



# 2024 Annual Report on National Sustainable Development





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## PREFACE

In response to the global trend toward sustainable development, the Executive Yuan established the National Council for Sustainable Development (NCSD) in 1997. In December 2018, the Taiwan Sustainable Development Goals (T-SDGs) were formulated, and corresponding indicators were set in July 2019. In response to regulatory amendments and adjustments to institutional frameworks, and to effectively increase the achievement rate of the indicators, the first rolling review of the Taiwan SDGs was conducted. The findings were presented to the 34th NCSD Council Meeting on July 29, 2022, and were subsequently approved by the Executive Yuan. At present, the Taiwan SDGs include 18 goals, 143 targets, and 337 indicators. Together, they form a comprehensive framework that guides Taiwan's sustainable development efforts and strategic policy direction.

In accordance with the Climate Change Response Act promulgated on February 15, 2023, the NCSD is formally tasked with coordinating, assigning responsibilities, and integrating basic policies for national climate change response and interministerial climate change response policies. To enhance its role in climate governance, the NCSD established a Climate Change and Net-Zero Emissions Transition Task Force on April 26, 2023. It also revised its organizational guidelines to include a Deputy Chairperson, a position concurrently held by the Vice Premier, to oversee the task force's operations. In addition, the Executive Director convenes working meetings to coordinate interministerial work toward net-zero, and the results are subsequently presented to the NCSD working conferences and council meetings for discussions. Finally, the NCSD oversees and evaluates overall net-zero performance to improve the effectiveness of climate governance.

On June 19, 2024, President Lai Ching-te announced the formation of the National Climate Change Committee, inviting representatives from industry, government, academia, and research

institutions to jointly formulate strategic directions for climate governance and promote key action plans. The NCSD has served as the implementation and coordination platform for these policies, using task forces, evidence-based governance, and collaboration with ministries and local governments to implement them. To advance national sustainable development, the NCSD convenes regular meetings to strengthen interministerial communication and coordination. It also maintains an official website, compiles annual sustainable development reports, organizes the National Sustainable Development Awards, and conducts outreach activities on sustainability and net-zero issues to raise public awareness and participation. In addition, the NCSD continuously tracks progress on the goals and indicators, steadily advancing Taiwan's sustainable development agenda.

The Annual Report on National Sustainable Development aims to systematically present to the public and international community Taiwan's SDG performances to help enhance the understanding of Taiwan's progress and achievements. It is hoped that this report will inspire broader participation in sustainable development efforts and encourage collective contributions to Taiwan's sustainable future. This year's report highlights NCSD's key accomplishments in 2024, including: Overview of the NCSD's annual work (Chapter 1); Progress on Taiwan's SDGs (Chapter 2); Winners of the 2024 National Sustainable Development Awards (Chapter 3); and a summary of the future directions of sustainable development in Taiwan.

To ensure sustainable development, collective engagement of the public is required. Through this annual report, we aim to deepen public and international understanding of Taiwan's efforts and achievements in sustainability, thereby increasing awareness and fostering a shared commitment to building a sustainable future for Taiwan.



The National Council for Sustainable Development (NCSD) convened its 36th Council Meeting in 2024. In the meeting, reports on the Enhanced Strategies for Climate Change Adaptation and Transition Strategy Toward Smart Green Buildings and Net-Zero Buildings were presented, along with the implementation results of the resolutions from the 35th Council Meeting.

In addition, the NCSD held three working conferences (the 59th to 61st working conferences) during the year. The 59th Working Conference reported on the Spatial Development Strategy of the Spatial Planning Division in Response to Climate Change, the Draft Amendment of the Sustainable Development Policy Framework, and the Progress on the 2050 Net-Zero Emission Pathway—Lifestyle Transformation (Key Strategies 7, 8, and 10). The 60th Working Conference presented updates on the Enhanced Strategies for Climate Change Adaptation and the Transition Strategy Toward Smart Green Buildings and Net-Zero Buildings. Feedback was collected from the council members and presented at the Council Meeting for discussions. The 61st Working Conference reported the Action Plan on Deep Energy Saving, the 2023 Review Report on Taiwan's Sustainable Development Goals, and the Periodic Review Report on Taiwan's Sustainable Development Goals for 2020 to 2023. Major resolutions from the 2024 meetings are as follows:

## I. The 36th NCSD Council Meeting

The 36th Council Meeting, held on August 21, 2024, in the First Conference Room of the Executive Yuan, was presided over by Premier Cho Jung-tai, who also served as the NCSD Chairperson. The agenda included three reports and two motions. Key resolutions were as follows:

### 1. Report 1: NCSD operations and progress on the resolutions from the 35th Council Meeting

#### Resolution:

- (1) The NCSD members expressed appreciation to all working groups and task forces for their active promotion of sustainable development. Based on the resolutions adopted at the previous Council Meeting and the implementation status presented in the reports, it was resolved that certain items be removed from oversight or changed to self-monitoring.
- (2) The Council Secretariat and the Climate Change and Net-Zero Emissions Transition Task Force were instructed to continue monitoring and reviewing the implementation of the 12 key strategies for net-zero emissions and the Taiwan SDGs.
- (3) The Ministry of Environment was tasked with advancing Phase II of the Action Plan for Greenhouse Gas Reduction in the Six Key Sectors and collaborating with relevant agencies in conducting annual rolling reviews and improvements. The Council Secretariat was also tasked with incorporating these efforts into the annual performance review for the SDGs, so as to ensure that all ministries effectively implement the strategies and achieve their respective annual targets.

## 2. Report 2: Enhanced Strategies for Climate Change Adaptation

#### Resolution:

- (1) The NCSD and Climate Change and Net-Zero Emissions Transition Task Force will increase the frequency of their meetings. Issues discussed by the National Climate Change Committee and recommendations of the NCSD members will be implemented through a task force under the NCSD.
- (2) With the Climate Change Response Act in effect since 2023, the central government, local governments, and the private sector must work together to implement the third



phase of National Climate Change Adaption Action Plan (2023-2026).

- (3) Preparations for the fourth phase of the action plan will begin in 2025. The Ministry of Environment and lead agencies were asked to incorporate recommendations of the NCSD members into future evaluations to enhance national adaptation and mitigation capacity.
- (4) The Climate Change and Net-Zero Emissions Transition Task Force was instructed to coordinate across ministries, the different sectors, and levels of government to implement the conclusions and recommendations of the National Climate Change Committee in order to mobilize collective efforts across all sectors and take concrete actions.

### 3. Report 3: Transition Strategy Toward Smart Green Buildings and Net-Zero Buildings

#### Resolution:

- (1) All responsible ministries were asked to carefully consider the recommendations and written materials presented by the NCSD members and to provide detailed responses after the meeting.
- (2) Achieving net-zero transition by 2050 is a key national mission and policy. Among the 12 key strategies for net-zero transition announced by the Executive Yuan, energy efficiency in buildings is a vital component. The Ministry of the Interior was requested to refer to the International Energy Agency and global net-zero trends to prioritize achieving a 50% energy savings rate in buildings and using zero-carbon renewable electricity in order to realize the goal of net-zero buildings by 2050.
- (3) In its efforts toward energy-saving and carbon-reduction, the Ministry of the Interior will start



▲ Figure 1-1 The 36th NCSD Council Meeting



with social housing, all of which must obtain Green Building certification. Starting in 2023, social housing projects funded by the central government must meet at least Level-1 energy efficiency standards. The Ministry was also tasked with expanding the energy efficiency evaluation system from public buildings to the private sector in order to foster cross-sector integration in Taiwan's smart net-zero building industry.

- (4) The NCSD thanked all council members for their concrete recommendations. Given the existing foundation for net-zero buildings, the Ministry of the Interior was requested to continue engaging with stakeholders in different sectors. Through public participation and social dialogue, efforts should be made to refine net-zero transition strategies for both public and private buildings in order to move toward the goals of sustainable development.

#### 4. Extempore Motion

- (1) It was recommended that, in drafting guidelines and templates for sustainability reports, the Financial Supervisory Commission (FSC) should conduct a comprehensive assessment across the different industries, their feasibility, and future implementation. Concrete measures should be proposed as early as possible to enable small and medium-sized enterprises (SMEs) to follow and implement them effectively.

**Resolution:** The FSC was requested to promptly compile concrete implementation measures based on the committee's recommendations and communicate such information to the public.

- (2) The current Spatial Planning Act lacks provisions for indigenous land and building rights, potentially leading to misuse and undermining conservation efforts. This would

contradict the Act's legislative intent and principles of social equity. The one-time building rights granted to indigenous peoples involved issues of land conservation, housing rights, and social equity. It was recommended that conditions be clearly defined and that broader public consultation be conducted to ensure more comprehensive deliberation. This entitlement should not be granted unconditionally or without limitation.

**Resolution:** The central government is still coordinating with local governments on this issue. The Ministry of the Interior was asked to incorporate the recommendations of the NCSD members into future policy adjustments and to actively engage with stakeholders.

## II. The 59th to 61st Working Conferences

### i. The 59th Working Conference

The 59th Working Conference was held on April 15, 2024, in Meeting Room 610 of the NCSD. The meeting was presided over by then-Executive Director Kung Ming-hsin and included one report item and three discussion items. Key resolutions were as follows:

#### 1. Report 1: Progress on the resolutions from the 58th Working Conference

**Resolution:** Noted.

#### 2. Discussion 1: Spatial development strategy of the spatial planning division in response to climate change

**Resolutions:**

(1) Noted.

(2) The NCSD operational framework consists of four thematic working circles: Social Inclusion, Sustainable Economy, Land Resilience, and



Green Environment. To enhance climate response capacity, the Ministry of the Interior, as the lead agency, was requested to draft preliminary guidelines for departmental spatial development strategies. These guidelines shall be reviewed through interministerial consultations within the Land Resilience working circle, and the results subsequently submitted to the NCS Working Conference for discussion.

- (3) Regarding efforts by the Ministry of the Interior to incorporate climate risk assessment into national land planning, emphasis shall be placed on how spatial planning can address climate-related risks. The Ministry of Environment, National Science and Technology Council, and Central Weather Administration were requested to consolidate relevant outcomes and present preliminary findings within the Land Resilience working circle. These findings shall then be submitted

to the NCS Working Conference for further deliberation.

