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Waste

Diversified Waste Treatment Policies

There have been a total of 24 incinerators built in Taiwan. The first one was built in 1984, and 19 of them have been in operation for at least 15 years. In order to raise the efficiency of old incinerators and waste treatment, the EPA launched the *Diversified Waste Treatment Plan*（多元化垃圾處理計畫） in 2017. It includes measures for integrating new technology in incinerators and extending their services, setting up three bioenergy plants fueled by kitchen waste, and promoting reuse of bottom ash from incinerators. It is hoped these steps will increase daily waste treatment capacity, lower carbon emissions, and help build a circular economy.

Diversified garbage disposal to raise effectiveness of treatment

For general garbage disposal in Taiwan, nearly 60% is recycled while 40% goes to incineration. Challenges include declining efficiency of incinerators as they approach the end of their service lives, offshore island garbage disposal and adequate diversified disposal channels for kitchen waste. In an attempt to improve the efficiency of old incinerators and to diversify treatment options, on 22 June 2017 the Executive Yuan approved the *Diversified Waste Treatment Plan* proposed by the EPA. It is to be implemented over six years with a budget of NT$15.342 billion from the central and local governments.

The Plan has six focuses: upgrades of incinerator equipment, promotion of regional cooperation, offshore garbage disposal, improving the effectiveness of environmental installations, supervision of garbage clearance, and circular economy policies.

Introduction of new garbage disposal technology and incinerator upgrades and improvements

On 15 May 2018, the EPA held the Symposium on Garbage Incineration Disposal Technology. Professionals from enterprises in relevant fields were invited to talk about incinerator upgrades

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and improvement as well as new waste treatment technology. It was decided that regional platforms could be established to facilitate cooperation in addressing waste treatment problems. Diversified treatment facilities would be set up and effectiveness of existing facilities improved through economic incentives and other assistance provided to help with adoption of new technology.

Significant results since 2017 are as follows:

1.Assessment and planning for incinerator upgrades and construction

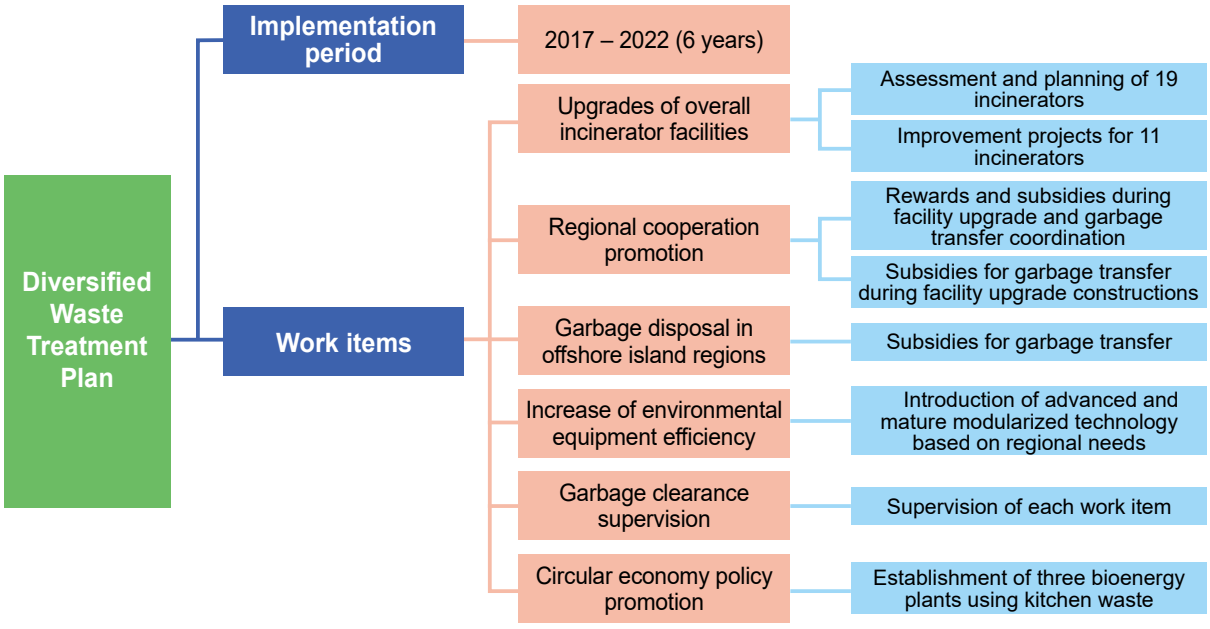
During the first half of 2018, the EPA invited regional bureaus, operators, and supervising units to attend meetings to promote overall equipment upgrades for incinerators and go over application procedures for future upgrades and needed construction. So far assessment and planning budgets have been approved for nine incinerator upgrades.

