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Major Environmental Policies

Environmental Protection Administration, R. O. C. (Taiwan)

http://www.epa.gov.tw

General Policy

Founding of Office of Resource Circulation and Office of Climate Change

Taiwan has been actively working on various resource recycling projects as well as strategic plans for its transformation to zero-emissions. On 1 July 2021, the EPA introduced the Office of Resource Circulation and the Office of Climate Change, through which the EPA will build a more sustainable society in Taiwan by thoroughly reviewing policies and regulations, integrating administrative resources, and effectively promoting recycling and carbon reduction measures.

Aiming at "maximizing recycling and minimizing waste disposal," the Office of Resource Circulation will strive toward total resource recycling, in which all of Taiwan's resources are effectively utilized and waste cut down. Meanwhile, the Office of Climate Change will take a global perspective while working in local communities, and will kick off Taiwan's transformation to zero-emission, joining the world in mitigating climate change.

The Office of Resource Circulation pushes for total resource recycling

The EPA noted that the EU, Japan, Korea, and several other nations have actively proposed many action plans and projects in order to fulfill their resource cycling visions in the next decade. Taiwan, facing challenges such as insufficient natural resources, waste disposal and recycling channels, is also seeking revolutionary and effective ways of recycling and reuse. The Office of Resource Circulation will re-organize the framework and delegated authorities under the existing regulations, evaluate and analyze policies and resources, and strengthen regulations on the management of reusable resources. Its responsibilities are to integrate policies and capacities and enhance resource recycling so that reused products can be properly utilized, aiming to ultimately achieve source reduction and resource recycling.

There are five teams under the Office of Resource Circulation, which respectively work on policy planning, circular industry management, organic resources, inorganic resources, and metal and chemical resources. Taiwan's challenges include the fact that it has insufficient natural resources and imports 76% of needed raw materials. This exposure to risk of its raw resource supplies may lead to economic burdens. To reduce such risk, comprehensive

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evaluation and analysis is needed regarding disposed resources, reutilization technology, and channels that match resources with suitable technology. Certain types of waste that are difficult to be disposed of or lack reutilization potential also face problems such as quality control and appropriate reutilization channels.

The "policy planning" team will evaluate and implement related policies and set up and utilize a recycling database, while the "circular industry management" team is in charge of comprehensive industrial waste management. Meanwhile, the "organic resources," "inorganic resources," and "metal and chemical resources" teams will evaluate and analyze these wastes and target the recycling operations thereof. They will develop reutilization technology and establish channels to match users with needed technology.

The EPA said that, through comprehensive reviews of core recycling operations, it would evaluate and revise relevant regulations, expedite budget integration, and establish an economic development model for continuous material recycling and reuse. In the future, the Office of Resource Circulation will strengthen regulatory controls of reusable resources, facilitate recycling and reuse with financial measures, and levy industrial waste fees through legislation. Other responsibilities include adding both quality standards and certification systems for reused products as well as tracking the uses and whereabouts of products. In this way, suitable places will be found for all reusable products. Under such efforts toward a circular economy and waste reduction and reuse, Taiwan will be able to lower the environmental burdens caused by raw material consumption and gradually achieve resource sustainability.

Office of Climate Change to Lead Transformation Toward Zero-emissions

Human activities and intensity of production across all industries have been much reduced due to lockdowns, remote meetings and limited travel in response to the worldwide pandemic in 2020. However, the EPA pointed out that the carbon dioxide concentration in the atmosphere has continued to rise and break historic records. Not only did the UN clearly state that 2021 is a key year for the future survival of all living organisms on Earth, but President Tsai Ing-Wen also declared on Earth Day, 22 April, that "transformation to zero-emissions by 2050 is the goal of both the world and Taiwan." On the same day, Premier Su Tseng-Chang ordered to re-evaluate the reduction goals set in the *Greenhouse Gas Reduction and Management Act.* Additionally, it is imperative for Taiwan to take on all relevant initiatives now that many countries have adopted various reduction measures. One of those is the Carbon Border Adjustment Mechanism, which the EU plans to promulgate in 2023.

The EPA explained that the founding of the Office of Climate Change is Taiwan's response to the international community's expectations regarding climate change mitigation. The office's establishment also fulfills a promise of the president and the premier on carbon reduction in Taiwan. The first task of the Office of Climate Change after its founding is to complete the revision of the *Greenhouse Gas Reduction and Management Act,* followed by more communications about the carbon levy system, about which stakeholders are very concerned. Moreover, the EPA will begin formulating the interdepartmental action plan on climate change mitigation.

