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### **Major Environmental Policies**

**Dec 2023** 

#### MOENV and NASA Jointly Launch APAC

The Asia Pacific AERONET Calibration and Training Center (APAC) was launched officially by the MOENV on 2 November 2023. The AErosol RObotic NETwork (AERONET) is a program of the US National Aeronautics and Space Administration (NASA), which participated in setting up the calibration platform at Lulin Atmospheric Background Station due to recognition of Taiwan's monitoring capacity. It will help accelerate interactions with Southeast Asian countries in terms of environmental monitoring and remote sensing, improve the quality of monitoring data from sunphotometers and contribute to climate change studies.

The MOENV Minister Shieu Fuh-Sheng pointed out that APAC will help Southeast Asian countries with sun-photometer calibration and also provide the world with valuable climate change data through cooperation with the MOENV, the Central Weather Administration (CWA) and the Taiwan Space Agency (TASA). He recalled as well how the Lulin monitoring station has been sharing data with NASA, the CWA and the TASA for 20 years. With the establishment of APAC, Taiwan is to transform from data receiver to supplier, providing useful data to Asia and Southeast Asia. This will help regional air pollution governance and carbon reduction strategies, and it is believed to be able to elevate Taiwan's status in the world.

The CWA Administrator Cheng Chia-Ping indicated that there has been ongoing cooperation on air quality between the CWA and the MOENV, in particular forecasts and monitoring of PM<sub>2.5</sub> and pollutants highly concerned by the public in Taiwan. The CWA has also been working hand in hand with international counterparts, such as wide utilization of NASA's satellite data, which enhances regional observation with improved accuracy resulted from comparison with ground observation data and optimized observation quality. Administrator Cheng believed that the establishment of the APAC would give Taiwan's researchers more confidence in their own data. Besides optimizing research quality and helping nurturing talents in related field, it will boost Taiwan's competitive edge among the international research field and also assist Southeast Asian countries.

Director General Wu Jong-Shinn of TASA expressed that TASA has been benefited from the technical service of AERONET for a very long time. A good example is the real-time delivery of accurate data from the satellite FORMOSAT-5, and there will be much closer cooperation with the following FORMOSTA-8, which will be not only a AERONET beneficiary, but also a data supplier. He believed that the establishment of APAC will assist Southeast Asian countries in precise calibrations as well as enhance their capacities of data use and analysis through opportunities of international cooperation and exchanges.

The MOENV has been working together with NASA for 20 years. Data of aerosol optical depth (AOD) obtained by the sun-photometer at Lulin Station is part of NASA's AERONET for observation, comparison and verification among global satellites. AERONET adopts advanced remote sensing technology and has more than 1,000 sensing spots across the world. Its air quality database has accumulated more than 3 decades of data that are widely used and applied around the world, often for important evaluations of changes of climate and air pollutions. The MOENV has 7 sunphotometers that are now part of AERONET. They are used for help monitor regional air quality, and some of them are located at Lulin Station, Dongsha Island and Taiping Island of Nansha for

atmospheric background monitoring, greatly benefitting trends of background air quality pollution in Asia, transboundary pollution transmission and studies of long-term climate changes.

The MOENV stated that Taiwan is the leader in Asia Pacific in the development of air quality monitoring technology. The sun-photometers installed across Asian countries have to be shipped back to NASA for calibration every year, and that's why NASA wanted to establish APAC in Taiwan for the service of Asian countries. On one hand, it minimizes carbon emissions and costs for instrument shipping and, on the other, prepares for the increasing number of monitoring stations in Southeast Asia. Taiwan is expected to take up the important role as regional calibration and training center.