- (4) Given the strong linkage between national spatial planning and the local governments, the Ministry of the Interior was requested to invite local government representatives to participate in relevant meetings concerning the implementation strategies of departmental plans.

### 3. Discussion 2: Draft amendment of the Sustainable Development Policy Framework

#### Resolutions:

- (1) Noted.
- (2) The NCS expressed appreciation to its members for their concrete suggestions on the draft amendment of the Sustainable Development Policy Framework. In accordance with the resolution of the 58th Working Conference, a comprehensive review



▲Figure 1-2 The 59th Working Conference



of Taiwan's SDGs was scheduled for 2025, with final approval by the Executive Yuan in 2026. The current draft amendment focused on sections not directly tied to the SDG structure. Further revisions to the framework may be considered following the next comprehensive review of the SDGs.

- (3) Regarding Goal 8, NCSA members recommended including the tasks to be undertaken by collaborating enterprises. The Ministry of the Interior and the Ministry of Economic Affairs were asked to consider these recommendations and revise the wording accordingly. For the proposed addition of wording relating to indigenous women under Goal 5, since the current indicators do not target specific groups, the Council of Indigenous Peoples was asked to provide revision suggestions after the meeting. Lead agencies for Goals 5, 6, 8, 12, 13, and 18 were also asked to review the council's feedback.
- (4) Lead agencies for each SDG were requested to take into account recommendations of the NCSA members and adjust or elaborate the content as appropriate. Upon approval by the supervisory working group, the revised materials shall be submitted to the NCSA Secretariat for consolidation and subsequently provided to the NCSA members for confirmation. Once confirmed, the documents will be submitted for approval by the NCSA Executive and reported to the Executive Yuan. Following official approval, the finalized content will be published on the NCSA website.

#### 4. Discussion 3: Progress Report on the 2050 Net-Zero Pathway - Lifestyle Transformation (Key strategies 7, 8, and 10)

##### Resolutions:

- (1) Noted.

- (2) Regarding the progress report on the 12 key strategies for net-zero emissions, lead agencies were asked to respond to the inquiries by NCSA members to the NCSA Secretariat. The Secretariat will then compile the responses and share them with NCSA members.
- (3) On assessing carbon reduction benefits, although the process was challenging, lead agencies for each key strategy were requested to consolidate and present carbon reduction outcomes in the next phase so as to serve as reference for rolling policy adjustments.

#### ii. The 60th Working Conference

The 60th Working Conference was held on August 9, 2024, in Meeting Room 610 of the NCSA. The meeting was presided over by then-Executive Director Liu Jin-ching and included three report items. Key resolutions were as follows:

##### 1. Report 1: NCSA operations and progress on the resolutions from the 59th Working Conference

###### Resolutions:

- (1) Noted.
- (2) Regarding alignment between Taiwan's SDGs and international frameworks, the NCSA Secretariat was requested to formulate a revised timeline for the SDGs, establish checkpoints, and present the new schedule at the future NCSA meeting for discussion.

##### 2. Report 2: Enhanced Strategies for Climate Change Adaptation

###### Resolutions:

- (1) Noted.
- (2) To carry out an all-round review on the integration of Nature-based Solutions (NbS)



▲Figure 1-3 The 60th Working Conference

into the National Climate Change Adaptation Action Plan (2023-2026), the scope should be expanded beyond agriculture, coastal, and marine sectors to include other relevant domains. The responsible working group for Goal 13 was tasked with coordinating this effort, including capacity building and cross-sectoral integration of the NbS. Relevant agencies were also asked to provide progress on NbS capacity-building and the concrete impact of NbS on adaptation and ecological net gain.

- (3) Biodiversity issues fall under the Green Environment Working Circle. The Climate Change and Net-Zero Emissions Transition Task Force of the Ministry of Environment and the Ministry of Agriculture were tasked to conduct a comprehensive review of biodiversity-related issues and explore incorporating biodiversity into the Task Force's operational structure. The Ministry of Environment and the Ministry of Agriculture

should convene a meeting under the NCSD's auspices to identify participating agencies, assess organizational adjustments and positioning, and report findings at the next working conference.

- (4) For the rolling review of the third phase of the National Climate Change Adaptation Action Plan (2023-2026), the Ministry of Environment was asked to coordinate national-level priorities across sectors. It should also evaluate the feasibility of establishing biodiversity as a standalone domain, separate from agricultural production. In addition, based on the newly released Climate Change in Taiwan: National Scientific Report 2024, the Ministry should use the climate change projections for Taiwan to begin revising the next adaptation plan, with emphasis on community-based adaptation capacity. All ministries were also requested to start formulating their 2025 budget in 2024 and adjust their work priorities in the different



sectors accordingly. NCSD members were invited to contribute feedback.

### 3. Report 3: Transition strategy toward smart green buildings and net-zero buildings

#### Resolutions:

- (1) Noted.
- (2) Regarding the design of energy-efficient building envelopes in energy efficiency regulations, the Ministry of the Interior was asked to consider the recommendations of NCSD members and evaluate the inclusion of insulation and ventilation measures in future revisions.
- (3) According to the 2050 Net-Zero Emission Pathway, the goal is to upgrade 50% of existing buildings to Level-1 energy efficiency or near-zero carbon standards by 2040 and 85% by 2050. This requires accurate floor area statistics for existing buildings to assess carbon reduction potential, and the Ministry of the Interior is currently developing a methodology to calculate floor areas. The Ministry was also asked to identify gaps and review relevant regulations to ensure progress. In addition, amendments to the Renewable Energy Development Act were passed in 2023, which required that all new, expanded, or renovated buildings above a certain scale must install solar photovoltaic power generation facilities. As the Ministry is revising the technical standards for solar installation at the moment, the NCSD has urged it to expedite the process to ensure regulatory readiness.

#### iii. The 61st Working Conference

The 61st Working Conference was held on November 29, 2024, in Meeting Room 610 of the NCSD. The meeting was chaired by Deputy

Executive Kao Shien-quey and included three report items. Key resolutions were as follows:

### 1. Report 1: NCSD operations and progress on the resolutions from the 60th Working Conference

#### Resolutions:

- (1) Noted.
- (2) To carry out a comprehensive review on the integration of Nature-based Solutions (NbS) into the National Climate Change Adaptation Action Plan (2023-2026), and to enhance capacity building and cross-sectoral linkages, the following actions were proposed:
  - A. The Ministry of Agriculture was asked to develop demonstration cases for capacity building to serve as references across sectors and to propose concrete strategies for inter-ministerial outreach.
  - B. The Ministry of Environment was asked to conduct a full review and draft proposals for integrating NbS into the next National Climate Change Adaptation Action Plan (2027-2030) and to actively initiate planning for the new phase.
  - C. This work item will continue to be monitored and will be discussed at the next working conference.
- (3) Regarding the incorporation of biodiversity into the Climate Change and Net-Zero Emissions Transition Task Force, the Ministry of Environment, in coordination with the Ministry of Agriculture and the Ocean Affairs Council, was asked to develop an implementation plan and report concrete results at the next working conference. This work item will continue to be monitored.
- (4) On the Transition Strategy Toward Smart Green Buildings and Net-Zero Buildings, the



▲Figure 1-4 The 61st Working Conference

Ministry of the Interior was asked to consider the recommendations from NCS members and propose specific implementation strategies and timelines for incorporating insulation and ventilation standards into energy efficiency regulations for existing buildings. This work item will continue to be monitored.

## 2. Report 2: Action plan on deep energy saving

### Resolutions:

- (1) Noted.
- (2) The Ministry of Economic Affairs was asked to revise the relevant wording in the report regarding the method of calculating electricity savings and insurance claims based on feedback from NCS members and the Financial Supervisory Commission.

- (3) Energy conservation policies should address both buildings and equipment. The Ministry of Economic Affairs was asked to strengthen collaboration with the Ministry of the Interior during implementation as per recommendations from the NCS members. For building energy efficiency standards and retrofitting of older buildings, the Ministry of the Interior was requested to propose a concrete timeline and planning framework.

## 3. Report 3: 2023 Review Report on Taiwan SDGs and Periodic Review Report on Taiwan SDGs for 2020 to 2023

### Resolutions:

- (1) Noted.
- (2) Regarding inquiries concerning Indicator 3.4.1 (Unconditional Probability of dying



between ages 30 and 70 years from cancer), Indicator 6.4.1 (Water efficiency of domestic consumption), Indicator 8.11.3 (Conferring about promoting energy tax to reflect external costs), and Indicator 12.4.6 (Quantity of hazardous industrial waste per capita), as well as other indicators of concern, lead agencies were asked to revise the indicator calculations, classification methods, strategies for addressing underperforming indicators, and other identified inadequacies. All lead agencies for the Goals should review the report and submit revisions to the NCSD Secretariat by December 9, 2024, for approval and publication on the NCSD website.

- (3) As a comprehensive review and revision of Taiwan's SDGs is scheduled to begin in 2025, with final approval by the Executive Yuan in 2026, lead agencies were asked to incorporate NCSD member feedback on the appropriateness of the indicator into the review process. NCSD members will also be invited to offer recommendations during the revision phase.

### III. Review of the Implementation of Sustainable Development Goals

NCSD conducts regular reviews of the implementation of Taiwan's SDGs. The process includes an annual review as well as assistance to central and local governments in preparing Voluntary Department Review (VDR) and Voluntary Local Review (VLR). In 2024, the NCSD published the 2023 Annual Review Report on Taiwan's Sustainable Development Goals, which served as a tool to review the performance of the lead agencies responsible for the goals and the agencies tasked with overseeing individual indicators. By consolidating inputs from various working groups and task forces, the report presents progress



▲Figure 1-5 2023 Annual Review Report on Taiwan's Sustainable Development Goals



▲Figure 1-6 Interim Report on the Taiwan Sustainable Development Goals (2020–2023)



updates and an outlook for the next phase of implementation. It also compiled implementation results for the corresponding indicators, including the purpose of each Goal, the expected annual outcomes, key policies introduced during the year, achieved results, and proposed directions for the following year. These elements were compared against the performance roadmap to assess progress on an item-by-item basis, with continued tracking planned for subsequent phases.

