

Major Environmental Policies

Nov 2023

1. Inter-agency Collaboration Strengthens Food Safety Controls

Food safety is a top priority in Taiwan's governance efforts. For better food safety control, the central government has been implementing a food-safety policy with five features since June 2016. The five features are source control, reestablishment of production control, strengthening of inspection, increase of liability for unscrupulous food manufacturers, and public oversight of food safety. They serve as the guidelines to enhance food safety in Taiwan and, through inter-agency and cross-disciplinary collaboration, help bring together the government, industries, and the public to safeguard the safety of food from farms to dining tables.

Origin

The first aspect of the food safety policy is a collaborative effort among various government agencies. In 2013, the Executive Yuan convened relevant agencies to identify 57 chemical substances with food safety concerns that have been associated with food safety incidents in Taiwan and neighboring countries. These substances include three agro-pesticides regulated by the *Agro-pesticides Management Act* (農藥管理法) and eight toxic chemicals regulated by the *Toxic and Concerned Chemical Substances Control Act* (毒性及關注化學物質管理法).

Starting from 2016, the former EPA's Toxic and Chemical Substances Bureau, now the Chemical Administration (CA) under the MOENV, has been actively evaluating other substances. The CA listed 13 substances including ronalite as toxic in 2017, as well as seven substances including Sudan Red G (and a total of 14 items including other types of Sudan dyes) as toxic chemical substances in 2018. Subsequently, on 20 August 2021, hydrofluoric acid was announced as a hazardous chemical substance of concern after evaluation, followed by five substances including lead monoxide also announced as such on 12 January 2023.

As for other chemical substances posing potential food safety risks, those that are pre-industrial chemicals not to be used in food production, are regulated by the Ministry of Economic Affairs (MOEA). Those under the same category as food additives and food-cleansers are managed by the Ministry of Health and Welfare (MOHW) according to the *Standards for Specification, Scope, Application and Limitation of Food Additives* (食品添加物使用範圍及限量暨規格標準) and the *Sanitation Standards for Food Cleansers* (食品用洗潔劑衛生標準). Both sets of standards are under the *Act Governing Food Safety and Sanitation* (食品安全衛生管理法). Nevertheless, the MOENV's CA continues to monitor these substances.

Source control: Over 3,000 visits a year to enterprises handling chemical ingredients

To enhance source control of chemical substances with potential food safety risks, since 2017 the CA, in collaboration with local governments, has conducted over 3,000 visits annually to enterprises handling chemical ingredients. These efforts are to ensure proper implementation of four major controls. The first is separated storage of chemical raw materials and food additives. The second is clear labeling, which chemical raw material packaging is to clearly indicate prohibition for use in food, drugs, feed, fertilizers, and other purposes. The next is detailed information on usage, which sellers are required to inquire about the purpose of purchase for 57 identified chemical substances with potential food safety risks and caution buyers against using them in food. The final aspect is records for flow tracking, keeping records including buyer information, transaction volumes, and inventory levels. These measures collectively serve to prevent chemical substances with potential

food safety risks from entering into the food supply chain. The CA regularly convenes meetings with the MOEA, the Ministry of Agriculture (MOA), and the MOHW to assess and propose recommendations for adding new chemical substances with potential food safety risks. They would address the possibility of abuse or misuse of these substances in the food supply chain, which could pose a risk to human health. These discussions also explore reasons for tightening inter-agency controls outside the regulatory framework in order to better control such chemical substances.

Controls tightened for emerging psychoactive substances, explosive precursors, and those listed under international conventions

In addition to chemical substances with potential food safety risks, the CA has strengthened controls on emerging psychoactive substances, explosive precursors, and substances listed under international conventions. Nitrous oxide (laughing gas), prone to abuse by youths, and its ingredient ammonium nitrate was declared as chemical substances of concern in 2019 and 2020, enhancing control measures to prevent abuse. Hydrogen fluoride (hydrofluoric acid) was listed as a hazardous chemical substance of concern in 2021. And on 12 January, lead monoxide and four other chemical substances with food safety risks, two emerging psychoactive substances (1,4-butanediol and boldine dimethyl ether), as well as eight explosive precursors like ammonium nitrate and calcium ammonium nitrate were declared chemical substances of concern. To ensure food safety, protect public health, and maintain safety, the CA continues to assess and regulate substances in need of tightened controls.