The four teams under the Office of Climate Change will respectively target policy planning, emission management, reduction actions, and climate change mitigation.

Main tasks include revising the *Greenhouse Gas Reduction and Management Act,* formulating zero-emission measures, setting up a carbon pricing mechanism, and properly dealing with the international border adjustment mechanism. The office will work on strengthening public awareness and education on carbon reduction, developing reduction measures and adjusting disclosure systems for industries, and integrating interdepartmental mitigation efforts.

Climate Change

EPA Begins Legislative Revisions to Expedite Carbon Reduction in Line with EU's Carbon Bill

On 14 July, the European Commission announced Fit for 55, a series of legislative proposals that aim to reduce carbon emissions by 55% by 2030. The draft Carbon Border Adjustment Mechanism (CBAM) garners the most global attention out of these proposals. The EPA has declared to keep up with the international carbon reduction efforts and that it will, as part of its determination in carbon reduction, put carbon pricing in action, revise the *Greenhouse Gas Reduction and Management Act* (溫室氣體減量及管理法), and set up a carbon levy collection system. Another task is to figure out how the CBAM calculates carbon contents in products to help Taiwan's industries understand their products' carbon contents and prepare to adapt to the Mechanism.

Climate change is a global challenge to which every country has to respond. The EU is setting up stricter reduction goals and intensifying reduction efforts. The CBAM's purpose is to urge the EU's trade partners to absorb the exact carbon cost of industries inside the EU to avoid "carbon leakage," where industries move to countries or regions with more relaxed controls on emissions. Not only will it maintain the competitive edge of industries within the EU, but it can also encourage trade partners to lower carbon emissions.

According to the EPA, the EU's CBAM would gradually be carried out as trial projects starting 2023 based on the draft. It will be applied only to products with high risks of carbon leakage in the early stage, like imported steels, aluminum, cement, fertilizers, and electricity. Importers will be required to register only the emission amount of imported products (a product's carbon emissions = carbon contents of the product per unit * number of imported units) without paying any fees. After it is officially launched in 2026, importers must purchase CBAM certificates from the EU as fees for imported products' carbon emissions. The CBAM certificates' prices are determined based on the average closing price from the weekly carbon rights auction in the EU's Emission Trading Scheme (ETS).

From the explanations above, the lower a product's carbon contents per unit are, the fewer certificates will be required to purchase. Nevertheless, importers are to present documents as proof of their products' carbon contents. A default data set by the EU will be used to determine carbon contents in the absence of such documents. That makes calculating carbon contents in a product a critical task. Moreover, fees are waived if importers can prove to the EU that their products' carbon cost has been paid in the production countries.

On 14 July 2021, the European Commission announced Fit for 55, a series of legislative proposals that aim to reduce carbon emissions by 55% by 2030. (https://www.consilium.europa.eu/en/policies/eu-plan-for-a-green-transition/)

Besides amendments of the *Greenhouse Gas Reduction and Management Act* and improvement on the carbon pricing mechanism, the EPA will add provisions concerning authorization for carbon levy collection. Carbon levy will only be used to develop low-carbon technology in Taiwan and help the local industries transition into low-carbon operations, which will help increase their strengths when competing in the world while lessening the CBAM's impacts on them. In addition, the EPA will study the CBAM's carbon calculation formulas to help local industries understand the carbon contents in their products and gradually set up a mechanism that inspects the carbon contents in products made in Taiwan.

The EPA pointed out that, besides the EU, countries like the US and Japan have expressed the possibility of collecting carbon levies on imported products. Measures to lower the risks of carbon leakage will be inevitable in the future global trades. Therefore, the EPA will closely follow the development of international carbon reduction trends and help local industries prepare by regularly communicating with stakeholders and finding response actions and solutions best suited for Taiwan.

International Cooperation

Video Conference between Taiwan and USEPA Heads Strengthened Partnership

On 17 June 2021 Taipei time, Taiwan EPA Minister Tzi-Chin Chang met virtually with Michael Regan, the USEPA's new administrator, thanking his agency for its long-standing cooperation and assistance. Minister Chang stated that staff training and technological exchanges laid the foundation for both countries' positive collaboration, hoping the Taiwan-US partnership will continue and deepen.