In addition, in accordance with the Principles for Monitoring and Evaluation of Taiwan's Sustainable Development Goals, a rolling review is conducted every four years. The year 2024 marked the second phase of this periodic review, culminating in the publication of the Interim Report on the Taiwan Sustainable Development Goals (2020–2023). This report provides a comprehensive assessment of the progress and challenges encountered in advancing each Goal over the four-year period, proposes strategies for improvement, and outlines plans for the next phase of implementation. Also in 2024, local governments in Kaohsiung City, Keelung City, Tainan City, Taitung County, and Kinmen County submitted their VLRs, evaluating the progress of sustainable development initiatives at the local level.



Sustainable development is one of Taiwan's core values. To proactively transition toward national sustainable development, keep abreast of global sustainable development actions, and address local development needs, the government drafted Taiwan's own Sustainable Development Goals (SDGs) in 2016 in line with the United Nations 2030 Agenda. The Taiwan SDGs were approved at the 31st NCSD meeting in 2018, and the corresponding indicators were established in 2019. A rolling review of the goals was conducted in 2022, resulting in revisions to 161 indicators.

Currently, the Taiwan SDGs include 18 goals, 143 targets, and 337 indicators. The NCSD has established 17 working groups, each aligned with one of the 18 goals. In addition, the Nuclear-Free Homeland Promotion Task Force and the Climate Change and Net Zero Transition Task Force were created. This chapter outlines the key policies, regulations, and measures advanced by each working group and task force, providing a comprehensive overview of Taiwan's annual progress toward its sustainable development goals.



## Strengthen social care services and economic security for the disadvantaged

### 1. Increasing self-reliance among the economically vulnerable and safeguarding their economic security

- (1) To help the economically disadvantaged groups gain employment and become financially self-reliant, the Ministry of Labor implemented integrated employment services in 2024 through public employment service institutions. By providing one-stop services, this approach employed social workers to assist low- and middle-to-low-income individuals with work

capacity in accessing employment counseling, assessments, job referrals, and vocational training. Employment subsidies were also provided. A total of 23,655 individuals registered for job seeking, with 19,554 successfully placed in employment, resulting in an 82.66% placement rate.

- (2) In 2024, the Ministry of Health and Welfare continued to provide social welfare subsidies to ensure basic living standards for the economically vulnerable. A total of 223,705 middle-to-low-income elderly individuals benefitted from more than NT\$18.982 billion in subsidies, while 98,456 disadvantaged children and youth received over NT\$2.249 billion in subsidies. In addition, NT\$23.113 billion in living subsidies was provided to 341,607 persons with disabilities.

### 2. Promoting inclusive finance

- (1) To ensure basic insurance coverage for the economically disadvantaged and minority groups, the Financial Supervisory Commission (FSC) set a target of 1.75 million cumulative microinsurance policyholders in 2024, reaching 1.889 million by year-end.
- (2) In 2023, the FSC approved a pilot program for microinsurance policies covering residential fire, offering NT\$8,000 per person in coverage. In 2024, the program was implemented in partnership with seven county and city governments, with 161,245 individuals insured by year-end. A total of 175,415 individuals have been insured since the program's launch. The FSC also approved a pilot microinsurance policy for residential fire and green energy products, which was launched in collaboration with two city and county governments. A total of 2,569 households were insured by the end of 2024.

### 3. Ensuring economic security for the elderly

- (1) The National Pension Program was launched in October 2008. In 2024, the pension program provided old-age annuity payments to 1,500,537 individuals, with total disbursements of NT\$70.816



billion. In the same year, there were 527,485 payments to indigenous beneficiaries amounting to NT\$2.129 billion, with an average monthly beneficiary count of 43,957 individuals.

- (2) Since January 1, 2009, the Labor Insurance system has offered disability, old-age, and survivor benefits, and the Bureau of Labor Insurance has since continued to promote and advance the labor insurance annuity system. In 2024, 1,931,013 individuals received labor insurance pension payments, providing long-term financial support to insured workers and their dependents.
- (3) To enhance protection for workers affected by occupational injuries and encourage employers to hire middle-aged and older workers, a total of 568,977 individuals who had already received old-age benefits or other retirement benefits and who were either re-employed or undergoing training at registered institutions were enrolled in occupational injury insurance in accordance with regulations.

#### 4. Supporting micro and youth entrepreneurship

- (1) To promote entrepreneurship, the Ministry of Labor organized 191 free training sessions in 2024, covering basic, intermediate, and advanced topics on starting a business. In addition, 4,741 individuals received free business startup consultations, with industry experts providing guidance throughout the pre-, mid-, and post-startup phases to help solve operational challenges and improve success rates.
- (2) The Ministry of Labor offered interest subsidies for Micro Start-up Loans, with a maximum loan amount of NT\$2 million, a term of up to seven years, and no requirement for guarantors or collateral. Full interest subsidies were provided for the first two to three years. In 2024, 566 loan applications were approved. As of December 2024, the Ministry of Economic Affairs had facilitated NT\$105.68 billion in guaranteed financing for microenterprises and young entrepreneurs through credit guarantee mechanisms.



▲ Figure 2-1 Briefing session on Micro Start-up Loan

#### 5. Expanding long-term care and rural health services

- (1) In 2024, the estimated number of individuals requiring long-term care was 892,117, with 757,089 receiving long-term care services across Taiwan, resulting in a coverage rate of 84.86%. Among these, an estimated 720,160 were persons with disabilities eligible for Long-Term Care 2.0 services, of whom 670,922 received care, reflecting a 93.16% utilization rate among qualified recipients.
- (2) In 2024, initiatives to increase allocation of healthcare resources under the National Health Insurance system were launched in 204 townships. These included efforts to enhance access to Western medicine services in 128 townships, traditional Chinese medicine in 157 townships, and dental care in 152 townships. Mobile medical services were deployed in 196 townships, resulting in an overall coverage rate of approximately 96.08%, successfully meeting the annual target of 95.5%.
- (3) Efforts to promote culturally responsive care for the elderly in the indigenous population continued across Taiwan. Subsidies provided to 16 counties and cities supported the establishment of 519 culture and health stations (425 in indigenous regions and 94 in urban areas), serving a total of 16,340 indigenous seniors. In addition, 1,347 local care workers were trained to deliver community-based support. Of the 394 indigenous villages and communities across



▲ Figure 2-2 Elders at the Tavatavang Culture and Health Station in Pingtung County participate in activities aimed at preventing and delaying functional decline

Taiwan, 320 have established culture and health stations, resulting in a coverage rate of 81.2%.

## 6. Promoting social housing and rent subsidies

- (1) Launched in 2017, the Implementation Program for Social Housing Project had, by the end of 2024, completed the construction of 202,703 housing units and carried out intermediary leasing arrangements across 22 counties and cities, achieving the national target of 200,000 units.
- (2) The Ministry of the Interior will launch the Support Program for One Million Rental Households, with a goal of constructing 250,000 units of social housing and providing an additional 250,000 through intermediary leasing arrangements by 2032, while expanding the overall number of social housing in line with regional development needs. As of the end of 2024, 119,552 units had been constructed directly, including 11,895 units allocated to economically or socially disadvantaged households. Under the intermediary leasing arrangements, 142,591 units had been matched, with 83,151 active rental contracts, of which 35,569 units were allocated to disadvantaged households.
- (3) In addition, Operation Directions of 30 Billion Special Program for Expanded Rent Subsidies by the Central Government, implemented over 2023-2024, received more than 980,000 applications, with over 740,000 households approved, including 215,575 economically or

socially disadvantaged households. The program will continue into 2025.

## 7. Reducing losses from major disasters

- (1) In 2024, a total of 11 individuals were reported missing or killed due to major disasters, while another 967 were injured. Both figures were significantly lower than the average figures recorded between 2011 and 2020, where 68 were reported missing or killed while 4,772 were injured.
- (2) In 2024, the average annual loss to public property was NT\$7.038 billion, slightly higher than the NT\$6.23 billion average recorded during the first SDG phase (2011–2020). However, to date, the cumulative public property loss for the second phase (2021–2030) stands at NT\$28.15 billion, which remains substantially lower than the NT\$62.297 billion total incurred over the entire first phase.
- (3) In 2024, the central competent authority on disaster prevention amended Fire, Explosion and Windstorm Operation Plan of Disaster Prevention and Protection, requiring local governments to develop evacuation protocols and conduct drills for older adults and persons with limited mobility. Amendments to the Earthquake and Volcanic Operation Plan of Disaster Prevention and Protection response are expected to be completed in the second half of 2025. As of now, all local governments have incorporated the vulnerable populations into their regional disaster response plans, achieving a 100% inclusion rate.



## Ensure food security, eradicate hunger and promote sustainable agriculture

### 1. Promoting healthy diets and increasing domestic grain production

- (1) In collaboration with Taiwan Railways Bento, the Ministry of Health and Welfare introduced the



Tea-Scented Smoked Chicken Bento, featuring a higher proportion of vegetables, whole grains, and miscellaneous grains, while avoiding deep-fried, processed, or pickled ingredients. This ensures that the bento remains tasty while promoting a balanced diet. It also encourages other food service providers to help foster an environment that supports healthy eating.

(2) To enhance Taiwan's food self-sufficiency, the Ministry of Agriculture has continued to implement a national program aimed at revitalizing fallow lands and converting rice paddies to coarse grain cultivation. In 2024, the land area used for producing miscellaneous grains was 84,881 hectares, representing an increase of 3,396 hectares compared to 2023. Through technical workshops, equipment subsidies, and the establishment of regional collection and distribution centers, the program has improved farmers' know-how and expanded the logistics and marketing of miscellaneous grains.