Assessing and regulating chemical substances to strengthen control

In the future, the CA will continue to assess and regulate chemical substances based on their hazardous characteristics, domestic operational situations, and control needs. Currently, following instructions from the Executive Yuan, the CA is assessing the possibility of announcing 2-chloroethanol, a chemical substance with food safety risks and gamma-butyrolactone, as substances of concern for control. Moreover, to align with the trends outlined in the Stockholm Convention, on 11 July 2023 perfluorohexanesulfonic acid, its salts, as well as related compounds, were preannounced to be regulated as toxic chemical substances. Control efforts on chemical substances will be further strengthened in the future.

2. Revised Regulations Announced to Enhance Emission Certification and Inspection Capacities

Keeping track of carbon emissions and their sources is fundamental to greenhouse gas reduction. On 5 October, the MOENV announced the revised *Management Regulations for Greenhouse Gas Certification and Inspection Organizations* (溫室氣體認證機構及查驗機構管理辦法). This aims to enhance inspection capacity while ensuring inspection quality in response to the needs of inspections and verifications from diverse reduction mechanisms on carbon emissions.

The MOENV stated that the amended Article 38 of the regulations will come into effect starting on 5 October. The key points of this amendment are as follows:

1. Revision of certification organizations' qualifications and addition of certification management Taiwan's greenhouse gas certification and verification system has matured. With subsequent certification needs, the revisions require certification organizations to establish evaluation systems based on ISO/IEC 17011 and get certified by or sign relevant agreements with international or regional organizations. Additionally, newly added regulations specify obligations to which the MOENV-commissioned certification organizations must adhere. This is to assist commissioned

certification organizations in carrying out certification tasks and allow the MOENV to monitor the accreditation status of inspection organizations.

2. Introduction of diverse expertise to expand involvement in inspections

With a more diverse range of verification needs, the revisions have modified qualification criteria for inspection organizations. The restriction on foreign inspection organizations to establish local branches has been lifted, allowing interested professional organizations to engage in greenhouse gas verification activities based on market demand. Moreover, educational and professional backgrounds for inspection personnel have been expanded to include expertise in fields such as agricultural and livestock management, forest management, and other areas in order to enhance personnel's verification capacity.

3. Enhancement of qualifications and training regulations for inspection personnel

To ensure inspection personnel's professional capabilities, under the amendments, inspection personnel are mandated to undergo and pass necessary basic training and on-the-job training. The basic training must consist of a minimum of 40 hours of courses related to standards, techniques, or specific inspection items concerning greenhouse gas inspections. In addition, amendments stipulate that inspection personnel are to possess work experience or verification records in various types and specific items of carbon verification, hence enhancing individual personnel's capacities in specific professional fields.

4. Revisions of requirements to be complied during inspection operations

Inspection organizations are to assess the impartiality of the operations and avoid conflicts of interest before undertaking verification tasks and assign approved personnel to carry out the tasks after undertaking them. The personnel must set up substantial thresholds and develop inspection plans that meet reasonable assurance levels. Detailed records of onsite verification processes must be maintained. Verification results are to first undergo an internal technical review before compiled into comprehensive summary reports, which by mandate must be co-signed by both the inspection and review personnel. It is prohibited for the same lead inspectors to conduct verification tasks continuously for six years, and inspection records must be retained for six years.

5. Adjustment of permitted inspection items

The organizational inspection items have been reduced from 27 to 14 now after existing permitted inspection items were consolidated, updated, and expanded. Such adjustment is in accordance with Taiwan's carbon emission patterns and emission situations from manufacturing processes of different industries and also takes into account new methods to cut down emissions or increase carbon sinks. Land transportation, water transportation, and aviation transportation have been merged into the category of transportation as they mainly emit through fuel consumption. Also, inspection items on the basis of special case have gone from 16 to 14. This will better facilitate corresponding management of inspections on regulated enterprises for their work of emission inventory and registration, as well as inspections on voluntary emission reduction projects undertaken by them.

Furthermore, the revised regulations will come into effect upon its announcement. Inspection organizations having already obtained permits are reminded to submit applications to the MOENV to renew permits as well as revise inspection operation plans and lists of personnel within six months from the effective date to avoid penalties.