The video conference was hosted by Chen-Chung Deng, Minister Without Portfolio of the Executive Yuan's Office of Trade Negotiations. Participants from the USEPA included Administrator Regan and Acting Assistant Administrator Jane Nishida. Taiwanese participants were Taiwan's Representative to the US Bi-Khim Hsiao, Minister Chang, and corporate representatives from AU Optronics, Delta Electronics, China Steel Corp. (CSC), and TaiPower. Both sides discussed issues about climate change and environmental protection and hoped to work together on climate change, children's health, and environmental justice under the International Environmental Partnership (IEP) program.

The conference began with Administrator Regan's introduction of US environmental policies, then went on with Minister Without Portfolio Deng's remarks with mentioned the Biden administration's emphasis on climate change and environmental production. He elaborated on Taiwan's efforts in these areas in recent years. For example, CSC has actively promoted its five major green strategies and made great achievements in developing environment-friendly steel products, which contribute to energy conservation and carbon reduction from raw materials, production, final products, and customer utilization. It not only creates many business opportunities but also enhances its corporate social responsibility. Another instance is TaiPower, which has to develop green energy and smart grid and is even expected to venture into a carbon-capturing power plant that has immense business transformation capacity. All of these reflect the corporations' determination and actions to lower their carbon footprints.

Afterward, Minister Chang noted that the IEP program, jointly promoted by the Taiwan EPA and the USEPA since 2014, has helped Taiwan and other countries establish bilateral or regional cooperation as well as allowed Taiwan to be of help to the world. Regarding climate change, President Tsai Ing-Wen officially declared on 22 April that Taiwan would aim for zero-emission by 2050. Now the Executive Yuan is coordinating all ministries to research and assess potential access to zero-emission and also accelerating its communication with the private sector.

Many corporations in Taiwan voluntarily take part in many global carbon reduction initiatives. Delta Electronics participated in EV100 and RE100, both international

Taiwan EPA Minister Tzi-Chin Chang delivered a speech at a video conference between Taiwan and USEPA heads

initiatives on electric vehicles and renewable energy, becoming the first high-tech manufacturer in Taiwan that has promised to achieve by 2030 goals set by RE100. Furthermore, it leads enterprises in their own supply chain to jointly work on zero-emission. Meanwhile, AU Optronics has devoted itself to environment-friendly manufacturing by developing innovative technology and a circular economy. It has been on the constituent list of the Dow Jones Sustainability Index, one of the world's three major environment, sustainability, and governance indices.

International Cooperation

Taiwan and EU Jointly Hold Online Seminar on EU's Green Deal

Together with the European Institute for Asian Studies, the Taipei Representative Office in the EU and Belgium held a webinar, "The EU Green Deal: Prospects for Taiwan-EU Circular Economy Cooperation." The event was hosted by Charles Huang, Director of Circular Taiwan Network, and ended on 16 June 17:00 Taipei time. Minister Tzi-Chin Chang, the Deputy Director-General of the EU Department of Environment Joanna Drake, and Member of European Parliament (MEP) Alexandr Vondra were invited to speak.

In his opening speech, Minister Chang talked about the close collaboration between Taiwan and the EU in the area of circular economy. Taiwan is currently working on the structure and regulations to promote recycling. As the EU aims to achieve carbon-neutrality in 2050, Taiwan is reviewing and formulating carbon reduction channels to reach zero emission by 2050.

Deputy Director-General Joanna Drake mentioned that Taiwan-EU's collaboration on circular economy which has lasted for years is the core of the conversation with bilateral exchanges as the future focus. Since the European Green Deal is the center of the post-pandemic recovery, she hopes to turn the climate and environmental challenges into opportunities to reach an all-win situation for society, the economy, and the environment. Then MEP Alexandr Vondra, in his speech, said that Taiwan is an ideal partner in the EU's promotion of circular economy because Taiwan is an important supplier in its technology industry, a highly developed country, and is also actively establishing its circular economy. Besides bilateral collaboration, Taiwan and the EU can expand such collaboration into

The "EU Green Deal: Prospects for Taiwan-EU Circular Economy Cooperation" held online

the whole world.

Director Charles Huang pointed out that, as the linear economy can easily lead to profitting privatization and result in the public footing the outer costs, a circular economy ought to be systematically established. This will help enhance resource values and utilization and promote product-sharing services. Everyone should together mitigate climate change and face challenges with cooperation models under a circular economy.