## 2. Promoting traceable production and organic farming

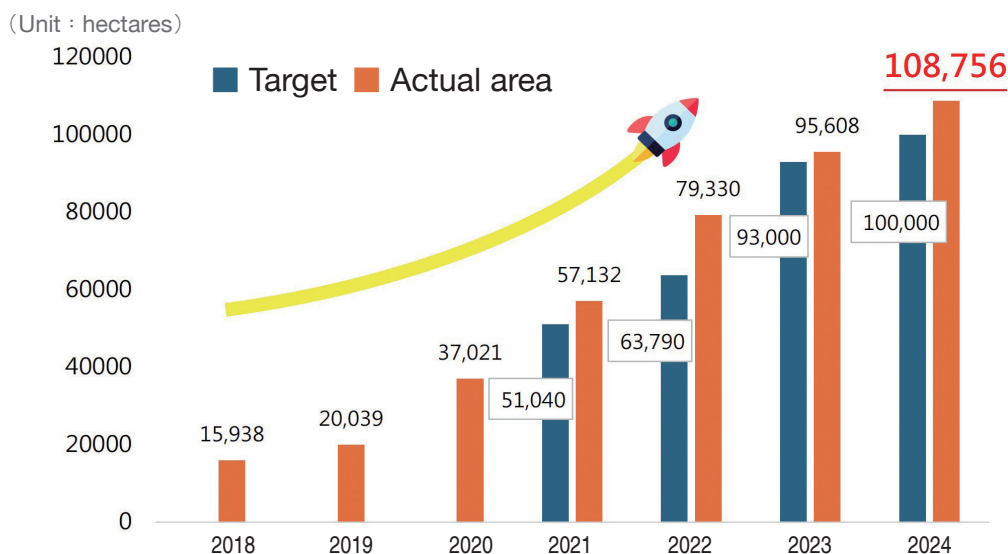
(1) To enhance agricultural sustainability and food safety, the Ministry of Agriculture has

provided subsidies, guidance, and training to encourage farmers to adopt food traceability certification and environmentally friendly farming practices. The Ministry also provided assistance in the construction of reinforced greenhouse and screen-house culture and the use of smart technologies in order to improve disaster resilience and production efficiency in agriculture. As of the end of 2024, 335 hectares of greenhouse-net facilities had been built, and the area of land under traceability-certified production for agricultural and food crops has reached 108,756 hectares. The area represents a 6.82-fold increase compared to 2018 and contributes to reduced environmental impact.

(2) The total area under organic certification and eco-friendly farming reached 27,012 hectares, accounting for 3.47% of Taiwan's arable land. This places Taiwan at the forefront of sustainable agriculture development in Asia. To strengthen the agricultural sector's resilience to climate change and safeguard the basic livelihoods of vulnerable groups, the government continues to actively promote relevant measures. Through organic and traceability certification, these efforts foster eco-friendly farming, improve the quality



### Growth in traceability-certified land area



▲Figure 2-3 Growth in traceability-certified land area for agricultural and food products



of agricultural products, and attract the younger generation to engage in farming.

### 3. Promoting agricultural loans for young and middle-aged farmers to encourage entry into farming, address the demographic imbalance in the agricultural workforce, and advance sustainable agriculture

The Ministry of Agriculture continues to provide preferential loans for young farmers. These include interest-free loans of NT\$5 million over five years for the Top 100 Young Farmers and NT\$2 million over five years for other young farmers. In 2024, a financial and risk advisory mechanism was established for young farmer loans. Starting August 20, 2024, the interest rate for middle-aged farmer loans was reduced to 1.415%, matching that of young farmers, to further encourage sustainable operations. The Ministry has also optimized the online loan application system, provided dedicated consultation hotlines, and launched a dedicated section for young farmer loans on its official website.

In 2024, the total amount disbursed under the young and middle-aged farmer loan program reached NT\$5.5 billion, benefiting 3,334 young and middle-aged farmers.

### 4. Promoting pipeline irrigation facilities to enhance water use efficiency

The Ministry of Agriculture has subsidized and assisted farmers in the installation of on-farm pipeline irrigation systems, power units, water storage, and control facilities on 2,395 hectares of farmland, benefiting 3,736 farming households. Pipeline irrigation enables timely and precise water delivery, improving water use efficiency while saving time and labor. It also contributes to higher crop quality and yields, thus ensuring food security.

### 5. Promoting the use of biological and safe agricultural materials

To encourage environmentally friendly practices for pest and disease control, the Ministry of Agriculture has provided subsidies for the use of



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## Agricultural Loans for Young and Middle-aged Farmers

To provide young farmers with the funds needed for agriculture, the Young Farmers Entrepreneurship Loan was launched in October 2012. In August 2021, middle-aged farmers were included as eligible loan recipients, and the loan program was renamed the Young and Middle-Aged Farmers Agricultural Loan, thereby fully supporting the funding needs of young and middle-aged farmers.



#### Cumulative loans to young farmers

| January to December, 2024 |                 | Cumulative loans from the launch in October 2012 through the end of December 2024 |                   |
|---------------------------|-----------------|---|-------------------|
| Number of recipients      | Amount          | Number of recipients  | Amount            |
| 2,967                     | NT\$5.1 billion | 22,262  | NT\$31.55 billion |

#### Cumulative loans to middle-aged farmers

| January to December, 2024 |                 | Cumulative loans from the launch in August 2021 through the end of December 2024 |                  |
|---------------------------|-----------------|--|------------------|
| Number of recipients      | Amount          | Number of recipients   | Amount           |
| 367                       | NT\$440 million | 1,385  | NT\$1.61 billion |



#### Loan Hotlines

Agricultural Bank of Taiwan 0972-590951  
 Agricultural Credit Guarantee Fund 0963-619301  
 Agricultural Finance Agency 0933-239983



#### Online Loan Application

Applications may be submitted through the Agricultural Bank's official website using a web-based computer system, or via the mobile app.



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▲Figure 2-4 Results of agricultural loan programs supporting young and middle-aged farmers



natural enemy insects (e.g., *Anastatus formosanus* and *Nesidiocoris*, covering 9 species and 35 products), biopesticides (e.g., *Bacillus thuringiensis* and *Bacillus subtilis*, covering 59 products), and plant protection materials exempt from pesticide registration (e.g., neutralized phosphorous acid solution and neem oil, covering 737 products). In 2024, natural enemy insects were used across 517 hectares, benefiting 197 farmers; biopesticides were applied over 5,302 hectares, reaching 1,700 farmers; and plant protection materials exempt from pesticide registration were used on 13,350 hectares, benefiting 6,182 farmers.

## 6. Conserving plant and animal genetic resources for food and agriculture

- (1) The Taiwan Agricultural Research Institute under the Ministry of Agriculture has preserved 77,272 accessions of plant seeds in its medium-term storage facilities and 55,490 accessions in long-term storage. Additionally, it maintains 881 accessions of vegetatively propagated crop germplasm and 387 accessions of tissue culture-derived germplasm.
- (2) The Taiwan Forestry Research Institute has collected and conserved 2,422 samples of important tree seeds and conducted 104 international seed exchanges.
- (3) The Fisheries Research Institute maintains a germplasm bank for aquatic organisms, including 60 species of edible and ornamental aquatic life. It also holds 1,331 cryopreserved samples of tissue. Beyond conservation, in 2024 the Institute released approximately 120,000 fish (including *Neoglyphidodon melas*, *Pomacentrus moluccensis*, and *Atro Bucca nibe*) and 3.1 million shellfish (including *Meretrix lusoria*, *Babylonia areolata*, and *Laevistrombus canarium*) to enhance marine biodiversity.
- (4) The Taiwan Livestock Research Institute manages 46 live populations of indigenous and newly bred livestock and poultry strains. It has also cryopreserved 4,110 registered reproductive cell samples. For forage crops, it has preserved two species from the *Poaceae* and *Fabaceae* families, with 320 live germplasm accessions and

a cumulative 750 seed samples preserved and updated.

- (5) The Taiwan Agricultural Research Institute houses the National Plant Genetic Resource Center, which maintains a robust collection of food crop varieties, none of which are currently at risk of extinction (classified as endangered, safe, or unknown). On May 29, 2024, the Center deposited 170 millet germplasm accessions, representing traditional crops of Taiwan's indigenous peoples, into the Svalbard Global Seed Vault in the Arctic Circle for the first time. Known as the Doomsday Vault, Svalbard serves as a global backup for genetic resources. Moving forward, the Institute will integrate this effort into the Ark Project, annually duplicating germplasm to Svalbard to demonstrate Taiwan's commitment to genetic conservation and cultural heritage.

## 7. Enhancing rural production conditions and living environments

- (1) In light of the limited basic infrastructure and functional amenities in rural areas, the Ministry of Agriculture has prioritized projects that are urgent, related to public safety, and serve the public interest. Through the upgrade of facilities and strengthened disaster prevention and mitigation efforts, the Ministry supports improvements to both the industrial environment and living spaces. For example, in 2024, 250 engineering projects were implemented to help 216 villages improve access roads, drainage systems, and leisure areas. Among these, the renovation of aging roads within rural communities aims to ensure basic mobility for residents, improve traffic safety and accessibility, and ultimately foster talent retention and industrial investment.
- (2) In response to growing awareness of environmental and ecological conservation, rural regeneration projects have incorporated eco-friendly measures and are oriented toward enhancing ecological sustainability and revitalizing the cultural landscape of rural areas. In addition, a more stringent carbon emission management scheme has been implemented to align with net-zero carbon reduction strategies.



## Ensure promote healthy lives and promote well-being for all at all ages

### 1. Reducing mortality risk from major diseases

(1) In 2024, the Ministry of Health and Welfare provided approximately 4.81 million cancer screening services and actively promoted proactive follow-up of positive results to increase follow-up rates for positive screenings and facilitate early diagnosis and treatment. Efforts to enhance the quality of cancer care have also progressed, with 67 hospitals now certified for the quality of their cancer treatments. The five-year survival rate has increased from 50.2% between 2005 and 2009 prior to certification to 62.9% between 2018 and 2022. Additionally, subsidies were provided to 105 hospitals to establish cancer resource centers to offer comprehensive support for cancer patients. Taiwan's standardized mortality ratio for cancer has declined from 131.8 deaths per 100,000

population in 2013 to 113.3 per 100,000 in 2024, a 14% reduction.