Plans for transporting waste from three offshore island counties were approved as well. The EPA also helped counties without incinerators to set up their own diversified disposal facilities.

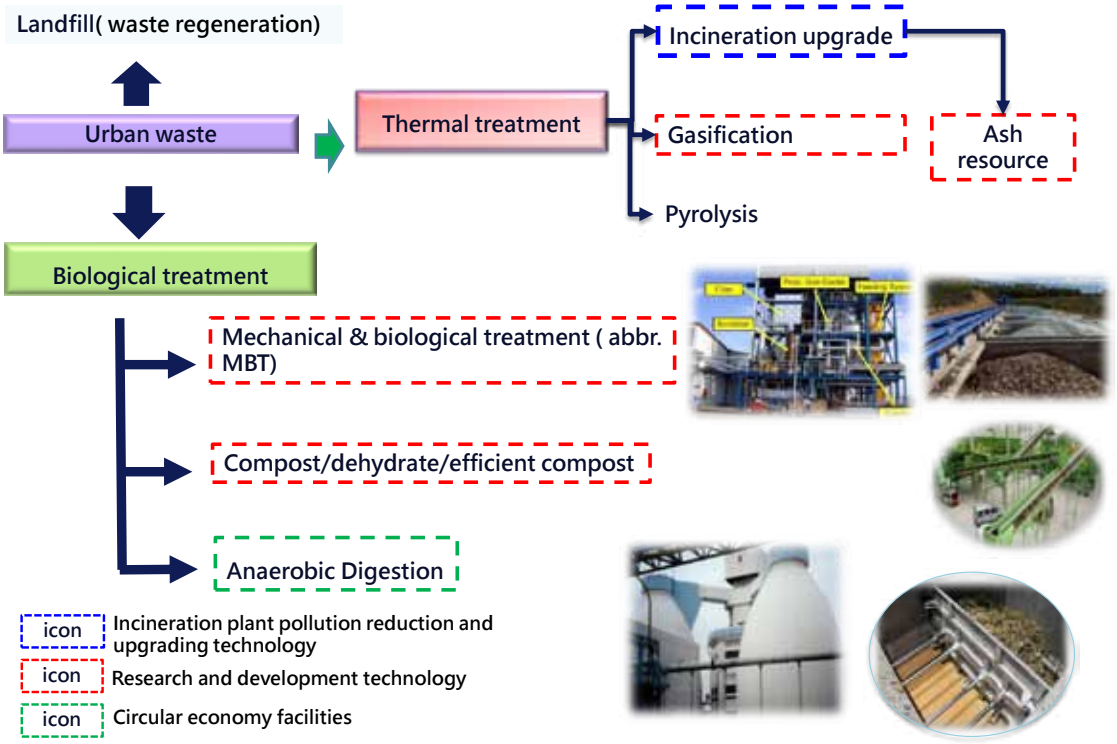
2.Promotion of regional waste reutilization facilities

(1) A NT$1.8-billion project is in place to establish, from 2017 to 2022, at least three bioenergy plants using kitchen waste, which is expected to raise kitchen waste disposal capacity to 180,000 tons/year and reduce carbon emissions by 17,400 tons/year. The project is already in motion with six regional governments, including Taipei City. In addition, construction of Waipu Green Energy Eco Park in Taichung City started on 24 October 2017, with a trial run set for September 2018.