Several guests were also invited to speak at the seminar, including Kestutis Sadauskas, Director of Office of Circular Economy and Green Growth under the EU Department of Environment, Ing-Ing Lai, Director of the EPA Department of Waste Management, and Chien-Zhi Chen, Chairman of BenQ Materials Corp. These guests discussed and shared thoughts on issues like "Green Deal in the EU: New Circular Economy Action Plan," "Taiwan's Promotions and Methods in Circular Economy: In the Case of Plastic," and "Circular Economy and Green Transformation in Industries."

Director Sadauskas brought up the European Green Deal passed in March 2020, with which the EU expects to promote a green economy and develop sustainable technology by 2030 and increase the total GDP in the EU. The policy aims to ensure the minimum requirements in green public procurements so that products made of secondary materials become common in the market. Director Lai mentioned Taiwan's Resource Recycling Action Plan, which promotes recycling in production, consumption, waste management, and secondary product market. With plastic as an example, she cited the plan's promotion of reused plastic materials, reduction and recycling of plastic packaging in retail shops, and circular textiles. And lastly, Chairman Chen talked about the importance of industries' voluntary research of green materials, e-waste management and recycling, and corporate social responsibilities.

Air Quality

Air Pollution Emission Report Released to Evaluate Control Results

With 2019 as the baseline year (TEDS11.0), the Taiwan Emission Data System was published on the EPA's TEDS website (https://teds.epa.gov.tw/) on 1 July for downloads. Compared with TEDS10.1 (with 2016 as the baseline year), the latest report shows a significant decrease in air pollutant emissions.

First compiled by the EPA in 1992, the TEDS is updated every three years (with the first year of the cycle as the data baseline) with reference to the three-year models of advanced nations like the US. With preparation beginning in the fourth quarter of 2019, TEDS11.0 covers every region in Taiwan (the main island, Penghu, Kinmen and Matsu). It includes an investigation on emissions from pollution sources in respective industries. The central and local governments collaborated, and together took a year and nine months to complete it, which is a year less than the time spent on previous versions.

Comparison with the latest TEDS (baseline year in 2019) and

the one prior (baseline year in 2016) shows a 26% decrease in particulate matter ($PM_{2.5}$), a 40% decrease in sulfur oxides (SOx), a 22% decrease in nitrogen oxides (NOx), and a 10% decrease in non-methane hydrocarbon (NMHC). Monitoring results also reveal a drop in average annual $PM_{2.5}$ concentration by nearly 20% (from 20μg/m^3 in 2015 to 16μg / m^3 in 2019). The above reflects outstanding achievements resulted from the EPA's various air pollution control programs in recent years.

The purpose of establishing TEDS is to help formulate pollution control strategies in government policies, verify reduction results, and serve as references in the simulation of emission increases from significant pollution sources. Other than updating all emission information at all times, the EPA will adequately implement the air pollution control programs from 2020 to 2023 and work with local governments to carry out 27 measures under four areas: stationary, fugitive, and mobile sources and comprehensive strategies. The end goal is for the average annual $PM_{2.5}$ concentration to drop to 15μg/m^3 as required by the air quality standards.

Sustainable Development

Online Marine Waste Workshop Inspires Youths from Nine Countries to Take Sustainability Actions

Responding to the UN Sustainable Development Goals (SDGs), the EPA uses Taiwan as a base to help people understand local environmental problems and the various threats the world faces and, in turn, inspire them to find solutions and take action. Therefore, the International Environmental Issues and Education Workshop was held again in 2021 for international students in Taiwan. However, not all event venues were opened to participants because of the COVID-19 pandemic. The first stage of the workshop took place on 8 and 9 October, with students from India, Indonesia, Malaysia, the Philippines, Vietnam, Poland, Panama, Peru, and Taiwan participating in a virtual classroom to learn about Taiwan's efforts and environmental education on marine wastes.

Targeting international students studying in Taiwan, the EPA's International Environmental Education Activities have just entered the second year. It is an important training program of Taiwan as the Asian-Pacific center for the Global Environmental Education Partnership (GEEP). The Taiwan EPA and the USEPA have been pushing the GEEP since 2014, aiming to promote regional and international environmental education and facilitate collaborations to combat environmental challenges that confront all nations. In 2019, the GEEP Asian-Pacific Center was set up in Taiwan to promote environmental education work in all Asian-Pacific nations.