Director Hsieh Ping-huei of the MOENV's Department of Monitoring and Information explained that APAC is established in Taiwan due to Taiwan's successful long-term cooperation with NASA, recognition of Taiwan's technical and research and development capabilities as well as the advantage of many mountains in Taiwan taller than 3,000 meters. The unique location of the MOENV's Lulin Atmospheric Background Station of Ministry of Environment is the key to become part of APAC. The AERONET's calibration depends heavily on an outdoor calibration platform up in high-altitude mountains with a clean atmospheric background, a condition which only two AERONET-certified stations, located in Hawaii (at Mauna Loa) and Spain (at Izaña) respectively, are qualified to provide. The Lulin Station will be certified as the third platform up to the required standards. APAC, set up by the MOENV, will take charge of AERONET calibrations for Asian Pacific countries and continue to make vital contributions for air quality and climate change in Asia. Director Hsieh said that Taiwan will be able to calibrate 20 pieces of equipment in the first year. Currently, approximately 50 or 60 pieces of equipment around Southeast Asia will be shipped to Taiwan one by one for calibration, with more expected in the long run. The MOENV will invest more resource for further enhancement as well.

The Ministry pointed out that, in addition to instrument calibration service and improvement of AERONET data quality, APAC provides education and training by helping Southeast Asian countries with technical enhancement in data use and analysis. This in turn facilitates establishment of international partnership. The AERONET-produced data contributes both directly and indirectly to the studies of global air quality and climate change, highlighting Taiwan's sustainable responsibility of and active participation in environmental monitoring.



**APAC launch ceremony** 

# 2. MOENV's First VDR Presented to Show Sustainable Development Achievements

On 28 and 29 November, the MOENV presented its first voluntary department review (VDR) while hosting the Environmental Sustainability Forum. With the theme of "active response to global environmental circumstances and creation of opportunities for Taiwan's transition", the VDR focused on overall environmental governance, aimed to promote sustainable development and net-zero emissions, and explain the MOENV's current achievements, challenges and future perspectives on sustainable development. Local governments were invited to share their VDR implementation and experiences and find out how to localize sustainable development through practical actions in order to create a sustainable and inclusive community.

Before being restructured to the MOENV, in 2020 the former EPA of the Executive Yuan followed the UN's writing guidelines and produced the first VDR, among all departments of government. The report detailed Taiwan's journey of sustainable development and achievements from promoting sustainable development goals (SDGs). After the restructuring, the MOENV has switched its core target from "natural resource operations and management" to "active response to global environmental circumstances and creation of opportunities for Taiwan's transition," stressing more on the overall environmental management and specifically including the goal of net-zero emissions by 2050. The latest VDR examines the results of current sustainable development efforts from the Ministry's perspectives and identifies challenges of sustainable development and net-zero emissions, looking forward into the future with past legacies.

The world and Taiwan now all have specific visions and clear goals for 2050, whose implementation relies on governments' efforts. The Ministry is responsible of promoting SDGs and therefore will

adopt a variety of measures to contribute toward net-zero emissions. Government agencies need to shoulder the responsibility of environmental protection as well as incorporate sustainable development in their organizations and operations. The MOENV aims to work hand in hand with governmental, industry, academic and research sectors and the public through organizational reforms, focuses on different issues, innovations and cooperation, thus creating a more environment-friendly and sustainable society.

The latest VDR of the MOENV examines the results of promoting Taiwan's SDGs in the last three years (from 2018 to 2022). The MOENV has received a beautiful score card in Goal 6 "environmental quality," Goal 12 "circular economy" and Goal 13 "climate actions" with practical results in almost all goals in terms of environment, society and economy. However, there are still challenges of sustainable development and climate changes, particularly in the environmental aspect, so the MOENV will put increasing stress on overall environmental governance and Taiwan's transition toward net-zero emissions, striving toward a future of sustainable development with past legacies.

A number of experts and scholars in sustainable development were invited for this forum in addition to European Chamber of Commerce Taiwan, relevant NGOs and thinktanks, together sharing insights on international sustainable development trends and the key roles of sustainable finance in policy promotion. The MOENV also held talks on five issues, namely environmental research and technology development, response toward climate change, resource circulation for zero waste and chemical substance management, resilience remediation and green sustainability, presenting its efforts as well as joint works with private sector to promote innovated policies. And in recognition of the contributions from corporations, China Airlines and Asia Cement Corp., both having received the National Sustainable Development Awards in 2022, attended the forum as guest speakers and shared how they incorporated climate risks and opportunities in business operation and devised carbon reduction strategies by adopting Task Force on Climate-Related Financial Disclosure (TCFD).