(2)The environmental protection facility efficiency improvement objectives of the plan aim at lightening incinerator loads by utilizing wastes as resources and for energy through measures such as kitchen waste dehydration in pre- and mid-treatment. The EPA approved the establishment of pre-treatment facilities for dehydrating and breaking down kitchen waste, located in Tainan City, Yunlin County, and Yilan County in 2017, and in Kaohsiung City in 2018. This year a high-performance compost treatment facility was also approved to be set up in Lienchiang County. Through these measures, the EPA hopes to increase efficiency of kitchen waste recycling and reuse, and effectively solve garbage disposal problems. In addition, they should lead to positive carbon reduction outcomes and keep Taiwan up with international trends.



Diversified Waste Treatment Plan



Diversified Waste Treatment Strategy Flowchart

3. Bottom ash disposal and reuse

Regarding bottom ash disposal and reuse, the EPA completed trials for the reutilization of granular materials used in maintenance and construction of road pavement in logistics and storage zones. The Information Management Center for Reutilization of Granular Incinerator Materials has been established to ensure thorough source-to-end controls. Each government department is also asked to start using or to increase the usage of granular incinerator materials in infrastructure projects in order to expand channels for the reutilization of waste products and promote resource recycling and reuse.

4. Promoting reutilization of livestock waste as farmland fertilizer

Currently, 211 farms have been approved to send livestock waste for anaerobic fermentation before it is used on farmland as fertilizers. This reduces organic pollution by 5,574 metric tons/year, and NT$10.1 billion is also saved as this is equivalent to building 101 gravel contact oxidation treatment facilities. A total of 921,000 metric tons of fertilizers are used per year on 819.7 hectares of farmland, including 287 metric tons of nitrogen. Together farmers reduce costs on chemical fertilizers of up to NT$13.92 million.

To link reutilized products with farmers' needs, the EPA has held meetings and set up an online platform that can match over 50,000 tons of fertilizers with 468 hectares of usable farmland.

Future outlook

Continuing to carry out the *Diversified Waste Treatment Plan*, the EPA estimates that after all incinerators are overhauled, the combined increase in treatment capacity will be equivalent to an incinerator that is able to treat 900 metric tons/day of waste. The following tasks will also be continually promoted:

- Counties without incinerators will be assisted first to set up diversified local self-operating waste disposal facilities.
- New technology and treatment facilities are encouraged through economic incentives to raise treatment efficiency.
- Industries and new technology are combined to promote industry upgrades and open overseas markets.
- Regions are assisted to set up treatment facilities that utilize kitchen waste for bioenergy in order to improve kitchen waste disposal, open up channels and markets for reutilized products, and promote circular economy policies.

Air

President Announces Amended *Air Pollution Control Act*

On 25 June 2018, after three readings, the Legislative Yuan passed the amendment of the *Air Pollution Control Act*（空氣污染防制法）. It took effect on 3 August after President Tsai Ing-Wen announced its promulgation on 1 August, as a new weapon in Taiwan's fight against air pollution. Air quality is hoped to improve after its implementation.

The EPA pointed out the amendment's five focuses, which are :

- Addition of the good neighbor provision (regional competent authorities collaborate with neighboring county/city governments to map out air pollution control plans in accordance with the control plan set by the central authority)
- Addition of a double-control mechanism covering pollution sources at factories and ends-of-pipes (emission standards are to include hazardous air pollutants, and assessments need to be conducted for health risks; factory-use fuels and components of chemical products containing volatile organic compounds should also be within limits)
- More mobile source control measures (regional competent authorities are authorized to designate air quality protection zones; emission standards for vehicles over 10 years old are tightened for better controls on highly-polluting vehicles; control targets are widened with construction equipment newly added)
- Heavier penalties and lower minimum fine limits (penalties for death caused by pollution have the maximum of a life sentence, with upper limits of criminal fines and administrative fines raised to NT$30 million and NT$20 million, respectively; minimum fines are lowered for motorcycles and vehicles failing regular inspections, as well as for open-air burning)
- Recovery of illegal gains and the whistleblower clause are added while rewards are offered for reporting unlawful activities to encourage reporting of violations. Factories are required to disclose information on pollution emissions for public oversight.

The revision has comprehensively strengthened the Act, from capacities for management and prevention of pollution at source (air quality improvement planning and at-source controls), to end-of-pipe treatment, to emergency response.