3. Emission Verifications Tightened for New Vehicles and Added with Road Tests

On 25 October 2023, the MOENV announced the amended *Regulations Governing Issuance, Revocation, Cancellation of Compliance Certification for Gasoline and Alternative Clean Fuel Engine Vehicle Emissions Inspections* (汽油及替代清潔燃料引擎) and the amended *Test Methods and Procedures for Exhaust Emissions from Gasoline Vehicles* (汽油汽車廢氣排放測試方法與程序). The revision highlight is an addition of provisions for Real Driving Emissions (RDE) in vehicle testing. In addition to laboratory testing, future new vehicle models undergoing exhaust emission inspections will be required to also undergo testing under simulated real driving conditions on the roads. This approach aims to make vehicle emissions testing closer to real-world driving situations, allowing emissions to be more realistically assessed and also for substantial reductions without tightening emission standards, thereby contributing to the improvement of air quality.

The MOENV explained that the introduction of RDE testing aligns with the current practices in the European Union and neighboring Asian countries. The implementation of a 1+1 regulatory approach means that vehicles need to comply with the existing laboratory exhaust emission standards as well as on-road vehicle pollution emission standards. As the testing method closely resembles real-world driving conditions, manufacturers are to further scrutinize and enhance vehicle pollution control technologies to pass these tests. This is expected to significantly reduce actual pollution emissions and hence lead to improvement in air quality. Moreover, the new regulations mandate that manufacturers will report only on-road vehicle pollution emissions starting from 2025, and that from 2027 onward, vehicles are to gradually comply with emission standards of respective phases year after year. This step-by-step approach aims to mitigate impact on the industry while further lowering vehicle pollution emissions.

In addition to RDE, the new regulations introduce measures related to automobile dealers, including third-party inspections, abolishment of the "model year" system, and encouragement of adopting the Worldwide Harmonized Light Vehicles Test Procedure (WLTP).

For vehicle model exhaust testing compliance verification, introduction of third-party inspections refers to incorporate verification conducted by third-party inspection organizations into the current mechanism where certificates are issued based on results produced by a testing organization. Such practices result in establishing a fair and objective inspection process and strengthening the user-pays principle. While government budget is reduced, it provides a monitoring system with which quality of a vehicle's pollution emission controls is ensured before it is off the lot.

Abolishment of the "model year" system is based on the change that a vehicle's model does not affect its exhaust, which means that there is no need to reapply for a new vehicle model exhaust testing compliance verification every year. This change is expected to cut down the number of current cases by over 50%, effectively reducing administrative burdens with simplified administrative convenience.

Lastly, regulations have been amended to include vehicles tested under WLTP so as to encourage automobile dealers to adopt it to control quality of in-use vehicle models during mass production. This initiative allows replacement of actual on-road testing with laboratory testing and therefore encourages automobile dealers to phase out outdated testing methods, ultimately preventing underestimation of vehicle emissions and encouraging production of cleaner vehicles.

Along with amendments of the two regulations, the MOENV will further grant reasonable transition periods and give incentive measures to automobile dealers for introducing differentiated management. Such measures help encourage automobile dealers to accelerate their transition toward net-zero emissions and simultaneously lower the emissions of air pollutants and greenhouse gases, thereby creating a win-win situation for both the environment and the economy.

4. Taiwanese and German Experts Discuss Transition Toward a Net-Zero Lifestyle

In order to facilitate Taiwan's transition toward a zero-waste lifestyle and align with international standards, the MOENV and the German Institute Taipei jointly organized on 25 October the *2023 Taiwan-Germany International Seminar on Transition Toward a Zero-Waste Lifestyle*. Experts and industry representatives from Taiwan and Germany were invited to share relevant ideas so as to enhance promotion and implementation of lifestyle changes. MOENV Deputy Minister Shih Wen-chen, Director of the German Institute Taipei Hubertus von Morr, and Mariana Nicolau, Senior Project Manager from the Collaborating Centre on Sustainable Consumption and Production (CSCP) in Germany, launched and attended the seminar.

The MOENV stated that CSCP Senior Project Manager Ms. Nicolau was invited to share experiences in promoting lifestyle changes, aiming to raise public awareness of green living and facilitate discussions on the practical aspects of lifestyle transformation.

Ms. Nicolau pointed out that merely disseminating knowledge is not enough to change people's behaviors because of the numerous obstacles in transforming knowledge into actions. Therefore, it is necessary to employ effective communication, understand the needs of various groups, and identify motivations for behavioral change for implementation of suitable strategies, environmental infrastructures, and incentives. And sharing with friends and family can significantly facilitate changes in the public's habits. Additionally, General Manager Yvonne Tsai of O'right, a cosmetic company in Taiwan, talked about how her company makes use of internal workplace design to help guide its employees to adopt changes. For instance, its efforts in promoting the use of electric vehicles among employees include reserving dedicated parking spaces specifically for electric vehicles and placing them in a close proximity to the clocking-in machine. Furthermore, foot-operated faucets are installed in the company's restrooms, replacing sensor-activated ones that rely on continuous power and hence lowering energy consumption.