Moreover, six local governments that have completed and published their 2023 VDRs, including Taipei City, Yunlin County, Taichung City, Nantou County, Kaohsiung City and Tainan City, were at the forum to present their results of sustainable development works. The first issue has been produced by some local counties and cities since 2019, and all 22 local administrations came up with at least one issue of their local VDRs by 2021. Contents mainly focus on local efforts to align with the global trends and the UN's SDGs, such as climate change actions and strategies and also transition toward a sustainable and net-zero lifestyle.



Attendees at the MOENV's VDR presentation

# 3. Partial Amendment of Regulations on General Waste Disposal Target Asbestos Wastes

The MOENV has intensified management of sorting, storage, discharge, clearance, and disposal of asbestos wastes generated from building demolitions based on actual operations. Also, as an effort to expand technological capability of asbestos waste disposal, the *Regulations Governing General Waste Recycling, Clearance and Disposal* (一般廢棄物回收清除處理辦法) were partially amended after referencing domestic and international disposal techniques, adding definitions of solidification methods and chemical processing methods.

This amendment specifies that the asbestos wastes generated from building demolitions are to be dampened before sealed in double-layered plastic bags and placed in robust containers to avoid fugitive asbestos fibers. Also, intermediate treatment methods, such as solidification and chemical processing, are added in consideration of domestic and international processing techniques in order to strengthen asbestos waste management and expand disposal practices.

Furthermore, the MOENV amended the *Methods and Facilities Standards for the Storage, Clearance and Disposal of Industrial Waste* (事業廢棄物貯存清除處理方法及設施標準) Article 4-1 on 1 November 2023. The revision sets up unified specifications for storage, clearance and disposal of, thus a consistent system for, asbestos wastes generated by both enterprises currently in operation and non-enterprise sources.



Asbestos wastes from building demolitions are to be dampened and bagged for proper disposal

### 4. Outstanding Enterprises and Personnel Awarded for Achievements in Environmental Protection

The award ceremony for the 5th National Enterprise Environmental Protection Award, the highest national environmental honor, was held on 21 November 2023 at the convention hall of Civil Service Development Institute. Jointly held was the ceremony to award exemplary environmental protection personnel and technicians. The MOENV Minister Shieu Fuh-Sheng presented awards in person to 73 enterprises and 12 exemplary environmental protection technicians with the highest respect and gratitude to these outstanding enterprises and personnel for their dedication and contributions for environmental protection. List of winners and their achievements is available in news issued on the same day in the News Releases of the MOENV website.

#### 73 enterprises selected for the 5<sup>th</sup> National Enterprise Environmental Protection Award

The MOENV has organized environmental protection award events specifically for enterprises for 32 consecutive years to encourage enterprises to assume corporate social responsibility (CSR) and facilitate environmental protection together. A total of 711 enterprises have been awarded so far, and 128 enterprises signed up to compete in 2023, the most in all years. Seventy-three finalists have been selected after preliminary and secondary reviews, field inspections and final review, including four for the Giant Thumb award, three for the Gold , 24 for the Silver award, 34 for the Bronze award and 8 for final nomination. Among them, two received Honorary awards for having won the Silver or higher awards for three consecutive years.

Among participating enterprises' total environmental protection achievements in 2022, in terms of environmental aspect, 98 have been certified for ISO 14001 environmental management system (a growth by 46%), and 74 certified for ISO 14064 greenhouse gas inventory and verification (a growth by 51%). 445 million kWh of electricity and 72.77 million metric tons of water was saved, and carbon emissions were reduced by 238,400 metric tons (equivalent to the amount of carbon absorbed by 615 Daan Forest Parks in one year). In the social aspect, 98 enterprises published their CSR reports (a growth by 55%), and 97 held gender equality training programs. In addition, efforts to follow government policies and engage in environmental protection have led to adoption of 76 public restrooms and 40 kilometers of coastlines were adopted in conjunction with government policy promotion and environmental engagement and 213 beech clean-ups were organized with 7,506 participants collecting 41 metric tons of marine wastes Furthermore, 109 enterprises have answered the call of Green Life for All campaign by participating in green restaurants, green travels and green office). All of the above are excellent models for others to learn from.