Air

Revisions to GHG Offset Regulations Preannounced to Encourage Emission Reduction

To encourage local industries to cut greenhouse gas (GHG) emissions, the EPA has promulgated the *Regulations Governing Greenhouse Gas Offset Program Management*（溫室氣體抵換專案管理辦法）. The offset program provides an opportunity for enterprises to acquire carbon rights through carbon reduction. After analyzing the current situation under the existing offset program, the EPA discovered that most enterprises tend to focus on small-scale reduction. Hence, the EPA is revising the regulations to include microscale projects based on the UN's Clean Development Mechanism (CDM) and its methodological tool. The only requirement for a microscale offset project is proof of voluntary emission reduction. The EPA will also simplify the application and review procedures to increase participation in carbon reduction from smaller emission sources, operators in the transportation industry and the residential and commercial sectors.

The EPA explains that the revisions to the regulations will also help future policy making for the cap-and-trade scheme. For example, one of the revisions excludes targets controlled by the cap-and-trade scheme in order to avoid double counting of emission allowances. As for microscale

projects, the EPA is dividing them into three types: renewable energy projects with an output capacity under 5,000 kW, energy efficiency improvement projects with an output under 20,000,000 kWh per year, and other projects that result in emission reductions of under 20,000 tons CO_2e per year. In addition, the EPA also aims to stimulate the development of emission reduction technologies by simplifying the application procedures for offset projects and encouraging applications from smaller emission sources (e.g. food manufacturers, beverage manufacturers, semiconductor packaging and testing companies), the transportation industry, and the residential and commercial sectors (e.g. business buildings and the accommodation industry).

The EPA also reviewed the original regulations for any insufficiencies and made the following modifications:

- added regulations to the crediting period of projects receiving government assistance
- removed terms that have already been defined in the *Greenhouse Gas Reduction and Management Act* from the glossary
- added regulations on the creation of holding accounts
- added regulations on the extension of crediting period for registered projects

The draft amendments to the *Regulations Governing Greenhouse Gas Offset Program Management* includes a total of 23 amendments, which include 2 additions and 16 revisions of the current regulations. The amendments also include the removal of the affixed encoding table for emission reductions, with a new encoding method to be announced in the future.

Environmental Inspection

Criminal Code Amended to Deter Environmental Crimes

On 20 August, the EPA and the Taiwan High Prosecutors Office (THPO) jointly held a conference on environmental law execution principles after Article 190-1 of the *Criminal Code* was amended. The conference was hosted by EPA Minister Ying-Yuan Lee and THPO Chief Prosecutor Tian-Sheng Wang. There were about 100 participants in the conference, including: Ministry of Justice Political Deputy Minister Pi-Chung Tsai and Director Jun-Li Wang, and chief prosecutors from different prosecutors' offices, local environmental bureaus, etc. The conference's main purpose is to reach a consensus on the execution principles of environmental regulations after the amendment to Article 190-1 of the Criminal Code was promulgated.

During the conference, the participants discussed a few environmental criminal cases, such as air pollutant bypass by Tah Hsin Industrial, illegal waste treatment by Chien Shing Stainless Steel, and illegal wastewater discharge by ASE Kaohsiung K7 facility. It was also pointed out that the owners of the above-mentioned enterprises could have been sentenced to up to seven years in prison and NT$15 million in fines, according to the amendment.

Taking Tah Hsin Industrial's case for example, if the violation had happened after the promulgation of the amendment, the people responsible for the case (including supervisors, agents, employees or other personnel involved in the offense) could have been charged with violating Article 53 of the *Air Pollution Control Act* or Article 190-1 of the *Criminal Code*.

If an enterprise discharges wastewater containing harmful substances that exceed regulation limits or disposes hazardous industrial waste illegally, its operator shall be referred to the Prosecutors Office for further investigation according to the current *Water Pollution Control Act* and the *Waste Disposal Act*. However, after Article 190-1 of the *Criminal Code* was amended, just the behavior itself or the result of the activity can be considered a criminal act. If the case fits the above-mentioned scenario, whether it should be reported to prosecutors and undergo further investigation will be decided through the environmental crime investigation task force established by local prosecutors' offices and the environmental agency-prosecutor-police cooperation

mechanism.