On issues related to a circular and sharing economy, Dr. Chen Hsien-ting from Merck KGaA shared his company's use of smart liquid crystal windows to control indoor temperatures and lighting for energy efficiency. In terms of corporate governance, the corporation has introduced smart manufacturing and promoted science education, utilizing plastic waste to make stationery items. Furthermore, Dr. Tsou Wen-po from Taiwan Toy Library Association shared their approach that is similar to how a library operates. Unneeded toys are collected, arranged, and made available to children in disused spaces in schools, as well as brought to disadvantaged kids in remote areas by a van that also serves as a mobile toy shop. Moreover, Chang Yu-chin Taiwan branch manager of EPEA, a German design company that subscribes to the cradle-to-cradle idea, shared its design concept. He spoke about how to use good product design to achieve a circular economy, such as disassembling materials like plastic or glass for reuse in the manufacturing process, and extending producers' responsibilities through a circular recycling system.

As for goals and strategies for transition toward a zero-waste lifestyle, Dr. Laura Spengler from Ökopol Institute in Hamburg, Germany, mentioned that the German Federal Environmental Agency (UBA) provides the public with a personal carbon emission calculator. The UBA also promotes carbon reduction actions through posters, graphics, and website information. Additionally, Engineer Sun Po-ling from the Industrial Technology Research Institute spoke of their efforts to develop a preliminary framework for calculating personal carbon emissions in Taiwan by studying indicators of individual carbon reduction currently used abroad. This framework includes case studies related to diet, travel, and lifestyle, serving as a reference for facilitation of lifestyle transformation policies.

This seminar facilitated discussions among representatives from NGOs and enterprises in both Germany and Taiwan on how to raise public awareness of green living and change of habits and also experiences in promoting a sharing economy among industries. All of this will provide valuable insights for refining future lifestyle transformation strategies.

5. RECA Aims to Recycle 80,000 Phones via Promotion Event

Mobile Phone Recycling Month was back! On 26 September, the MOENV's Resource Circulation Administration (RECA) promoted the Mobile Phone Recycling Month, which ran throughout October. This year special incentives for corporate participation and more prize options were introduced in addition to doubling the collection points from last year. Moreover, focus was placed on promoting recycling and reuse of resources after collection as well as enhancing material utilization. Enterprises were urged to take part in establishing a seamless recycling process with regulatory measures, namely, from product design, repair, to reuse of secondhand phones. This will ultimately help lead the whole society to the end goal of sustainable development.

The promotion ran throughout the entire month of October, 2023. Not only did participants complete the recycling process at designated locations and register their information for a lucky draw for additional discounts at participating recycling channels, but they also stood a chance to win prizes worth a total of NT\$300,000. For every three discarded mobile phones recycled, participants could earn an extra entry for the lucky draw!

The RECA was set up on 22 August 2023, aiming to promote sustainable consumption and production, enhance efficiency of resource use, and increase the value of waste management. It adopts three major strategies: green design and source management, circular recycling and utilization of energy and resource, and waste quantity balancing and management. The two driving forces in its policy framework are connecting top-, mid-, and low-end industries to create a smooth circular network, and developing innovative technologies and systems. All of these serve to promote recycling and reuse of waste resources, extend product lifespans, lower the use of raw materials, and create carbon reduction benefits.

Corresponding with the RECA's establishment, enterprises were invited to join the promotion of the mobile phone recycling month this year. Apart from expansion of recycling channels, efforts are underway to include enterprises' recycling systems in relevant legislation. The initiative will involve integration of both phone recycling and repair in the design of a "circulation rate," which, along with targets set for each year, will be used to push enterprises to incorporate circular and sustainable concepts at the beginning stage of product designs. In addition, the new legal framework will be designed to urge enterprises to extend the lifespan of mobile phones via refurbishment and sale of secondhand devices, thereby reducing resource consumption.