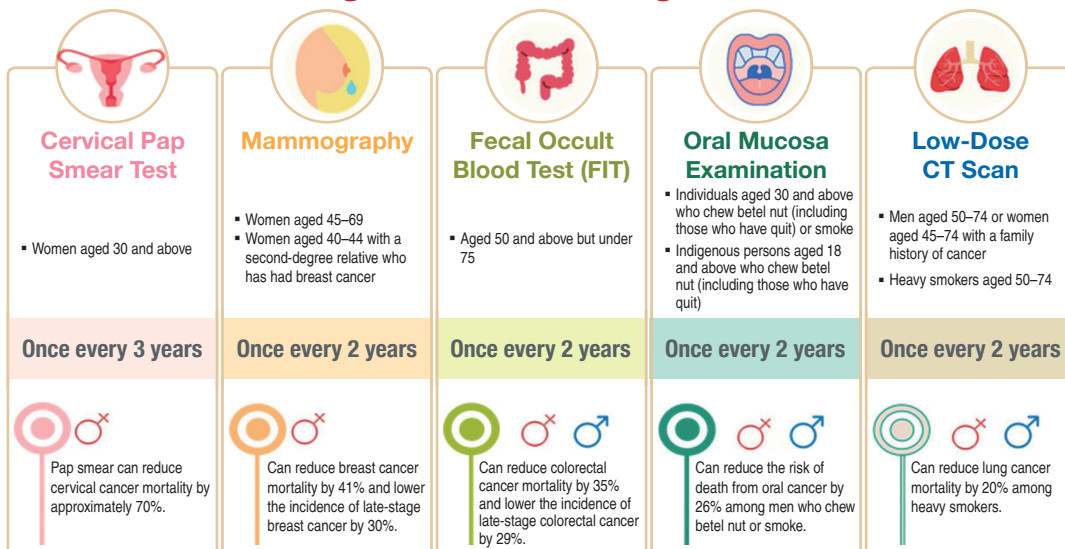
(2) Cardiovascular Disease Prevention: To combat cardiovascular disease, the Ministry of Health and Welfare has used multiple outreach channels to promote healthy lifestyles and leveraged adult preventive health services to identify early cases of hypertension, hyperlipidemia, and hyperglycemia. Risk assessment and health education initiatives have been widely implemented, alongside a joint Metabolic Syndrome Prevention Program with the National Health Insurance Administration. Among adults aged 30 to 70, the probability of death from cardiovascular disease declined from 3.70% in 2011 to 3.48% in 2019. However, due to the COVID-19 pandemic and population aging, the rate rose to 3.80% in 2023.

### 2. Promoting physical and mental wellbeing

(1) To address mental health challenges and insufficient physical activity, the Ministry partnered with local governments to strengthen outreach focusing on the young people and older adults. The Mental Health Support Program For Young Adults Aged 15-45 was launched in

## Regular Health Screening: Early Detection for Early Treatment

■ Studies show that **regular cancer screenings** can reduce mortality rates.



▲ Figure 2-5 Promoting regular cancer screening can help reduce mortality rates



August 2024 and had served 34,403 individuals by year-end.

- (2) For suicide prevention in school campuses, the Ministry has established Guideline For Campus Suicide Case Care, linking resources across local health departments and schools. In addition, it has worked together with private organizations to introduce Mental Health First Aid (MHFA) to ensure the mental health of the young and prevent suicides. In 2024, a total of 701,710 depression screenings were conducted for older adults, with 7,141 cases referred for treatment, counseling, or additional support services. Suicide reporting and mortality data were analyzed to refine prevention strategies, including mandatory reporting, control of lethal means, gatekeeper training, and expanded access to mental health services and resource networks.
- (3) To promote outdoor physical activity nationwide, the Ministry organized the Walk and Seek Adventure, Nationwide Step Challenge in 2024, an online competition combining virtual treasure hunts with incentives. The campaign attracted 320,279 participants, 98% of whom were aged 18 and above.

### 3. Expanding the coverage rate for the treatment of substance abuse and increasing public awareness

- (1) Of the 201 psychiatric hospitals in Taiwan, the Ministry of Health and Welfare in 2024 designated 146 (72.6%) as substance use treatment facilities. That year, 14,569 individuals received treatment for drug addiction and 4,103 for alcohol dependence. To improve access to treatment, guest dosing services were implemented, with 66 institutions across 21 counties and cities taking part in the initiative. Over the past three years, 16 satellite medication dispensing sites were added. Since 2018, the Ministry has subsidized the establishment of demonstration centers for addiction treatment, and by the end of 2024, 105 local institutions had joined to provide diversified addiction care services.
- (2) To enhance public awareness of drug abuse prevention, the Ministry of Health and



▲Figure 2-6 “Shi Yanwen: Gatekeeper Against Drug Abuse” performed by the Wu Zhou Yuan Glove Puppet Troupe

Welfare launched the Fun in Preventing Drug Abuse campaign and conducted 363 mobile outreach events in 2024 that benefited 142,360 participants. In partnership with private organizations, 154 awareness campaigns were held, engaging 14,014 individuals. A national survey on drug abuse prevention knowledge showed that public awareness had reached the target rate of 81%.

### 4. Enhancing the financial resilience of the National Health Insurance system and promoting the utilization of health screening services

- (1) To safeguard the sustainability of Taiwan’s National Health Insurance (NHI), the Executive Yuan in 2024 allocated an additional NT\$20 billion subsidy. It also implemented revenue-enhancing measures, such as adjusting the premium classification table in line with minimum wage increases, raising salaries for the military, civil servants, and teachers by 4%, and adjusting the minimum insured amount for specific groups to NT\$38,200. In addition, cost-containment strategies were also implemented. The Ministry promoted tiered medical care, strengthened the family physician system, optimized cloud-based systems, reviewed co-payment policies, refined the global budget system, and deployed emerging technologies. As of the end of 2024, the NHI reserve fund stood at NT\$162.2 billion, equivalent to approximately 2.4 months of benefit payouts.



(2) To increase the use of health screenings by the general public, the Ministry of Health and Welfare launched multi-channel campaigns encouraging regular checkups. Medical institutions and public health units were urged to increase outreach to target individuals undergoing initial screenings or those who have not been screened for an extended period. The Ministry also promotes integrated community-based screenings and enhances structured follow-up for abnormal results. This includes personalized explanations, risk assessments, consultations, referrals, and tracking. According to a 2021 National Health Interview Survey, approximately 60% of the population had used various forms of health screening, including government-sponsored adult preventive services, labor screenings, self-paid checkups, school-based checkups, and military conscription physicals.



## Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

### 1. Proactively establishing public childcare centers and continuing to promote quasi-public childcare mechanisms

(1) As of December 2024, Taiwan had established 139 community-based public childcare centers and 343 publicly funded, privately operated infant care centers, with a combined capacity to serve 15,851 children under the age of two. Public childcare capacity has continued to expand. In addition, 22,989 quasi-public home-based childcare providers, representing 93.80% of all eligible providers, and 1,088 quasi-public infant care centers, representing 97.40% of eligible facilities, had signed agreements with local governments and collectively provide quasi-public childcare services to 91,807 children under two.

(2) In response to growing parental demand for public preschool education, the Ministry of Education reached its target of establishing 3,000 publicly funded classes ahead of schedule in 2022. From the 2017 to 2024 academic years, a total of 3,699 classes were added, creating approximately 90,000 additional enrollment slots. In the 2024 academic year alone, 2,039 private preschools joined the quasi-public preschool system, offering over 244,000 enrollment slots. Altogether, public and quasi-public preschools now provide approximately 509,000 affordable enrollment opportunities.

### 2. Ensuring equitable, affordable, and high-quality higher education opportunities for youth and adults

(1) To ensure equal educational opportunities, the Ministry of Education launched the subsidy to reduce the gap in tuition and miscellaneous fees between public and private universities in February 2025 (second semester of academic year 2024). This initiative provides a fixed subsidy of NT\$35,000 for tuition and miscellaneous fees at private universities, narrowing the gap between public and private institutions. Additional subsidies of NT\$15,000 to NT\$20,000 are offered to economically disadvantaged students at both public and private institutions. In addition, the government has expanded its full tuition exemption initiative for senior high and vocational education, where students with Republic of China nationality, excluding those who are repeating a grade or admitted through independent private school recruitment channels, are exempt from tuition fees, thereby fully implementing universal tuition-free access at the senior high and vocational levels. To further ease financial pressure on students and recent graduates with student loans, the government has also implemented measures to improve the student loan application and repayment system.

(2) Each year, based on industry development trends and labor market needs, the Ministry of Labor plans and implements a diverse array of pre-employment training programs, either on its own, through external providers, or by providing subsidies. In 2025, a total of 49,894

unemployed individuals participated in these training programs aimed at improving job skills and promoting employment.

### 3. Increasing youth access to ICT skills

- (1) In accordance with the 12-Year Basic Education Curriculum Guidelines, the Ministry of Education has designated Information Technology as a compulsory subject at senior high schools. In academic year 2024, 100% of the planned classes were successfully offered, reflecting full implementation. In addition, 20% of senior high schools have introduced school-developed ICT-related classes tailored to student needs and the school's development goals.
- (2) In response to demands in the industries and the labor market, the Ministry of Labor has planned and delivered ICT-related vocational training programs in lighting electronics, educational robotics, digital graphic communication, e-commerce, and digital marketing, either on its own, through external providers, or by providing subsidies. In 2024, 5,260 unemployed individuals received training, and the Ministry also assisted 4,146 youths to participate in training programs.

### 4. Ensuring access to education at all levels and vocational training for persons with disabilities, indigenous peoples, and disadvantaged groups

- (1) In academic year 2024, a total of 5,350 admission slots were made available for students with disabilities through aptitude-based counseling and placement. Of these, 3,433



▲Figure 2-7 Review meeting on aptitude-based counseling and placement procedures for students with disabilities, academic year 2024

students registered, and 3,381 were successfully placed, resulting in a placement rate of 98.49%. The remaining 52 students were not placed because they failed to complete the required procedures, such as failing to submit the required application documents by the deadline, being absent during aptitude assessments, being absent during name-calling for admission assignment, or voluntarily withdrawing from the placement process. For students who completed the aptitude-based counseling and placement procedures, each administrative region provides corresponding placement quotas, allowing students to select from the different admission pathways.

- (2) In 2024, the Career Transition and Counseling Service Center under the K–12 Education Administration, Ministry of Education served a total of 2,495 individuals through transition services. It conducted 9,580 workplace visits for internship counseling, provided 8,227 consultations via phone and online platforms, successfully placed 1,357 internships across 819 workplaces, and facilitated employment for 371 individuals at 330 workplaces.
- (3) To ensure access to education at all levels and vocational training for disadvantaged groups, the Ministry of Labor continues to promote a diverse range of pre-employment training programs. These programs offer training opportunities to unemployed individuals and provide full subsidies for specific participants, including persons with disabilities and indigenous peoples, to support their living needs during training. Eligible participants may also apply for living allowances during the training period in accordance with regulations. In 2024, a total of 29,337 unemployed individuals from disadvantaged groups participated in pre-employment training.