After Article 190-1 of the *Criminal Code* was amended, the EPA has given priority to establishing the execution principles of environmental laws in order to maintain the consistency of the implementation standards among different regulations. By integrating the knowledge and resources from different government agencies and strengthening Taiwan's environmental criminal laws, the EPA has shown its determination to fight environmental crimes.

The EPA hopes to achieve consistent law enforcement across different government environmental agencies and prosecutors' offices. Also, the EPA urges the public to learn about new regulations to prevent accidental violations and to protect the environment by complying with the law.

Water

Revisions to the *Water Pollution Control Act* Announced

Articles were added to the *Water Pollution Control Act*（水污染防治法）to refine the management of water quality. These revisions were done under the President's order on 13 June 2018. The purposes of the revisions were to "adjust the targets for collecting water pollution control fees," "improve regulations against and fines for wastewater or sludge entering groundwater bodies," as well as "adding a basis for punishing deteriorating water quality within a certain period."

The EPA noted that fees for water pollution control are set forth on the principle that polluters should pay in hopes of using the system to reduce the amount of pollutant discharge. The average household, when compared to an enterprise, is largely unable to install the proper equipment to improve the discharge of wastewater. Therefore, collecting a fee from this sort of unit will have limited results in terms of restricting the discharge of pollution.

Fully improving wastewater discharge from households requires the installation of thorough sewage systems. However, a public sewage system is a public construction service that the government provides. To collect water pollution fees from households is clearly unfair. Government policy should focus on encouraging local governments to proactively construct sewage systems, as the construction of sewers is the responsibility of local governments. Local governments should also increase the number of households that can connect to the system and collect usage fees.

Based on the above-mentioned considerations, the EPA made revisions to regulations for water pollution fees found in Articles 11 and 44 of the *Water Pollution Control Act*. The key points of the revisions are as follows:

1. The targets for collecting household water pollution fees have been revised to be households that have not complied and connected to the sewer system within the usage areas of sewage systems as announced in the *Sewerage Act*（下水道法）. Public and community-use sewage systems are excluded.

2. In accordance with the *Sewerage Act* and the *Local Government Act*（地方制度法）, the construction and management of sewage systems as well as the collection of fees are the responsibility of local governments. There are significant differences between sewage systems constructed in different counties or cities. Local governments are authorized to collect household water pollution fees and impose penalties in order to have fee collection based on local conditions and carried out with the usage fees for the area's sewage system. In addition, the revisions adjust the rate of water pollution fees for households to be equal with the fees for sewage system usage. This change can lower the costs of tax collections, raise administrative efficacy and reduce frustrations from incorrect calculations for fees.

3. The entire collected household water pollution fees go to local governments. The fees are to be used for sewage system construction and improving household wastewater.

Groundwater is an important

water resource, and in some regions it is used for fisheries and agriculture or serves as a source for drinking water. In order to prevent wastewater and sewage from entering groundwater bodies and affecting water sources, the EPA removed regulations tied to applying for permits to inject wastewater into groundwater. The highest fine for illegally injecting wastewater into groundwater bodies is NT$6 million. Regulations were added regarding punishments for wastewater or sewage containing substances harmful to human health being injected to groundwater bodies. The offender will be subject to one year to seven years imprisonment and detention and/or a fine of NT$200,000 to NT$20 million.

Besides these revisions, in terms of practical management of wastewater, the EPA added a basis for punishments tied to the limited period for improving water deterioration. When an enterprise discharges wastewater and sewage with emission concentration or the hydrogen ion concentration index exceeding those of the original discharged being punished, it will be fined for each excess. This will prevent enterprises from not improving or controlling the pollution during the improvement period.

International Cooperation

USEPA Principal Deputy Assistant Administrator Jane Nishida Visits Taiwan

On 12 July, USEPA Principal Deputy Assistant Administrator Jane Nishida visited Taiwan and met with EPA Minister Ying-Yuan Lee to promote the Taiwan-US joint International Environmental Partnership (IEP) program. In the second half of 2018, Taiwan and the US will jointly organize events such as the 7th Annual Asia Pacific Mercury Monitoring Training Workshop, the Global Circular Economy Symposium, the International E-Waste Management Network (IEMN) Meeting, and the Global Environmental Education Partnership (GEEP).