The Mobile Phone Recycling Month was initially launched in 2019 by the then-EPA with the result of collecting 23,000 devices. The initiative has steadily grown, reaching 72,000 devices collected in 2022, nearly tripling the initial figures. This growth also brought Taiwan's total recycled mobile phones last year to 730,000 units. This year, the recycling channels have been expanded to include four more categories of enterprises, including retail stores, online shopping platforms, stores of communication services, and secondhand phone shops. With their participation, there are now approximately 13,500 collection points. The goal is to collect over 80,000 mobile phones in October alone, resulting in cutting down annual CO₂ emissions by 11,200 metric tons, equivalent to the carbon absorption capacity of approximately 101 Daan Parks. Moreover, the event will promote recycling of metals, creating an annual production value of NT\$30.38 million.

6. Optimized Recycling Facilities in Kinmen Launched

The MOENV has completed the optimization project of a resource recycling storage facility in Kinsha Township, Kinmen County. The facility was launched on 12 October. County Secretary-General Hsieh Shih-chieh, on behalf of County Commissioner Chen Fu-hai, attended and presided over the inauguration ceremony, accompanied by RECA Deputy Director-General Lin Chien-san, Director Yang Chien-li of the Kinmen County Environmental Protection Bureau, and Mayor Wu Yu-chia of Kinsha Township.

The resource recycling storage facility in Kinsha Township was repurposed from an old military camp. Due to increased tourism and the subsequent rise in recyclable materials, the outdated recycling facility could no longer handle storage and sorting of recyclables in the area. Therefore, in 2022 the MOENV approved a subsidy of NT\$21.38 million for an optimization and improvement project of the facility. Other than optimizing the basic environmental facilities, the project installed two additional sorting and transporting machines so as to enhance the work environment, ensure the safety of personnel, and improve operational efficiency. It is estimated that the recycling capacity has been increased by more than 30 metric tons annually.

Deputy Director-General Lin stated that the RECA strives to support personnel on the frontline and collaborate with local governments to promote recycling, following the Executive Yuan's program to improve environmental facilities of the cleaning squad. The overall program covers five major welfare aspects, including attire, transportation, access to washing facilities, housing, and safety, and the optimization and improvement project comes from the part emphasizing on housing and hence aims to enhance basic recycling facilities. Since 2020, 49 projects have been approved for subsidization, totaling over NT\$990 million. Completion of all these projects will result in procuring 42 recycling machines for local governments, benefiting more than 4,180 cleaning squad members, increasing annual recycling volume by over 445,000 metric tons, generating an additional annual revenue of over NT\$100,004,000 from sales, enhancing more than 214,000 square meters in total, and utilizing over 44,000 tons of recycled aggregates.

Moreover, assistance has been provided to integrate regional recycling facilities. The completed Recycling and Circular Education Center in Wugu District, New Taipei City now handles recyclables from neighboring areas (Luzhou District, Sanchong District, and Wugu District), processing approximately 12,000 metric tons annually. The recycling and storage facility in South District of Taoyuan City, and the local area's regional facility, still in construction, are expected to increase annual capacity by 1,000 metric tons of recyclables annually upon completion.

Looking ahead, Deputy Director-General Lin emphasized the continuous implementation of optimization projects to improve environments of recycling and storage facilities, increase recycling capacity, and support frontline cleaning squad. Efforts will also be made to encourage local authorities to attract the private sector's participation and investment in essential public recycling infrastructure projects through public-private partnerships, ensuring the ongoing and sustainable recycling initiatives.

7. Policies to Retire Old Motorcycles Improve Air Quality by 30%

Aiming to address air pollution from mobile sources, relevant authorities are taking measures to increase usage of public transportation, retire old vehicles, and promote adoption of electric vehicles. Facing the public's urgent call for improved air quality, the MOENV has been carrying out policies urging replacement of old vehicles with new ones or switch to electric vehicles due to the fact that pollution from older vehicles has a significantly higher impact on the environment compared to new or electric ones. Such policies have led to a 30% improvement in air quality

from 2017 to 2022, aligning with the expected outcomes.