The training activity this year centered around marine waste, a transboundary environmental issue. The idea of a circular economy was also introduced to help international students better understand Taiwan's experiences, strategies, and feasible solutions in tackling the problem. They would serve as reference cases for other countries when they deal with the same environmental issues, which helps broaden Taiwan's influence in this area.

The activity began with a pre-recorded video message from Judy Braus, Executive Director of the North American Association for Environmental Education (NAAEE). She spoke about the GEEP's core value and mission before going on to encourage all participants to "believe in the power of education, which can make change for the future."

The online event offered a wide array of courses that included government policy formulation, companies' strategies to promote corporate social responsibility, and civil organizations' promotion of environmental education. Students were able to advance in their knowledge and skills by learning how to deal with marine wastes and relevant practices. Compared to the event in the previous year that proceeded in a conventional model with only one-way communication, this year's program put attendees in different groups, allowing them to have dialogues with students from different countries and share possible solutions for various environmental issues.

Resource Recycling

Improvement and Strengthening of Recycling and Access to Recycling

The Four-In-One Recycling Policy devised first in Taiwan has been implemented for a quarter of a century. Its achievements include, for example, a household garbage recycling rate of 56.4% and a reuse rate of 85.89%. In response to the drastic increase of plastic and paper tableware and utensils since 2020 due to the pandemic, various recycling measures have been adjusted. Through expansion of recycling and raised accountability, and by strengthening recycling channels, Taiwan has enhanced its recycling capacity and continued toward zero waste.

The EPA has since January 1997 encouraged communities to sort household garbage. A complete recycling network has been established by working with local authorities (cleaning crews), recycling enterprises, and the Recycling Fund to recycle and reduce household-generated small-size waste.

Since its implementation by the EPA in 2005, mandatory sorting requires all household waste to be sorted into resources, kitchen waste, and garbage, which are then separately collected or disposed of by cleaning crews. In addition, fees are collected for garbage bags used in certain counties, cities, and regions, which helps cut down the amount of garbage and enhances sorting, recycling, and reuse.

The results of promoting general waste recycling include recycling up to 5,807,647 metric tons of general waste in 2020 (consisting of 5,278,079 metric tons of recyclables and 529,567 metric tons of kitchen waste). A total of 58.84% of general waste was recycled.

Taiwan's daily garbage generation per capita since 1998 has decreased year after year. By 2020 the drop was 61.12% compared to the year with the highest daily garbage generation. The percentage of recyclables among the garbage also gradually fell, with the recycling rate at 62.71% in 2020.

With resource recycling and sustainable use as the policy core, the EPA will keep striving for resource integration by promoting garbage reduction, recycling, and reuse. The following are the improvement measures:

Expanding recycling and raising accountability

(1) Announcing newly added articles of responsibility

1. Waste lubricants, plastic lining and foam cases have been announced as recyclables after evaluation. Fees are collected from manufacturers and importers as recycling and disposal costs.

2. Evaluating the expansion of control for refrigerators and freezers as articles of responsibility. Refrigerators and freezers used in business venues were not listed as articles of responsibility. However, in recent years these items of large capacity (approximately 100 to 200 liters) are often sold directly to the public in retail stores. The EPA has begun evaluating the feasibility of listing them as recyclables in response to the future recycling and disposal requirements of large waste items.

(2) Setting responsible enterprises' levied fees and streamlining fee collection

The rate of levied fees for small-scale responsible enterprises (with levied fees less than NT$100,000/year) were amended to simplify the process. The EPA first audits and calculates the amount of levied fees and then notifies enterprises of the payment. Some 95% of the amount of waste audited in the first year is used in fee calculation to simplify the fee collection process. The revised *Responsible Enterprise Regulated Recyclable Waste Management Regulations* (應回收廢棄物責任業者管理辦法) were announced on 29 June 2020, followed by the announcement of the revised document formats on 13 July 2020. This revision has designed the operation procedures and set-up, and thoroughly maintains the operation registration system. A total of 11,261 responsible enterprises benefited in 2020 because of the revised rate of levied fees.