The *Agreement between the American Institute in Taiwan and the Taipei Economic and Cultural Representative Office in the United States for Technical Cooperation in the Field of Environmental Protection* was signed by the EPA and USEPA in 1993. Under its framework, both parties would sign implementation plans every two to three years, which has resulted in 12 plans up to this year. This joint cooperation model between the two countries has successfully led to introduction of advanced pollution control technology and environmental management experiences from the US. It has been of tremendous benefit in developing Taiwan's policies and capacities for environmental protection and management, as well as the adoption of environmental quality improvement technology.

USEPA Principal Deputy Assistant Administrator Jane Nishida (left) visited EPA Minister Ying-Yuan Lee on 12 July 2018.

Regarding the challenges of transboundary pollution, Taiwan and the US jointly launched the International Environmental Partnership (IEP) in 2014, aiming to tackle environmental issues requiring cooperation. This shared platform combines experts, scholars, and students from both sides in the hope of creating a healthy and clean environment. To date, about 80 events have been organized with 40 countries participating.

In 2018, the IEP organized several events in May and June. They included the Air Quality Control Strategy Exchange Symposium and preparation meetings for upcoming events such as the GEEP Consultant Group Meeting and the Asia-Pacific Environmental Education Preparation Meeting, the 8th IEMN, and the 7th Annual Asia Pacific Mercury Monitoring Training Workshop.

For the second half of 2018, events planned to be held under IEP include the 7th Asia Pacific Mercury Monitoring Training Workshop, the IEMN, and the GEEP.

International Cooperation

Taiwan and the EU Share Successful Experiences of Circular Economy on 30th Anniversary of Partnership

To mark the 30th anniversary of the Taiwan-EU Annual Consultations, the EPA and the EU jointly held their first circular economy international conference on 4 June as a part of the activities during the European Innovation Week. Both government officials and experts from various countries (including the EU, Germany, Sweden, the Netherlands, Belgium, and Taiwan) were invited. During the conference, they discussed various innovative methods and their successful experiences on topics such as plastic management, waste electrical and electronic equipment, and construction and demolition waste (C&D Waste) management.

The 2018 EU-Taiwan Circular Economy International Conference lasted for three day, including a seminar on 4 June, a cluster matchmaking event on 5 June, and finally a site tour to circular economy facilities and enterprises in Tainan on the last day.

In addition to inviting outstanding local and foreign speakers to give speeches on circular economy in the conference, a trade show was also held outside of the conference venue. Participating companies included Da Fon Environmental Technology, Solar Applied Materials Technology, Far Eastern New Century (FENC), IKEA, RUENTEX, and UWin Nanotech.

During the trade show, the participating companies presented a vast array of applications of circular economy, showcasing Taiwan's efforts and achievements in promoting a circular economy. For example, IKEA put out a variety of products using local brown sugar; Far Eastern New Century collaborated with a sporting goods company to make World Cup jerseys and sneakers out of ocean waste; Da Fon Environmental Technology created products with recycled plastics; and RUENTEX

The 2018 EU-Taiwan Circular Economy International Conference.

manufactured heat insulation renders. To further demonstrate Taiwan's accomplishments in promoting a circular economy, the souvenirs for the conference guests were made from recycled tin. The EPA was inspired by Japan's cellphone recycling project to make medals for the 2020 Tokyo Olympics, and the recycled tin was provided by Rui Da Hung Technology Materials.

On 6 June, a delegation of officials and industry experts led by DG GROW Deputy Director-General Antti Peltomaki joined with EPA Deputy Minister Tzi-Chin Chang at the cluster seminar on circular economy partakers. The seminar also gathered businesses in Tainan working in the field of circular economy to establish mutual understanding of the industry clusters in both Taiwan and Europe and to create more opportunities for future business cooperation.

After the seminar, the group went to Chengxi Refuse Incineration Plant where they were greeted by Chien-San Lin, Director of Environmental Protection Bureau of Tainan City Government, who explained to them that it is the EPA's goal to turn this incineration plant into a circular economy park. Lin also gave a detailed presentation on the generation of solar power and biomass in the plant and the reuse process of bottom ash. The site tour fully demonstrated Tainan City's achievement in circular economy, energy creation, and environmental protection. The other highlight of the day was a visit to Solar Applied Materials Technology (SAMT), a world-leading precious metal and rare metal recycling company. At SAMT, the European delegation was introduced to a special and environmentally friendly technology to extract precious metals.