#### • 12 exemplary environmental protection personnel and technicians selected.

16 years have passed ever since the first selection of exemplary environmental protection personnel and technicians in 2008. A total of 162 personnel have been selected for the honor up until now. These winners come from a wide variety of government units and professional fields, and their overall professional capacities have become better and better over the years, some even holding multiple environmental protection certificates, for instance those of air, wastewater, waste disposal, and toxic chemicals at the same time. With implementation of environmental education policies, many awardees have acquired certification of environmental education personnel. By combining their original professional background and environmental education, they actively engage in various environmental protection programs, such as environmental education events and river patrols, and advocate awareness of environmental protection.

The MOENV pointed out that it took five members of the review board more than 3 months to select 12 exemplary environmental protection personnel and technicians out of the many outstanding candidates in 2023.

The progress of a country does not rely only on government efforts. The government, enterprises and the general public have to work together in order to transition toward net-zero emission by 2050. It is hoped that these enterprises and individuals' outstanding achievements of environmental protection encourage others to follow and become the driving force for the society to move forward to jointly enhance environmental quality and build a sustainable Taiwan.



**Awardees of the 5th National Enterprise Environmental Protection Award** 



Awardees of 2023 exemplary personnel and technicians

#### 5. Revised National Climate Change Action Guidelines Announced

The Climate Change Response Act (氣候變遷因應法) was promulgated on 15 February 2023. According to its Article 9, the MOENV reviewed and amended the National Climate Change Action Guidelines (國家因應氣候變遷行動綱領), and the amendment was approved by the Executive Yuan. The guidelines are the guiding principles for climate governance in Taiwan. This amendment is the answer to the call of international climate agreements and focuses on both mitigation and adaptation, including net-zero emissions by 2050 as a vision target. Other additions are the

principles of just transition, risk assessment and nature-based approaches. The guidelines will serve as basis to formulate Taiwan's climate change adaptation strategies and Pathway to Net-Zero Emissions, lead the development of low-carbon homeland that adapts to climate risks, and ensure national sustainable development.

The former *Greenhouse Gas Reduction and Management Act* (溫室氣體減量及管理法), promulgated in 2015, required the central competent authority to formulate the action guidelines, and the first issue was approved by the Executive Yuan on 23 February 2017. With the amendment of the *Climate Change Response Act* in 2023, the MOENV assembled central industry competent authorities to review the guidelines according to Article 9 of the act, taking into consideration of the UN Framework Convention on Climate Change (FCCC), its agreement, relevant international agreement, and changes and circumstance within Taiwan. The second revision's draft of the guidelines was submitted to the Executive Yuan, reviewed in the 35th meeting of the National Council for Sustainable Development on 15 August 2023, and promulgated by the Executive Yuan on 3 November 2023 as the important governance directives for climate change adaptation and carbon reduction in Taiwan. The guidelines are available on the Climate Change Administration's (CCA) website at https://www.moenv.gov.tw/cca (click on "Policy Responses to Climate Change").

On climate change mitigation, the guidelines emphasize references of the latest domestic and international scientific studies, analysis and scenario projections on climate change and also inclusion of climate change risk factors. All these are to be utilized to enhance climate change mitigation capabilities, reduce vulnerability and strengthen resilience, conduct climate change risk assessment, and develop early warning mechanisms and systematic monitoring, ensuring the sustainable development of Taiwan. The guidelines cover seven major mitigation policies, namely enhancing resilience of infrastructures; maintaining a balance between water supply and demand; facilitating the rational of land use and bolstering national land resilience; preventing coastal hazards and ensuring sustainability of marine resources; improving adaptability of the energy supply system and industries; securing agricultural production and ensuring biodiversity; and reinforcing the public health and epidemic prevention system and improving health risk management.