### 5. Promoting environmental, cultural, and human rights education

- (1) As of the end of 2024, a total of 273 spaces, sites, installations, or facilities with rich natural or cultural features had been certified as environmental education facilities or venues,



providing integrated professional services in environmental education. In 2024, these certified locations hosted 351,406 outdoor learning visits, involving participants from elementary, junior high, and senior high schools, as well as adult learners, offering the public high-quality venues for environmental education.

- (2) To increase public engagement with museums and local cultural houses, the Ministry of Culture has continued to implement the Museum and Local Cultural House Project and the Subsidizing the Promotion of Museum Industry. These initiatives aim to strengthen museum professional capacity and foster connections between local cultural houses and community resources, thereby encouraging public visits and participation while advancing cultural equity. In 2024, the participation rate for museums and local cultural houses was approximately 49.5%. Efforts will continue to enhance operational expertise and promote public participation.
- (3) Through a range of subsidy programs, the Ministry of Culture has advanced policies to promote multiculturalism, diversity, and cultural accessibility. These include the Operation Directions for Community Building and Multiple Cross-Border Cooperation, Operation Directions on Subsidy for indigenous Peoples Village Cultural Development Project, and Operation Directions on Implementing the Youth Village



▲ Figure 2-8 Winners of the 9th Taiwan Literature Award for Migrants

Cultural Development Project. These programs encourage private organizations to pay attention to multicultural issues related to indigenous peoples, new immigrants, Hakka, Minnan, gender equality, and national languages, while fostering local identity and providing support. Additional subsidies, such as Operation Directions for Subsidizing Literature Reading and Humanistic Activities and Operation Directions for Subsidizing Language-Friendly Environment and Creation, Application and Popularization of Language, aim to encourage private organizations to organize seminars, lectures, workshops, and trainings. These efforts aim to cultivate a language-friendly environment and expand opportunities for the use of local languages. In 2024, a total of 995 projects were subsidized, encouraging active participation by the private sector and youth organizations in multicultural initiatives.

- (4) To encourage the public to visit historical sites of injustice and deepen their understanding of transitional justice, the National Human Rights Museum formulated the Guidelines for Installing Signage Systems at Historical Sites of Injustice. In 2024, the Museum oversaw the installation of signage at 10 publicly owned sites. It also hosted domestic and international guests at its affiliated memorial parks and the Ankeng Reception Room, organizing five special exhibitions on the history of White Terror and human rights in Taiwan. The Museum also organized major public events, including the 2024 Taiwan International Human Rights Film Festival, the 2024 Human Rights Festival, commemorations for the World Human Rights Day, and the Human Rights Day Market. To support educational outreach, six types of teaching kits were distributed to schools of all levels, totaling 60 cases. The Historical Sites of Injustice Archive was expanded to include new digital videos and five immersive online tours. Guided tours and micro-trips were held at various historical and human rights sites, including 123 weekend sessions at the Ankeng Reception Room and four field visits to indigenous human rights landmarks. In total, these initiatives drew 1.253 million visits in 2024.



## SDG 5

### Achieve gender equality and empower all women and girls

#### 1. Promoting gender equality through diverse channels

On October 7, 2024, in celebration of Taiwan Girls' Day, the Ministry of Health and Welfare released a press statement titled "Girls and boys are all treasures; gender equality begins before birth." Later that month, the Ministry published a series of advertisements across online and multimedia platforms, including "Girls and boys are all treasures; health and safety are what truly matter," accompanied by a video advocating against gender-based prenatal screening. These efforts aimed to raise public awareness on gender equality.

#### 2. Strengthening the prevention of domestic violence and sexual assault

(1) In December 2023, the Ministry of Health and Welfare completed amendments to the Domestic Violence Prevention Act, followed by amendments to related sub-laws in July 2024. In the amendments, prevention efforts will focus on three levels: primary prevention, focusing on violence prevention at the community level in order to raise public awareness; secondary prevention, focusing on enhancing the sensitivity of mandated reporters and implementing risk assessments; and tertiary prevention, focusing on increasing the number of protective social workers, promoting the safety net program, and adopting a family-centered service model. By working together with private organizations, these efforts aim to develop diverse support resources, ensuring victim safety and facilitating their recovery and return to autonomy. In 2024, a total of 62,591 individuals aged 18 and above were reported as victims of intimate partner violence by a current or former spouse or partner, including 45,868 women, accounting for 0.44% of the adult female population.

(2) In collaboration with private organizations, Taiwan actively promotes a three-level prevention



▲ Figure 2-9 Gender equality advocacy during the 2024 household registration training program

strategy for sexual assault. This includes public awareness campaigns, setting up of the 113 Protection Hotline to provide a formal channel for seeking assistance, and mandating local governments to provide emergency shelter, accompaniment during reporting and investigation, medical examinations, and psychological counseling based on victims' needs. In 2024, 9,616 sexual assault cases were reported, including 5,728 female victims assaulted by individuals other than their current or former partners. The number was estimated to represent 0.048% of the national female population.

#### 3. Reducing the number of marriage registrations where the applicants are below the legal age

(1) In 2024, among women aged 20 to 24, 0.002% had a marriage record before age 16, and 0.278% had a marriage record before age 18.

(2) To safeguard the physical and mental development of young adults, the Ministry of the Interior implemented an automatic age verification mechanism in its household registration system for marriage applications. This system was updated in line with the January 1, 2023 amendment to Article 980 of the Civil Code, which raised the legal age of adulthood and the minimum marriage age for women to 18. Since the amendment took effect, marriage registration has not been permitted for individuals under 18.

(3) In 2024, the Ministry of the Interior incorporated gender equality education into household registration training courses to raise awareness



among registration officers and promote gender-sensitive practices.

#### 4. Encouraging women's participation in public affairs

(1) To expand women's influence in public affairs, the Ministry of the Interior convened a meeting of civil affairs directors in March 2024, requesting directors of civil affairs bureaus (or departments) in municipalities and counties (cities) to relay to their respective mayors the importance of promoting outstanding female candidates. At the end of 2024, the Ministry formally requested local governments in municipalities and counties (cities) to provide gender ratio data for bureau (department) leadership when submitting personnel appointment proposals, thus enabling mayors to consider gender balance. Where candidates possess comparable qualifications, preference should be given to high-performing individuals from underrepresented genders.

(2) In 2024, the Ministry of the Interior participated in seven political party founding conventions, using the platform to advocate for increased female participation in politics. When disbursing political party subsidies during the same year, the Ministry formally requested the three eligible parties to allocate the funds toward enhancing women's participation and empowerment.

#### 5. Increasing the proportion of women in managerial positions across public and private sectors

(1) In accordance with the Regulations Governing the Promotion and Transfer of Police Personnel, personnel units shall submit a list of candidates for promotion based on cumulative scores to the personnel review committee, which will select qualified individuals based on merit. The procedures are gender-neutral. In addition, the regulations stipulate that in municipal and county (city) police departments, at least one of the positions of captain or deputy captain in the Women's and Children's Protection Division must be held by a female officer. As of the end of 2024, female officers ranked not lower than Police Officer Rank 4 accounted for 15.56% of all police officers.

(2) To encourage businesses to promote women to managerial positions, the Financial Supervisory



▲Figure 2-10 Ring the Bell for Gender Equality at the Taipei Exchange on March 8, 2024

Commission (FSC) first clarified the definition and scope of the term “manager” in 2019. Starting from 2020, the FSC has requested the Taiwan Stock Exchange and the Taipei Exchange to collect and establish gender-based statistics of managers in listed and emerging stock companies based on the 2019 definition. As of the end of 2024, there were a total of 34,201 managers in listed and emerging stock companies in Taiwan. Among them, 11,753 were women, accounting for approximately 34.36% of all managers, up from 29.4% at the end of 2020.

(3) The Ministry of Economic Affairs has promoted the Women Entrepreneurship Program, which offers customized and integrated services for female entrepreneurs at different stages of their business startup. The goal is to create a female-friendly business startup environment so as to enhance women's economic power and competitiveness. In 2024, a total of 2,378 women participated in entrepreneurship training



▲Figure 2-11 The 13th Women Entrepreneurship Award ceremony



programs. In addition, 94 consultation sessions were provided to women-led businesses, and 13 winners were selected for the Women’s Entrepreneurship Award.



## Ensure environmental quality and sustainable management of environmental resources

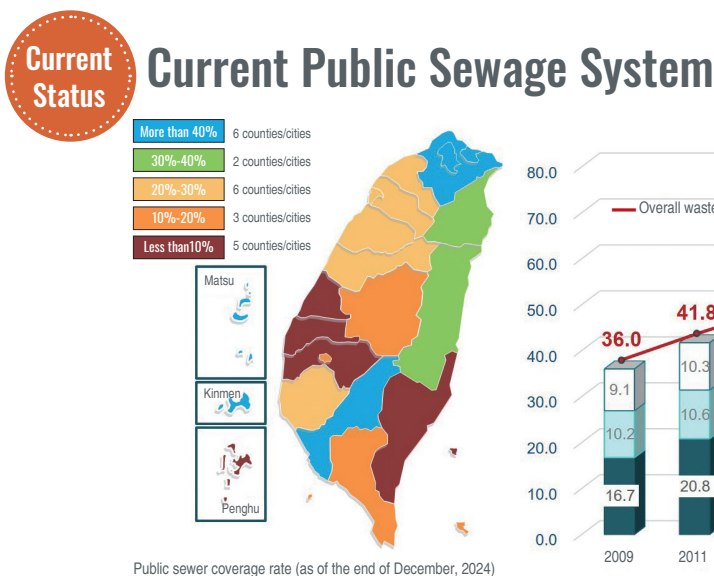
### 1. Ensuring adequate supply and high-quality drinking water; improving the quality of drinking water