The EPA pointed out that some companies have already put joint effort in promoting environmental sustainability by voluntarily forming Sea Waste Plastics Circular Economy Alliance (SWPCEA), Green Electronics Resources Alliance (GERA), and Taiwan Construction Resource Circulation Alliance (TCRCS) that focus on waste plastic, waste electrical and electronic equipment materials, and C&D Waste, respectively. The EPA believes that collaborating with these three alliances will be a key step toward realizing a circular economy in Taiwan. Through this international conference, both the public and private sectors showed their determination in expanding cooperative exchanges with other nations and creating a new era of a circular economy.

Environmental Monitoring

Taiwan and U.S. Cooperate to Develop Asia-Pacific Mercury Monitoring Network

Taiwan, the U.S. and the Philippines and their respective environment and natural resources departments worked in conjunction for the first time as part of an International Environmental Partnership plan sponsored by Taiwan and the U.S. The Seventh Asia-Pacific Mercury Monitoring Network Meeting was held in Manila, the capital of the Philippines, on 3-7 September 2018. A total of 70 experts and scholars from 17 partner nations took part in the meeting.

Participants came from Australia, Canada, Fiji, Indonesia, Japan, Malaysia, Mongolia, Nepal, the Philippines, Samoa, Singapore, South Africa, South Korea, Sri Lanka, Thailand, the U.S. and Vietnam. The Taiwan EPA noted that this year's meeting was the first to have Japan hold training workshops, which were beneficial for the expansion of the monitoring network, facilitating the exchange of experiences and strengthening monitoring performance. Last year, Taiwan provided mercury wet deposition samplers and assisted the Philippines with setting up operations for their own mercury wet deposition monitoring network. This year, the Philippines offered tours of newly installed monitoring facilities for mercury, showing the initial results of their system.

During the annual meeting, Taiwan's representatives noted the results of mercury monitoring in Taiwan and shared their experiences of establishing the Center for Environmental Monitoring and Technology, as well as the usage of mercury monitoring technology. Taiwan worked in tandem with the U.S. EPA's plan to establish a mercury wet deposition monitoring network for the Asia-Oceania region in order to enhance the cooperative efforts of Taiwan and East Asian countries in

monitoring mercury wet deposition. Taiwan aspires to transit from a nation importing environmental technology to one that exports it. To do so, Taiwan upgrades participating nations' mercury wet deposition samplers and analytical technology as well as gathers suggestions from international partners for future development of environmental technology and cooperation opportunities.

Recycling

Recycling Fund 20th Anniversary Exhibition Reflects New Values

The EPA's Recycling Fund Management Board held the "Taiwan Recycling Tour—Recycling Fund 20th Anniversary Exhibition" at the Taipei Expo Park. Constructed from recycled PET bottles, this location was specifically chosen to emphasize the international recognition that Taiwan has received for the outstanding results of its recycling efforts. Over 30,000 people visited the anniversary exhibition.

The EPA established the Recycling Fund Management Board 20 years ago as a way of bringing together citizens, recycling/disposal operators and local governments to be part of recycling efforts. The goal was to ensure that there were multiple channels for recycling daily refuse, such as bottles, cans, and old electronics. Back-end disposal enterprises would then process these materials, allowing them to re-enter raw material channels for reuse. In the past two decades, Taiwan has reached a recycling rate of 52.51% in 2017, a significant improvement from 5.87% in 1989.

Visitors to the first floor were able to see the past, present and future of Taiwan's recycling and thus gained a better understanding of the achievements. The exhibition showed football jerseys made from recycled PET bottles, sneakers made from recycled ocean trash, and wetsuits made of waste tire rubber powder, all of which are already well-known products in the world. In addition, a number of unique technologies developed by Taiwan, including waste LCD panel processing and recycling, are key processes in a circular economy of recycling, which reuse "waste" as "green gold." This exhibition showed that Taiwan has promoted resource recycling through the

Foreign representatives impressed by Taiwan's recycling results.

continuous adjustment of "policy and laws, economic incentives, R&D innovation, and network cooperation" to keep the resource recycling system up to date. The system has seen innovation and upgrading through recycling technologies to create higher-value green products, and it also introduces the concept of circular-design into everyday products to change life in the future.

