speed up exchanges and collaboration on digital trade through various platforms (such as The Greater Bay Area cross-border e-commerce resource center and the China-PSC Business Compass). Also, the government could refer to the six measures above and catalyse the establishment of relevant fintech system.



推動澳門的數字貿易發展將有助本地的適度經濟多元化，而近年不同官方文件也支持數字貿易來帶動新產業發展，並在深合區建設中葡國際貿易中心、中國-葡國國家金融服務平台和數字貿易國際樞紐港，推進傳統貿易數字化轉型。

The development of Macau's digital trade will help to advance Macau's economic diversification, and various recent official documents have also indicated supporting digital trade to cultivate its new pillar industries; establishing Sino-Portuguese international trade center, a financial services platform between China and Portuguese-speaking countries and an international hub port for digital trade; and advancing the digital transformation of traditional trade.

GENERVISION HOUSE | 世望屋



為提高亞太區的數字化服務貿易競爭力，《2022年亞洲經濟一體化報告》提出以下六項措施：  
To improve the Asia-Pacific's competitiveness in digital trade, the 2022 Asian Economic Integration Report recommends the six following measures:

- ✓ 加大數字化技術能力培養，發力人力資源數字化轉型  
Investment in human capital to embrace digital transformation
- ✓ 促進具透明度和可預測性的監管環境  
A regulatory environment enabling transparency and predictability
- ✓ 設立數字服務的公平稅收政策  
Fair taxation policies on digital services

GENERVISION HOUSE | 世望屋



為提高亞太區的數字化服務貿易競爭力，《2022年亞洲經濟一體化報告》提出以下六項措施：  
To improve the Asia-Pacific's competitiveness in digital trade, the 2022 Asian Economic Integration Report recommends the six following measures:

- ✓ 加大數字化技術能力培養，發力人力資源數字化轉型  
Investment in human capital to embrace digital transformation
- ✓ 促進具透明度和可預測性的監管環境  
A regulatory environment enabling transparency and predictability
- ✓ 設立數字服務的公平稅收政策  
Fair taxation policies on digital services

GENERVISION HOUSE | 世望屋



數字貿易不僅是疫後世界趨勢，也是中國未來的趨勢。中國2020年數字化交付的服務貿易規模達到了2947.6億美元，更是在企業到消費者（B2C）跨境電商交易方面排名世界第一，當中珠三角地區的跨境電商出口佔全國比重超過70%。

Digital trade is not only a trend in the post-Covid-19 world, it is also the future trend of China. China's 2020 services trade resulted from digital payment has reached \$294.76 billion in US dollars, the country is also ranked the first in terms of Business-to-Consumer (B2C) cross-border e-commerce transactions, with the Pearl River Delta region making up over 70% of the country's cross-border e-commerce exports.

GENERVISION HOUSE | 世望屋



為推進澳門數字貿易，特區政府不但能通過粵港澳大灣區跨境電商資源中心以及“中葡商貿導航”等平台促進數字貿易上的交流合作，也可參考以上六項措施，加快設立相關金融創新規則體制的建設。

To develop Macau's digital trade, the SAR government could further speed up exchanges and collaboration on digital trade through various platforms (such as The Greater Bay Area cross-border e-commerce resource center and the China-PSC Business Compass). Also, the government could refer to the six measures mentioned and catalyse the establishment of relevant fintech system.

GENERVISION HOUSE | 世望屋



## When Athletes Meet the Period

The Winter Olympics have kicked off in Beijing with a lot of effort in promoting gender equality.

A day before the opening ceremony, the Beijing Organising Committee for the 2022 Olympic and Paralympic Winter Games released “Gender Equality Commitment”, which includes:

- The largest number of female athletes participating the Games in history
- During the Games, there will be special female clinics equipped with professional gynecologists and treatment equipment in the three Winter Olympic Villages
- Ensure equal pay for women and men in the same position
- Flexible working hours for pregnant and nursing female employees

Speaking of gender equality, there is one other issue that female athletes face: periods

At the 2016 Rio Olympics, Chinese female athlete Fu Yuanhui once said: "I had my period yesterday, so I'm still a little tired. But that's not an excuse." Her words broke the taboo about the female body by talking openly about period.

For female athletes, period is almost like a rival. Games cannot accommodate to periods, and training cannot be suspended because of it, as the loss of practice time will affect performance greatly.

Due to taboo and sensitivity of talking about periods in society and sports circles, there is not enough research on the relationship between periods and sports performance. The British Journal of Sports Medicine once reviewed 1,382 sports science studies and found that they excluded data on female athletes from clinical studies because of "the complexity of the menstrual cycle." Since women are thought to be more biologically variable, using male participants in studies can yield meaningful results with limited resources. So for many years men were considered adequate alternatives for women, and female participants were excluded from studies.

While many female athletes are affected by their periods, they are not able to cope effectively because their period are deemed a sensitive issue. With a lack of awareness of menstruation, the absence of menstruation is even perceived as a good thing.

Understanding hormonal changes during the menstrual cycle is important for understanding physical performance. To better understand how athletes' training schedules affect their health or recovery, the English Institute of Sport recently began tracking hormone levels in female athletes. If an abnormal menstrual cycle is found, nutritional or other interventions can be used to correct it.

There is still a lack of understanding of the relationship between periods and athletes' physical fitness. If period is no longer a sensitive topic, it can probably help female athletes to understand their body and health better.



## Period Positive Workshop Recap

The “Period Positive Workshop” jointly organized by Genervision House and Period Positive Promotion Association of Macau was a great success .



Congratulations to everyone who participated in the event and successfully made an eco cloth pads!

Apart from making cloth pads, participants were also introduced to the importance of menstruation health and hygiene to sustainable development and the concept of period positive.

Despite the Sustainable Development Goals' emphasis on gender equality and female's empowerment, menstruation is not included in any of the targets or indicators. A main reason is that menstruation is still a social stigma. When menstruation health and hygiene are neglected, it is difficult to become a priority of sustainable development agenda.

To achieve menstruation health and hygiene, it is fundamental to remove the taboo and stigma on period.

**Period Positive is key to this goal:**

- Eliminate menstruation shame
- Break menstruation taboo
- Promotes diverse period products
- Eliminate menstrual poverty



If you are interested in learning more about the period positive topics, check out Period Positive Promotion Association of Macau's social media page.