- (1) As of the end of 2020, Taiwan’s national tap water coverage rate was 94.86%, and it increased to 95.78% in 2024. Coverage rates by provider were as follows: Taiwan Water Corporation at 95.04%, Taipei Water Department at 99.71%, Kinmen County Waterworks at 94.57%, and Lienchiang County Waterworks at 86.43%.
- (2) To mitigate the risks posed by newly identified contaminants and enhance drinking water management, the Ministry of Environment issued the Guidelines for the Detection and Screening of Newly Identified Substances in Drinking Water

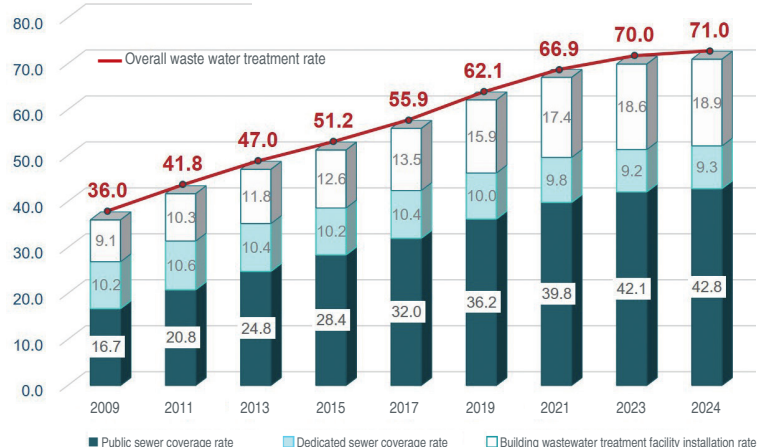
on March 11, 2024, with the water utilities, the National Environmental Research Academy, and the Department of Water Quality Protection working together to ensure water quality. On May 24, six reference values for these substances were published to guide water utilities in monitoring and oversight. In addition, Article 3-1 of the Drinking Water Quality Standards was amended on November 25 to incorporate reference values for per- and polyfluoroalkyl substances (PFAS) (PFOA + PFOS ≤ 50 ng/L and PFOS + PFHxS ≤ 70 ng/L.) Relevant regulations for drinking water quality oversight were also introduced. Beginning in 2025, water treatment facilities are required to conduct self-monitoring. The Ministry of Environment has also included PFAS oversight in its drinking water inspection program, requiring more frequent sampling. Starting July 1, 2027, entities failing to meet PFAS standards will be required to make improvements within a specified timeframe to ensure the safety of drinking water for the public.

### 2. Promoting proper treatment and monitoring of wastewater and sewage

- (1) The Ministry of the Interior continues to advance the 6th Stage of the Sewer Construction Plan (2021–2026). As of the end of December 2024, a total of 4,056,395 households in Taiwan had been connected to the public sewer system, reaching a



**93** sewage treatment plants  
**83** water resource centers operational  
**User connection rate: 4.056** million households  
 (as of December 2024)



▲Figure 2-12 Outcomes of public sewerage system expansion efforts



coverage rate of 42.82%, with an overall sewage treatment rate of 70.98%. In 2024, 155,769 new connections were completed. The Ministry also continues to implement the Program to Promote the Use of Reclaimed Water at Public Wastewater Treatment Plants (2021–2026). As of the end of December 2024, six facilities in Fengshan and Linhai in Kaohsiung, Yongkang and Anping in Tainan, northern Taoyuan, and Shuinan in Taichung had begun supplying reclaimed water, with a combined daily capacity of 164,200 metric tons. In addition, the three-year average compliance rate for industrial wastewater inspections reached 91.71%, meeting the target set for 2024.

- (2) The Ministry of Environment has tracked the average River Pollution Index (RPI) across 50 major rivers in Taiwan, and the index has declined from 3.8 in 2002 to 2.5 in 2024. The number of monitoring stations reporting severe pollution has steadily decreased from 66 in 2002 to a historic low of just 7 in 2024, indicating a long-term trend of river quality improvement. In addition, through the data comparison and filtering functions of ChemiCloud, the interministerial chemical substance data-sharing platform, 180 specific instances requiring the tracking of chemical substance flows were identified in 2024. These cases were shared via email with relevant agencies to enhance the effectiveness of chemical substance management.
- (3) In support of the national net-zero policy and efforts to improve wastewater treatment, Sustainable Water Innovation Award was



▲ Figure 2-13 Press conference for the presentation of the Sustainable Water Innovation Award

launched to recognize achievements in water treatment, resource recovery, and smart management. In 2024, the first round of selections honored 14 enterprises and seven partner firms for their contributions to sustainable water practices.

### 3. Enhancing water use efficiency

- (1) In 2024, a total of 2,037 products were issued licenses to use the water efficiency label. Notably, applications for gold-grade licenses have now outnumbered those for the general-grade licenses. Currently, six product categories are required to carry the label, including washing machines and single-flush water-saving toilets. In addition, the total tap water consumption across government agencies and schools in Taiwan has steadily declined from 133.4 million metric tons in 2014 to 115.07 million metric tons in 2024. This demonstrates the public sector's leadership in water conservation and the effectiveness of its efforts.
- (2) In 2024, the Ministry of Economic Affairs organized three training sessions for water management personnel to strengthen industrial water governance and enhance their know-how in water conservation technologies. The Ministry also conducted industrial water-saving diagnostics and helped 60 enterprises develop optimized water-saving plans and water reuse measures, with the annual water savings from these efforts estimated at 2.24 million metric tons. In addition, to improve water management in industrial parks and ensure compliance with reporting requirements, the water recycling rate across industrial parks increased from 46.0% in 2002 to 74.0% in 2024. In line with the action plan to ensure industrial water supply stability, efforts will continue to achieve the target rate of 75.0%.
- (3) In 2024, semiconductor and optoelectronics manufacturers in science parks achieved process water recycling rates exceeding 85%. Water-saving diagnostics and assistance were provided to 36 firms (18 newly assisted, 18 follow-up), with tailored water-conservation plans developed for each. The total potential annual



water savings is estimated to be 918,000 metric tons.

- (4) The Ministry of Economic Affairs continues to implement its leakage reduction initiative. Taiwan Water Corporation's leakage rate has decreased from 19.55% in 2012 to 11.99% in 2024.
- (5) To improve water use efficiency in agriculture, the Ministry of Agriculture completed 103.1 kilometers of irrigation channel upgrades in 2024 to reduce water transmission losses. It also implemented piped irrigation systems across 2,395 hectares, using irrigation management and rotational watering practices to ensure efficient use of water resources during irrigation. In addition, recirculating aquaculture systems installed by fish farmers expanded to 82.37 hectares, improving freshwater use efficiency and reducing reliance on groundwater.

#### **4. Improving water environments and water purification**

- (1) The Ministry of Environment has actively implemented measures for pollution remediation in rivers. In 2024, the water purification facility at Nankan Creek and the San-Yei River interception and Hu-Wei-Liao Water Resources Recycling Center were completed and commissioned. These facilities successfully reduced the River Pollution Index (RPI) at Nankan Creek from 6.1 to 4.8 and the RPI at the San-Yei River from 8.3 to 5.1, effectively lifting both rivers out of the "severely polluted" category. Together, these facilities increased daily wastewater treatment capacity by 33,000 metric tons. In addition, the Bawen Livestock Waste Treatment Center, the first centralized livestock waste processing facility in Tainan City, was established to treat wastewater from approximately 3,600 cattle across 21 livestock farms. The resulting bioliquid and biosolids are used to irrigate napier grass fields and converted into vermicompost, while captured biogas is utilized for power generation.
- (2) To ensure a stable water supply and meet national development needs through 2036, the Ministry has formulated a national water resources management plan and launched the Basic Plan for Water Resources Management

in Every Region of Taiwan. Key infrastructure priorities include integrated watershed management, development of a western corridor water supply pipeline network, and increasing water production through the use of advanced technology. In 2024, these initiatives yielded an increase of 156,300 metric tons per day in available water resources, including 79,700 metric tons per day from new sources (such as the elevation of Baoshan No. 2 Reservoir, completion of seawater desalination plants in Qimei and Jibei, and partial or full commissioning of reclaimed water facilities across Taiwan). In addition, 76,600 metric tons per day were conserved by reducing leakage in public water supply systems across Taiwan.

- (3) To ensure the sustainable use of soil and groundwater resources, the Ministry of Environment, in accordance with Article 6 of the Soil and Groundwater Pollution Remediation Act, completed a total of 1,488 sediment quality inspections by the end of 2024. These included 235 inspections in rivers, 251 in reservoirs, and 990 in irrigation channels. All results have been published on the Taiwan Sediment Quality Information System. In addition, to improve the efficiency of site remediation, the Ministry established key control points for each remediation phase and incorporated them into local performance assessment mechanisms. As of December 2024, a total of 1,240 industrial sites had been listed for regulatory oversight. Of these, 975 sites have since been delisted, accounting for 1,724 hectares, while 265 sites, covering 855 hectares, remain under regulatory oversight.

#### **5. Furthering general waste reduction, proper disposal, and recycling**

- (1) To encourage reduced use of plastic bags in traditional markets, the Ministry of Environment issued the Guidelines for Promoting Reduction in Plastic Bag Use in Traditional Markets in 2024. Vendors are instructed to proactively ask customers whether they require plastic bags, rather than offering them by default. As of July 1, 2024, nationwide implementation of this policy has led to an estimated reduction of 65



million plastic bags. In addition, to encourage public participation in plastic reduction efforts, the Ministry also issued Parties Subject to and Means for Single-Use Amenities Restrictions that required accommodation providers to replace small bottles (under 180 ml) of liquid toiletries and skincare products with larger dispensers, and single-use personal hygiene items must only be provided upon request.

- (2) At the 3,924th meeting of the Executive Yuan, Premier Cho Jung-tai instructed the Ministry of Environment to assist local governments in achieving proper disposal of exposed waste by the end of 2026. Beginning in 2024, the Ministry allocated NT\$1.2 billion over three years to support local governments in enhancing landfill coverage, waste sorting and packaging, disaster prevention, and the establishment of AI-powered digital monitoring platforms. By the end of 2024, the volume of temporarily stored exposed waste at landfill sites nationwide had steadily declined from 840,000 metric tons in 2023 to 750,000 metric tons.
- (3) The Ministry of Environment continues to support local governments in extending the service life and optimizing the facilities of incineration plants. To date, 17 facilities have initiated upgrade projects. By the end of 2024, new incinerators had been commissioned in Taoyuan City, Hualien County, Taitung County, and the Sixth Naphtha Cracker Complex in Mailiao, Yunlin County. The maximum annual waste treatment capacity of incineration facilities nationwide has now reached 6.81 million metric tons, ensuring the proper disposal of municipal solid waste.