(3) Adjusting subsidy rates for plastic containers and paper tableware in response to the pandemic

In order to prevent the short-term decline in raw material prices from affecting the willingness to

recycle waste plastic containers, subsidies for specific waste plastic containers were raised in May 2020. Also raised at the same time were the subsidies for waste paper tableware and utensils (from NT$7.25/kilogram to NT$7.86/kilogram) in anticipation of increased use amid tightened pandemic control. Both adjusted rates are effective from 1 May to 31 October 2020.

On 30 October 2020, it was announced that the adjusted subsidies for PET containers, PP or PE containers, non-foam PS containers and waste flat containers (PET or PVC) would continue until 30 June 2021. Subsidies for waste paper tableware and utensils will not be extended as they were properly recycled and disposed of throughout the pandemic.

Strengthening recycling channels

(1) Optimizing and building recycling plants

In 2020, 69 projects concerning preliminary evaluation, planning, and design of regional storage sites and sorting plants were approved. It included 51 for optimization, 15 for construction, and three for sorting plants. Ongoing planning and detailed designs are gradually being completed, and it is estimated that 35 construction projects will commence in 2021.

(2) Replacing old recycling vehicles

1. A program was implemented in 2020 to subsidize the replacement of old recycling vehicles. One hundred thirty-six old vehicles were phased out and replaced with diesel-powered ones compliant with Phase-6 emission standards. One hundred and ten more vehicles are expected to be replaced in 2021.

2.The EPA has also been implementing a major Executive Yuan-mandated program to replace old garbage collection and recycling vehicles and purchase special-use machinery and personal safety gear. One hundred-fifty recycling vehicles in use for over 15 years have been replaced with new ones compliant with Phase-6 emission standards.

(3) Strengthening local recycling

1. Promoting self-employed recycler welfare by increasing subsidies

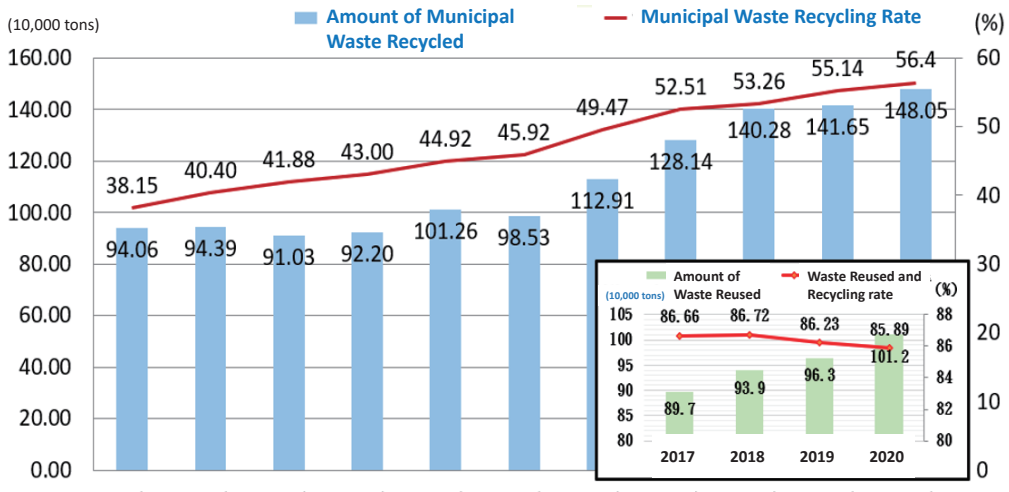
The upper subsidy cap for individual self-employed recyclers has been raised from NT$3,500/month to NT$5,000/month. It is effective from 1 May 2020 to 30 June 2021 to mitigate the COVID pandemic's economic impact on those working at the front line of recycling. Such subsidies will be extended until 31 December 2021 to take care of all registered self-employed recyclers.

Throughout 2020, a total of 20,936 people benefited, who had collected 9,215 metric tons of recyclables and 72,800 items (mostly electronics). Compared to 2019, the number of people who benefited grew 6.1-fold (3,444 people), and the number of recyclables 8.9-fold (1,030 metric tons).

2. Assisting recycling participants

Recycling is promoted by coordinating community residents, recycling enterprises, local cleaning crews, and the Recycling Fund. The results in 2019 and 2020 both exceeded the set goals: 55.14% in 2019 (goal of 53%), 56.96% in 2020 (goal of 53.5%).