The MOENV explains that improving air quality requires a multi-faceted approach. Whether the purpose is to enhance usage of public transportation or promote replacement of old vehicles with new or electric ones, different strategies need to be implemented based on various public transportation infrastructures. Specifically, efforts to combat motorcycle emissions, before 2019, focused on reducing air pollution and increasing public acceptance of electric motorcycles. Consequently, subsidies were provided to encourage purchase of new electric motorcycles. From 2020 to 2021, policies were shifted to replacing old motorcycles manufactured before 30 June 1997 so as to reduce emissions from highly polluting old motorcycles. Currently, aligning with the 2050 net-zero emissions policy, the MOENV offers subsidies for retiring old motorcycles, encouraging people to switch to public transportation. If individuals choose to purchase electric motorcycles, the MOENV will seek developers under environmental impact assessments (EIAs) that have matching needs to purchase benefits gained from such purchases, namely, carbon and air pollution reduction. According to data from national transportation air quality monitoring stations, the levels of PM_{2.5} and nitrogen oxides (NO_x) have been on a declining trend in recent years. The PM_{2.5} level dropped from 20.1µg/m³ in 2017 to 14.9µg/m³ in 2022, and the NO_x level from 46.27 ppb to 34.0 ppb, reflecting a nearly 30% improvement. These figures indicate that the aforementioned policies have achieved the goal of improving air quality.

The MOENV emphasizes that air quality improvement policies are to evolve along with time and focus on lowering air pollution, reducing private vehicles, encouraging the use of public transportation, and creating an environment friendly to electric vehicles without stressing one over another. These efforts are essential to collectively build a low-carbon, low-polluting transportation environment.

8. Three Venues Certified as Environmental Education Facilities after Passing Review

On 30 October, the MOENV held its first environmental education certification review meeting after its organizational restructuring. The meeting was convened by Ms. Shih Wen-chen, the MOENV's first female deputy minister. Three environmental education facilities were certified during the review, including the Marine Life Propagation Station in Penghu County, the Neihu District Wastewater Treatment Plant in Taipei City, and the Kaohsiung City Seafront Water Resource Center. The MOENV stated that these certified environmental education facilities have a social responsibility to promote environmental protection, resource conservation, environmental social and corporate governance (ESG), providing the public with enjoyable environmental education experience in a safe and professional environment.

The Marine Life Propagation Station in Penghu County is the only facility in Taiwan that produces seaweed seedlings for aquaculture farmers. In recent years, it has been involved in coral reef restoration and facilitating cultivation of various marine organisms and resources. As part of these initiatives, it has developed related programs and courses promoting marine ecological restoration and conservation. The course on coral protection and restoration is the most distinctive one among these programs.

The next is the Neihu District Wastewater Treatment Plant in Taipei City, which primarily handles sewage from Neihu District and Dazhi neighborhood in Taipei City, as well as part of Xizhi District in New Taipei City. The plant employs a secondary biological treatment method, and after final disinfection with sodium hypochlorite, the treated wastewater is discharged into the Keelung River. With environmental education programs, the plant aims to help students understand the concept of

household wastewater and its treatment process, as well as eventually raise their awareness about the importance of water resources by demonstrating production and utilization of both recycled and reclaimed water.

Finally, the Kaohsiung City Seafont Water Resources Center is mainly responsible for transforming wastewater generated from people's daily lives into reclaimed water through the wastewater tertiary treatment. The final product is then supplied to corporations such as China Steel for use in their industrial manufacturing processes. Additionally, the center has developed innovative educational content using virtual reality technology, immersing the audience in a virtual journey of a small water droplet. The public is thus able to gain firsthand understanding of the importance of water resources.

The Environmental Education Certification Review Committee consists of 21 members. The MOENV's first female deputy minister, Ms. Shih Wen-chen, and Acting Director Chang Shun-chin of the National Environmental Research Academy act as the lead and deputy conveners, respectively. The rest of the committee is composed of experts and scholars, 14 of whom representatives of non-governmental organizations and five of whom officials from various government agencies. Facilities seeking environmental education certification must first undergo preliminary review by a subcommittee formed by members of the Environmental Education Certification Review Committee, and only those that pass the preliminary review will enter final evaluation by the entire committee.

9. Volunteers Recognized for Environmental Efforts

On 29 October, the National Environmental Protection Volunteer Heroes Convention was held by the MOENV and Tainan City Government in Chia Nan University of Pharmacy & Science. Besides attending the event to cheer on the participants, Premier Chen Chian-jen, MOENV Minister Shieu Fuh-sheng, and Tainan Mayor Huang Wei-che also presented awards to outstanding teams in various competitions as well as 38 excellent environmental education volunteers selected by each county and city.