For carbon reduction, the guidelines responds to Taiwan's Pathway to net-zero emissions by 2050 and the 12 key strategies by listing six major policies. They include establishing a zero-carbon energy system and enhancing stability and resilience of the power supply network; encouraging the green transition of industries and embracing a circular economy-oriented, sustainable production model; promoting the development of smart and environment-friendly transportation system and encouraging transition to net-zero transportation; building sustainable net-zero structures and promoting a low-carbon transition; boosting the development of sustainable agriculture and improving ecosystem management; and alleviating environmental burdens and building a society of full circulation and use of energy and resources.

In addition, eight complementary policies packages are included to accelerate the successful implementation of climate governance policies. They are facilitating green finance to enhance industries' climate resilience; developing a sound foundation for climate legislation; implementing a carbon pricing system; promoting scientific research and development in five key net-zero technology domains; engaging in climate science and mitigation research; encouraging the public to change its habits and awareness and build consensus; cultivating climate-change talents; and implementing just transition and citizen participation."

The MOENV stressed that the guidelines are the highest directives for national climate governance, as defined in the *Climate Change Response Act*. With the approval by the Executive Yuan,

governments of all levels will follow the guidelines and the act. The central industry competent authorities are to develop its own carbon reduction action plans and also adaptation action plans for areas under their jurisdictions that face climate impacts before submitting them to the MOENV and then the Executive Yuan for approval. Both will also undergo reviews on a rolling basis. Local governments will formulate action plans on carbon reduction and climate change accordingly and work on building capacities of carbon reduction and climate change mitigation across multiple disciplines through horizontal and vertical integration and communication. The final aim is to achieve sustainable social, economic, and environmental development and safeguard the public's health.

## 6. Requirements Revised for Exports of Thermoplastic Wastes Used as Industrial Raw Materials

The MOENV's Resource Circulation Administration (RECA) announced the amended definition of Industrial Wastes Categorized as Industrial Raw Materials on 8 November 2023. The amendment is in response to the Basel Convention's revisions of plastic wastes and aims to ensure that exports of plastic wastes comply with international standards. Under the amendment, effective on 1 February 2024, thermoplastic wastes to be exported are required to be of a single plastic material or type of plastics.

The RECA indicated that this amendment is based on regulations under the Basel Convention as well as an effort to align with the international standards. The draft amendment was preannounced on 15 August 2023 and a public hearing was held on 15 September 2023 to gather opinions from all sectors. Aiming to better manage exports of thermoplastic wastes, the amendment was released by taking into consideration the opinions from all sides in hope to improve management of plastic wastes used as industrial raw materials, ultimately complying with international regulations and avoiding negative impacts on the environment.

### 7. Draft HFC Regulations Preannounced to Mitigate Global Warming

The Ministry of Environment preannounced the draft Management Regulations for Hydrofluorocarbons (氫氟碳化物管理辦法) and the draft Categories of High Global-Warming-Potential Hydrofluorocarbons Regulated Under the Montreal Protocol (蒙特婁議定書列管的高溫暖化潛勢氫氟碳化物種類) on 20 November 2023. This is a response to the Kigali Amendment to the Montreal Protocol, which has newly regulated hydrofluorocarbons (HFCs), a substances of high global warming potential (GWP). Based on practices and schedules put out by neighboring countries, such as Korea and Singapore, it is expected to freeze up HFC consumption from 2024 and gradually start reduction from 2029. It is estimated to reduce baseline consumption by 80 % by 2045, thus joining the world for global warming mitigation.

The MOENV indicated that HFCs are mostly used in refrigeration equipment, cleaning of electronics, fire extinguishing equipment, and foaming materials. HFCs are not substances that damage the ozone layer, but have high GWP, and some types of HFCs have GWP 10,000 times higher or even more than that of  $CO_2$ . That is why all of the Montreal Protocol's parties wish to reduce use of HFCs, and it is expected to slow the rise of global temperature by 2010 down to within  $0.4^{\circ}C^{\circ}$ . The *Climate Change Response Act* (氣候變遷因應法) Article 38 specifies that the central competent authority

may prohibit or restrict the manufacture, import, export, sale, use or emission of high global warming potential GHGs and products that use such GHGs which are regulated by international environmental conventions. Authorized by Article 38, the MOENV drafted the *Management Regulations for Hydrofluorocarbons* and the *Categories of High Global Warming Potential Hydrofluorocarbons Regulated Under the Montreal Protocol* Substances listed for control are 18 HFCs and their mixtures, including HFC-134a, HFC-32, HFC-23, and R-410A, R-404A and R-507A.