Enhanced supervision and individual assistance have been continually provided to entities



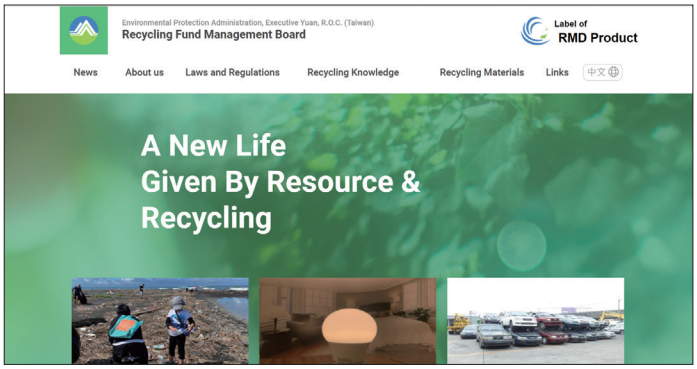
Waste recycling results in recent years

with poor recycling performance. A program has been implemented in 2021 to improve these entities' recycling performance by setting recycling goals, conducting visits to innovative recycling sites, and evaluating performance related to poorly recycled items.

(4) Promoting recycling in apartment complexes within communities

To further the four-in-one recycling program and open up diverse recycling channels, the EPA has since 2021 strengthened basic-level recycling capacity by promoting recycling in apartment complexes. Property managers of communities, apartments, and high rises are assisted to set up recycling stations, and their staff are encouraged to work and communicate with cleaning crews. Moreover, guidelines have been set up for random inspections of recycling operations and to carry out mandatory garbage sorting correctly so as to improve recycling performance and sorting quality.

It is expected that 64 communities will be established as recycling facility demonstration sites and that they will randomly inspect and assist 809 apartment complexes across Taiwan. The results will be part of the evaluations for recycling in communities, apartments, and high rises.



https://recycle2.epa.gov.tw/EN/index.html

Future prospects for reaching the goal of zero waste

To pursue sustainability of resources, Taiwan's garbage disposal policies focus on source reduction and recycling. All resources are to be efficiently recycled and reused by applying green production and consumption, source reduction, recycling, reutilization, and renewable use, which will gradually lead to the end goal of zero waste.

General Policy

Measures Devised to Provide Relief and Convenience during the Epidemic

The EPA took the initiative to take stock of relevant environmental regulations such as those for permit renewal, regular test reporting, or onsite inspections that cannot be implemented due to the COVID-19 epidemic and may thus cause severe impacts on enterprises, and devised measures to provide relief and convenience to help enterprises survive the impact of the epidemic.

As the Central Epidemic Command Center raised the national epidemic alert to Level 3 on 19 May 2021, all local governments simultaneously tightened and expanded epidemic prevention restrictions, causing a great impact on people's daily lives, and making some businesses unable to comply with relevant regulations. Therefore, the EPA is formulating measures to provide relief and convenience for the public, and will soon send notifications to local environmental bureaus and relevant industrial associations to ask them to follow them.

The first measure is an extension of the validity periods of permits issued to public or private establishments. If permits expire between 14 May 2021 and 31 December 2021, the expiration dates are uniformly postponed to 31 December 2021.

The second measure is to allow the extension of correction periods for applications for all categories of environmental permits during the epidemic. The relevant competent authorities can extend the correction periods according to the needs of individual cases up to a maximum of 90 days.

The third measure is to allow new permit or permit change applications to be reviewed mainly through document examination. If applications require review by scholars or experts in person, they may be conducted through video conferencing or recording.

In principle, onsite procedures such as inspections or verifications will not be conducted. Because of the epidemic, public or private establishments or enterprises may also be exempt from conducting test runs or functional tests. Reviewing authorities may refer to the application document and approve an application with emissions that are 80% (or specified otherwise) of the estimated pollution emissions. If there is falsified information in the applications submitted by the establishments or enterprises, the reviewing authorities reserve the right to revoke the permits. After the epidemic eases, relevant pollution emissions shall be verified onsite (such as through onsite auditing or inspection). If emissions are found to be significantly different from the approved levels, the establishments or enterprises will be asked to submit permit modification applications.

The fourth measure is related to regular tests. If any control regulations (such as those for air pollution, water pollution or waste) require tests be conducted in the second quarter (April-June) and third quarter (July-September) of 2021, the test results obtained in one of these quarters can be used to represent the results of the other, thus skipping one quarter's tests. If regulations require tests to be conducted once every half year, the test results obtained in the first half of 2021 can be reported as late as 30 September 2021.