This event brought together nearly 2,000 environmental volunteers from 22 counties and cities. Selected through preliminary contests in their respective regions, all participants dedicated their best efforts to compete for glory on behalf of their counties or cities. The competition this year featured four categories -- Environmental Mastermind, Recyclable Sorting Champion, Slam Dunk Recycler, and Environmental Defender -- combining elements of intellect, entertainment, and teamwork. The competition was designed to be both educational and entertaining.

MOENV Minister Shieu mentioned that, in response to global climate change, on 22 August this year the former EPA went through restructuring and became the MOENV, which now has higher goals and shoulders great responsibilities. In light of this, he expressed gratitude to the volunteers for their continuous participation and oversight on government authorities' initiatives related to environmental protection, education, and care. It is because of their dedicated efforts that various environmental tasks can be carried out smoothly and that Taiwan has become a more beautiful homestead. Minister Shieu also thanked the Tainan City Government for its full support in co-organizing this event, which served as a platform for volunteers from various counties and cities to exchange knowledge and enhance their environmental awareness.

At the closing ceremony, Premier Chen presented awards to 38 outstanding environmental education volunteers. In his speech, he emphasized the urgency of environmental protection on a global scale and Taiwan's goal to achieve net-zero emissions by 2050 through four major transitions: energy, industry, lifestyle, and society. Volunteers nationwide play a crucial role in promoting a green and sustainable lifestyle, and their active participation in environmental protection efforts is

highly appreciated and respected.

At the end of the event, Premier Chen passed the convention flag to Deputy County Commissioner Yan Hsin-chang of Hualien County, which will host the event next year. Through this symbolic transferring of the environmental spirit, the organizers look forward to reuniting in Hualien County in 2024.



Premier Chen Chian-jen delivered a speech to thank the volunteers for their dedication.



MOENV Minister Shieu had a lively interaction with the environmental volunteers.

10. Business Busted for Illegal Rerouting and Discharge of Wastewater to Kaohsiung Port

After lengthy monitoring, the Southern Center of Environmental Management of the MOENV's Environmental Management Administration (EMA), recently successfully identified a metal finishing business in Siaogang District, Kaohsiung City that had not properly treated its wastewater. The untreated wastewater was discharged by a motor pump into a drainage ditch outside the factory, polluting the water in Port of Kaohsiung. Inspection personnel took samples from inside the drainage manhole that was only big enough for one person to enter and confirmed the illegal action. The business was immediately ordered to cut off the illegal pipeline and cease the discharge of wastewater. It will be prosecuted and penalized according to law.

During a routine patrol around the seafront industrial zones in Kaohsiung City, the Southern Center of Environmental Management suspected a metal finishing factory in Siaogang District of discharging wastewater through an unauthorized outlet. The wastewater was found to contain elevated levels of heavy metals. A special task force was set up to monitor the situation. During a period of heavy rainfall last month, the factory was observed discharging wastewater from the unauthorized outlet when the rain subsided. Immediate sampling and testing were conducted, revealing the concentration of suspended solids at 100 mg/L, exceeding the standard limit of 30 mg/L by 3.3 times. Further investigation inside the facility found that the business was allowing generated wastewater containing heavy metals to flow into an adjustment tank. The wastewater was then pumped out by a motor and, with manual valve controls, directed into a concealed ground opening in a corner of the factory and discharged into the drainage ditch before entering Port of Kaohsiung, causing marine pollution. The wastewater exceeded the *Effluent Standards* (放流水標準) and the action constituted illegal rerouting, violating Article 7 Paragraph 1, and Article 18-1 Paragraph 1 of the *Water Pollution Control Act* (水污染防治法). The inspection personnel will report the behavior for future penalty accordingly.

To confirm that the external wastewater indeed came from said business, inspectors traced the flow of the wastewater using dye and entered the narrow drainage manhole to collect evidence. It was verified that the colored wastewater did enter the drainage system, and there were no other sources of wastewater, confirming the business' violation. Despite the business owner's attempt to put the blame on foreign employees, extensive evidence collected over time confirmed that this was not the business' first offense. To prevent the continuous discharge of untreated wastewater, the business was immediately ordered to cut off the unauthorized pipeline onsite to prevent further pollution.

The EMA urges all enterprises to comply with relevant regulations when treating and discharging wastewater. While continuing to investigate businesses that pollute rivers, environmental authorities will intensify supervision and control in industrial zones lacking centralized wastewater disposal facilities. Any unscrupulous businesses found to have discharged wastewater via unapproved outlets will face strict punishment based on relevant regulations in order to uphold environmental quality.

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