Once both the regulations are promulgated, imports and exports of HFCs will not be allowed unless with approval. Previous enterprises using and supplying HFCs need to file an application for approved allocation and then for customs declaration in accordance with import and export regulations. Priority will be allocated to users to lessen impacts.

The MOENV pointed out that Taiwan has been following the Montreal Protocol since 1991 and regulating sales and uses of ozone-damaging substances, such as HFCs, halon, hydrochlorofluorocarbons (HCFCs), and methyl bromide, lowering their uses from the source. Today, HFCs and halon have been banned for impor, HCFC consumption reduced by 99.5%, and use of methyl bromide has been banned except in small amount needed for animal and plant quarantine fumigation. The Kigali Amendment to the Montreal Protocol came in force in 2019, adding HFCs as high GWP substances under control in order to mitigate global warming. As of now, more than 150 countries and regions have submitted their approval documents to the UN and promised to follow the reduction schedule and control regulations according to the Kigali Amendment. Formulation of the HFCs management regulations is an act of Taiwan's voluntary compliance.

#### 8. Travelers Advised on Proper Bedbug Prevention and Control

Infestation of bedbugs has been reported in many countries. Given the frequent international travels, all citizens are warned to wash clothes and check luggage for any sign of bedbugs as they come home from overseas. Do not panic bedbugs are found. Just check the clothes, luggage, furniture and furniture crevices and get rid of them with these four steps, including sunexposure, steaming, catching and washing. Pesticides are to be utilized only as the last resort.

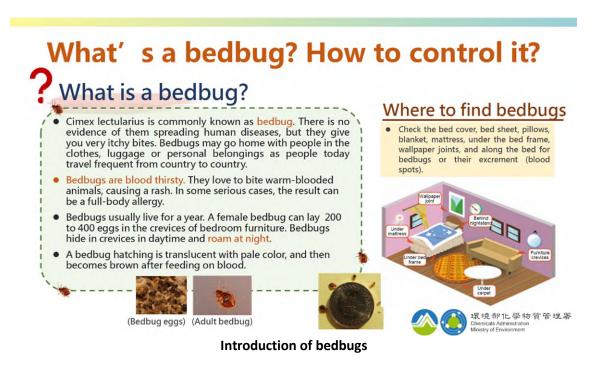
Cimex lectularius is commonly known as bedbug. There is no evidence of them spreading human diseases, but they give very itchy bites. Bedbugs have been identified as a major pest since the past, as they used to spread across many countries. However, it seems they are having a comeback with reports of they having become quite a nuance in Europe, the US and Australia. The possible cause could be the frequent international travels, bringing these bugs hiding in luggage and clothes from one place to the next.

The MOENV urges all travelers to wash their clothes and check luggage for any sign of bedbugs as soon as they arrive at home. Also, second-hand furniture should be examined before being brought home. At home, it is necessary to clean household environments, get rid of unnecessary hoards, minimize wall crevices and check bed covers, bed sheets, pillows, blankets and mattresses for bedbugs or their excrements (or blood spots). Physical preventions, such as cleaning and checking are to be the primary measures, accompanied by chemical preventions. The rule of thumb is physical measures for small areas and chemical measures for large areas.

Straw mats or boxes at home, if found with bedbugs, can be put in a plastic bag with its opening tied out before being put under the sun. These bugs will be dead as the temperature exceeds  $65^{\circ}$ C in the bag. The idea is the same for clothes suspected of bedbugs, which are put altogether in a plastic

bag tied up tightly to trap the bugs and then loaded in the washing machine for a good laundry. Or, a steam iron is a good tool to steam bedbugs to death, and vacuums are useful to capture them. It may be necessary to hire a qualified exterminator in the case of serious infestation.