The fifth measure is to adjust the timing for the report and payment of pollution control fees. The deadline is postponed by one quarter; that is, the report and payment that should normally be done in the second quarter can now take place between 1 July 2021 and 31 October 2021.

Air Quality

Revision Preannounced for Emergency Measures to Prevent Serious Worsening of Air Quality

The *Regulations Governing Emergency Measures to Prevent Serious Worsening of Air Quality* was revised and announced in 2017. In light of improved general air quality, the EPA has begun making amendments to further enhance the effectiveness of response measures. Considerations include the needs of local governments concerning the practices of upwind counties, whose cooperation is needed in order to ameliorate deteriorating air quality over large regions.

The EPA pointed out that the Regulations mainly specify joint responses among private and public venues and relevant units regarding poor air quality caused by weather conditions over large regions. Yet, in recent years, air quality has seen great improvement, and there are far fewer occurrences of the Air Quality Index (AQI) reaching 200 or more. The focus has now shifted to the number of red alert days, when AQI reaches 150 or higher, as a major concern. Although various response measures to occurrences of poor air quality have already been put in place by the central and local governments, the revisions further specify these measures as formal regulations. Air quality forecasts are also expanded, including forecasts for the next three days instead of only the next day, so that the whole response mechanism can be launched in advance for early preparation. As for industrial response measures, new amendments mandate coal-fired generation units, steel smelting, the petrochemical industry, and both state-run and private incinerators to adhere to specific emission percentages in order to lower output or pollutants during periods of poor air quality.

The EPA further explained that another revision focus is to target local governments, which are mandated to notify the public to take actions to safeguard personal health. A good-neighbor clause has been added stipulating that upwind counties are required to help lessen harm to affected counties by adopting control measures. Now depending on regional circumstances, local governments are authorized to implement additional control measures on factories and vehicles. It is emphasized that adoption of these measures are for tackling poor air quality within a short period; long-term improvement still requires both the central and local governments to closely follow the multi-faceted strategies under the *Air Pollution Control Act*. Cooperation of all residents as well as all public and private premises in Taiwan are also needed.

Soil and Groundwater

Operation Guidelines Announced for Pollution Sites, Zonal Improvement and Land Use

The EPA has set up the *Operation Guidelines for Pollution Site Zonal Improvement and Land Use* (污染場址分區改善及土地利用作業原則) in hopes of speeding up clean-up progress and encouraging responsible parties to actively ameliorate pollution. The Guidelines clearly define zonal operations in different phases, allowing areas completing pollution amelioration to be utilized first. A mechanism is also in place to allocate the proceeds from land use into further clean-up efforts to ensure that polluted land is actively improved and adequately managed, resulting in enhanced environmental quality.

The EPA noted that the Guidelines serve as reference for local environmental bureaus when they submit applications based on the land reuse regulations under the *Soil and Groundwater Pollution Remediation Act* (土壤及地下水污染整治法). Planning of pollution site remediation and utilization should cover the entire area that includes the pollution sites and control areas. Moreover, applications can be submitted only if land utilization can proceed after zonal pollution remediation satisfies the control requirements. This will allow local environmental authorities to evaluate and manage appropriately. A mechanism is also in place to continually allocate proceeds from zonal land use into remediation work, ensuring polluted lands are actively improved and controlled.

Moreover, due to geological or other factors, there is a consideration that it may take longer to improve certain polluted plots of land until they are compliant with soil and groundwater pollution control standards. As a result, special regulations have been set for use of specific land types and their risk management. The purpose is to safeguard the public from exposure to pollutants via measures such as stopping pollution, limiting activity areas, or banning groundwater use. Also, it can help achieve environmental protection and sustainable land use.

The Guidelines include the following focuses:

1. Stipulation purposes
2. How remediation plans and goals are formed following land use
3. Operation regulations on zonal improvement and utilization of pollution sites
4. Required documents and evaluation standards regarding land use applications
5. Evaluation procedure for the risk assessment group
6. Remediation plan evaluation principles
7. Regulations regarding modification of land development and use after remediation goals are changed
8. Risk communication after remediation goals are changed
9. Procedure guidelines after remediation plans are approved
10. Supervision and audit regulations regarding site risk management (Article 10)
11. Treatment when remediation is not implemented based on approved plans or when secondary pollution is caused

Major Environmental Policies
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