Children view a display showing automobile products made with recycled resources.

Waste

Installation of GPS Devices for Waste Clearance Vehicles to be Completed by 2022

Currently there are over 9000 waste clearance vehicles with GPS devices installed, yet it is still not uncommon for unscrupulous enterprises to use legal loopholes to cover up illegal activity. For example, there have been instances of operators not installing the GPS device, cutting the power to the device or masking the signal in order to circumvent waste disposal regulations.

Thus, the EPA has made amendments in response to these behaviors. The amendments focus on waste clearance vehicles transporting any of the 21 waste substances that have been deemed as easy to dispose of improperly, such as sludge, waste materials from construction projects, and plastics. In addition, the EPA is taking further steps to obtain authorization to install GPS devices on all operating waste clearance vehicles. It is estimated that all disposal vehicles will have the device installed sometime between 2019 and 2022, completing the fourth stage of this process. The EPA increased the stability of GPS-equipped vehicles and the accuracy of vehicle tracking by adding the newest in vehicular technology, for example crash sensors and interrupted power signals, as part of vehicle standards.

The EPA will be holding meetings to provide more information in the near future. It has also set up a hotline for further inquiries: 0800-059-777.

Currently over 9000 waste clearance vehicles have GPS devices.

Chemicals

EPA and MOHW Jointly Inspect Chemical Raw Material Industry

The EPA, assigned by the Office of Food Safety (OFS), the Executive Yuan, launched with the Ministry of Health and Welfare (MOHW) the *2018 Joint Action Plan for Inspecting Chemical Raw Material Enterprises That Also Sell Food Additives*（107 年兼售食品添加物之化工原料業者專案聯合稽查行動計畫）. Control measures that increase environmental and sanitary inspections will be used to prevent non-food grade chemicals from entering the food production chain systematically to ensure food safety and citizens' health.

The EPA stated that the OFS maps out main inspections every year to prevent future food safety incidents. This year the OFS specifically required the EPA to collaborate with the MOHW to conduct joint inspections on chemical raw material enterprises that also sell food additives. A total of 268 enterprises were picked out for inspections. With inspections and assistance, it is hoped to increase voluntary management efficiency to prevent abuse and misuse of non-food grade chemicals to safeguard citizens' health.

The EPA pointed out that cross-departmental inspection has been carried out on 57 chemicals with risks on food safety since February 2017. All chemical raw material enterprises were first targeted for inspections and promotion of four major managements to increase risk awareness. A total of 3,117 enterprises were visited in 2017, and 901 inspections had been carried out by the end of June 2018. Many enterprises were discovered to still have room for improvement on management. Many of them, who also sell food grade additives, considered that their products were for industrial use and thus did not register and report data on MOHW's Food and Drug Enterprise Registration Platform. Such thinking is against the principle of the *Act Governing Food Safety and Sanitation*（食品安全衛生管理法）, which focuses on tracking the food flow. Also, these enterprises may cause food safety risks like chemical raw material misuse or abuse downstream due to poor management from lack of competent authorities' supervisions, assistance, and information.

The EPA stressed that the Plan is a collaboration between and carried out by the central and local governments. They are respectively in charge of inspecting enterprises' management of toxic chemicals, providing assistance on voluntary chemical management, food enterprise registration, random inspections for labels of food additive products, and food additive management. Environmental agencies will put all of their inspection forces on 13 toxic chemicals with risks on food safety announced on 25 September 2017. Enterprises should follow all regulations and fulfill all requirements before the deadlines. Failing to do so will result in fines from NT$60,000 to NT$500,000 according to the *Toxic Chemical Substance Control Act*（毒物化學物質管理法）.

Both the EPA and MOHW emphasized their determination to continue close collaborations on tightened chemical substance management. Operation, controls, and flow tracking on toxic chemicals, chemical raw materials, and food additives are also strengthened. If discovered, all illegal operations and additions will be punished in accordance with the *Toxic Chemical Substance Control Act* and the *Act Governing Food Safety and Sanitation*.

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