There are currently permits for six general use environmental agents permits and two restricted use environmental agents, approved by and registered with the MOENV for bedbug control. If the bedbug infestation is out of control and/or affect larger areas, a qualified extermination enterprise may be hired for the extermination. Relevant information is available on the Safe Use of Environmental Agents website of the MOENV's Chemicals Administration (CHA) at https://topic.moenv.gov.tw/evsu/cp-281-10605-dc5fd-8.html. The MOENV advised that there is no shortcut to get rid of bedbugs and that one is to check crevices around for bedbugs and kill them by sun exposure, steaming, catching and washing People are urged to choose legal environmental agents and stay safe during pest control. More information is provided at the CHA's website.



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Bedbug prevention and control

### 9. Draft Revisions of Vehicle Noise Regulations Preannounced to Include UK-Issued Compliance Certificates

The MOENV preannounced draft amendment of the Regulations Governing the Issuance and Replacement of Compliance Certification and Sample Testing for New Vehicle Model Noise Inspections (機動車輛車型噪音審驗合格證明核發廢止及噪音抽驗檢驗處理辦法) to specify that the UK-issued compliance certificates may serve as determination basis.

The regulations have been amended five times ever since their promulgation on 5 November 2003, with the most recent on 3 January 2019. However, compliance certificates for noise inspection from an EU member state are seen as determination basis, and the current regulations do not apply to the UK since it is no longer an EU member state after Brexit. Considering global reciprocity, equivalent technical inspection capacity and reliability, Article 7, Article 5 Appendix 1, and Article 13 Appendix 4 of the regulations are amended to specify that the compliance certificates issued by the UK may serve as the basis of determination.

# 10. Cell Phone Recycling Included into Legislation to Extend Producers' Responsibility

New smartphones are launched every year, and six million cell phones are sold in Taiwan every year. A cell phone contains lots of chemical elements and substance in its parts, but recycling them will large reduce the needs for new materials as well as carbon emissions. The MOENV's Resource Circulation Administration (RECA) is planning legislation of cell phone recycling, asking cell phone brands and retailers to be accountable for recycling, clearance, and disposal, allowing cell phones that are no longer in use to be recycled for reuse. It is hoped enterprises will come up with circulation services such as cell phone leasing or maintenance. The target is to recycle 15% cell phones by 2025 and 30% by 2030.

It was announced in 2006 that cell phones are an item to be recycled by the cleaning squads in Taiwan, to assist the public to recycle cell phones at home that are no longer in use. Starting from 2008, there have been collaborations with cell phone brands and retailers for recycling programs. During this period there have been legislation in USA and EU to hold cell phone enterprises accountable for cell phone recycling, such as E-wastes recycling regulations in respective states of the US, the EU's Directive on the Waste Electronics and Electrical Equipment (WEEE) and Japan's Act on Promotion of Recycling of Small Waste Electrical and Electronic Equipment (廢舊小型電子產品 等再資源化促進法). Statistics of recent years indicate that more 15% of cell phones were recycled in Europe, the US and Japan. The cell phone recycling rate reached a record high of 12% in Taiwan in 2022, but there is still room for improvement.

The MOENV's survey has shown that more than 50% of people keep their old cell phones at home and do not recycle them. A deeper look reveals reasons including not knowing where to recycle them, lack of incentives, and worries about exposure of private information. Seeing this, the RECA has started working on drafting the Regulations Governing Sorting and Recycling Labels Concerning Mobile Phone Manufacturers and Importers" (應標示分類回收標誌之行動電話製造、輸入業者範圍及其他應遵行事項) while discussing with cell phone brands and retailers. The aim is to switch from the previous approach, with only promotion campaigns to encourage people to voluntarily recycle their old phones, to the new one that includes cell phone recycling into legislation and holds cell phone brands and retailers responsible for recycling. Besides continuing the current recycling, such legislation efforts will increase percentage of circulation services, such as recycling, leasing, buyback, or maintenance. The target is set to recycle 15% cell phones by 2025 and 30% by 2030. The draft regulations are expected to be promulgated in 2024.



Recycled waste cell phones