## 6. Improving air quality

The Ministry of Environment launched Phase II of the Air Pollution Control Program (2024-2027), in collaboration with nine central government agencies. The program outlines 37 control strategies across eight key dimensions. In 2024, the national annual average concentration of fine particulate matter (PM<sub>2.5</sub>) was 12.8 µg/m<sup>3</sup>, compared to 16.2, 14.1, 14.4, 12.4, and 13.7 µg/m<sup>3</sup> from 2019 to 2023, respectively. The proportion of days with moderate or good air quality (PM<sub>2.5</sub> AQI ≤ 100) reached

97.4%, up from 93.6%, 96.9%, 94.4%, 97.3%, and 97.3% over the previous five years. Meanwhile, the proportion of days with poor air quality (PM<sub>2.5</sub> AQI > 100) declined to 2.6%, compared to 7.4%, 3.1%, 5.6%, 2.7%, and 2.7% from 2019 to 2023, demonstrating a consistent year-on-year improvement.

## 7. Improving public toilet facilities

The Ministry implemented initiatives to construct and renovate accessible, user-friendly public toilets, improving basic functionality, gender inclusivity, family accommodations, elderly access, and facilities for persons with disabilities. It has also provided subsidies to local governments for the renovation and construction of public toilets in order to enhance the quality of public toilets. As of the end of 2024, 97% of all public toilets nationwide listed for regulatory oversight had achieved the highest excellence rating.



## Ensure access to affordable, reliable, sustainable and modern energy for all

### 1. Diversifying energy deployment to increase the share of clean fuel-based power generation

- (1) In 2024, Taipower generated 118.7 billion kWh from natural gas (accounting for 47.2%) and 30 billion kWh from renewable energy sources (accounting for 11.9%). The combined share of clean fuel-based power generation was 59.2%, a 5.2 percentage point increase compared to 54% in 2023.
- (2) Following the commissioning of the Renze Geothermal Power Plant in Yilan in 2023, Taipower continued its geothermal development efforts. On October 1, 2024, it partnered with Taiwan Cogeneration Corporation to sign Datun Mountain Geothermal Collaboration Memorandum of Understanding with Baseload Power Taiwan, an internationally renowned



▲ Figure 2-14 Taipower signs the Memorandum of Understanding for Datun Mountain Geothermal Collaboration with Baseload Power Taiwan and GreenFire Energy

geothermal developer, and GreenFire Energy, a geothermal technology provider. This joint initiative aims to explore geothermal resources in the Datun Mountain region in northern Taiwan, with the goal of scaling up geothermal development and maximizing its strategic value as a key driver in Taiwan's energy transition toward net-zero emissions.

(3) As of the end of 2024, cumulative solar PV installations reached 14.28 GW. In addition, after successfully integrating at least 185 landowners over a three-year period, a combined fish farm and solar power facility was established in Qigu District, Tainan City, southern Taiwan. The plant was designed around the operational needs of eight original aquaculture farmers, incorporating the cultivation of Asian hard clams, mullet, and milkfish. Throughout the development process, the project, which exemplified the principle of multi-functional land use, prioritized local engagement and dialogue to achieve a balance between sustainable aquaculture and green energy generation.



▲ Figure 2-15 Ta Ya Group's Zhiguang combined fish farm and solar power facility in Qigu District, Tainan City

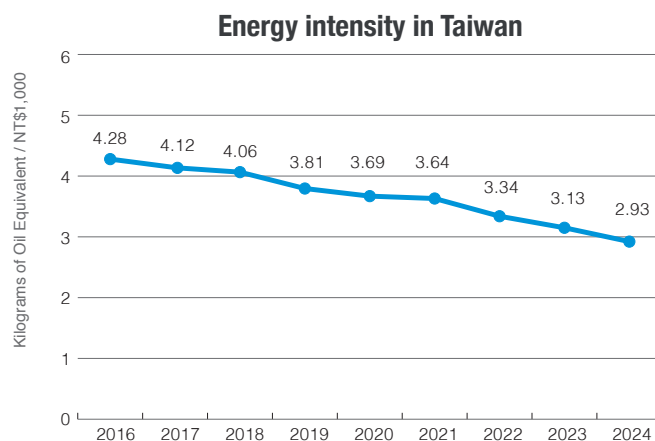
(4) As of the end of 2024, Taiwan had installed a cumulative total of 374 offshore wind turbines, with a grid-connected capacity of 2.987 GW, ranking 7th globally. Compared to 2023, grid interconnection increased by approximately 70%.

## 2. Steady improvements in energy efficiency

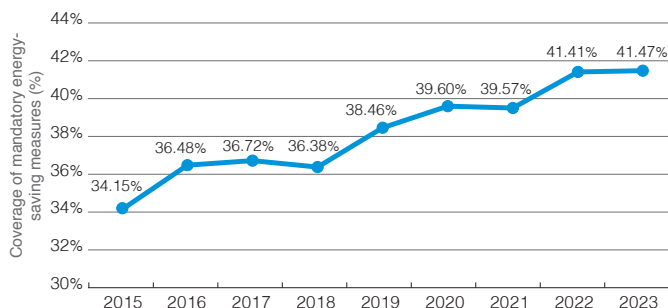
Between 2016 and 2024, Taiwan's energy intensity declined at an average annual rate of approximately 4.30%, surpassing the original target of 2%. This progress was driven by the sustained implementation of energy-saving regulations, demonstration and guidance on energy efficiency technologies, and the development of innovative energy-saving solutions.

## 3. Expanding the coverage of mandatory energy-saving measures

Through the implementation of equipment and appliance efficiency standards, regulations on vehicle fuel consumption, and industrial energy-saving requirements, Taiwan's share of final energy



▲ Figure 2-16 Decline in energy intensity from 2016 and 2024



▲ Figure 2-17 Share of final energy use covered by mandatory efficiency policies Coverage of mandatory energy-saving measures in Taiwan (2015–2023)



use covered by mandatory efficiency policies increased from 34% in 2015 to 41.47% in 2023, surpassing the original target of 41%.

#### 4. Fine-tuned electricity price adjustments to mitigate impacts on livelihoods and maintain the competitiveness of industries

From 2022 to 2024, rising international fuel prices were the primary driver of electricity rate adjustments. In Taiwan, these adjustments were calibrated to support daily life, stabilize consumer prices, and safeguard industrial competitiveness, with pricing structures fine-tuned across user categories. Industrial electricity rates were adjusted based on operational conditions and consumption levels of different business types. Following two rounds of adjustments in 2024, the industrial electricity rate reached NT\$4.27 per kWh, still lower than those in neighboring Asian economies such as Japan and Republic of Korea. This helped stabilize domestic consumer prices and sustain Taiwan's export competitiveness.



### Promote sustained, inclusive and sustainable economic growth, full and productive employment, and decent work for all

#### 1. The economy demonstrated strong resilience and robust growth

In 2024, the economy demonstrated its resilience as both investment and exports grew, highlighting the economy's robust performance.

(1) In response to changes in the global economy, the government accelerated implementation of the eight strategic goals under the National Project of Hope to help industries maintain a competitive edge worldwide. The key policy priorities include: expanding investment in society, easing household burdens; powering the economy with innovation and smart technology;

promoting green growth and net zero by 2050; expanding medical investment for a healthier Taiwan; balancing development to spread hope across Taiwan; cultivating soft power, building a national brand; achieving a pluralistic, egalitarian, prosperous society; and forging a resilient Taiwan, upholding security and peace. These efforts aim to realize national vision of An Innovation and Prosperous Taiwan, A Just and Sustainable Taiwan, A Democratic and Peaceful Taiwan.

- (2) Taiwan led global economic growth, reclaiming its position at the forefront of the Four Asian Tigers: While global economic growth slowed from 2.99% in 2023 to 2.80% in 2024, Taiwan's economy, driven by surging global demand for AI, expanded against the trend. Taiwan's economic growth reached 4.84% in 2024, up from 1.12% in 2023, marking the second-highest rate in the past decade. The growth exceeded the global average of 2.80% and the growth rates of Singapore (4.38%), Hong Kong (2.50%), and Republic of Korea (1.95%).
- (3) Exports and private investment resumed positive growth. Fueled by AI-related demand, Taiwan's exports reached US\$475 billion in 2024, the second-highest in recent years. Including the export of services, the real export growth rate rebounded from -4.08% in 2023 to +8.71%. Investment also increased, with nominal fixed investment reaching NT\$6.57 trillion, a historic high. The real fixed investment growth rate rose from -7.76% in 2023 to +6.43%.

#### 2. Supporting SMEs in implementing circular economy principles in product development and applications, and facilitating access to green finance for SMEs in green industries

(1) The Ministry of Economic Affairs provided guidance to 51 SMEs across 9 supply chains to apply innovative circular economy principles in developing low-carbon products and diversifying the use of sustainable materials. Examples include using recycled materials to make liquor displays, producing green products from electronic waste, establishing circular systems for plastic drum liners, and using recycled



▲ Figure 2-18 The SME Circular Co-Creation Pavilion at the 2050 Net Zero City Expo

pineapple leaf fibers to manufacture products. These initiatives helped meet the requirements of international brands, generated NT\$401.9 million in green economic value or investments, and reduced carbon emissions by 8,308 metric tons.

(2) The Ministry of Economic Affairs continued to utilize credit guarantee mechanisms to help green-sector SMEs access capital needed for operational development. From the program's launch in November 2016 through the end of 2024, the Ministry has facilitated financing totaling over NT\$836.653 billion for green industry SMEs.

(3) In November 2024, the Executive Yuan approved a plan to revitalize and diversify the nation's micro-, small-, and medium-sized enterprises (MSMEs), using three strategies, three support measures, and a single service window. The program will assist MSMEs in advancing digital and net-zero transitions and expanding domestic and international sales channels. It also provides loan support, tax incentives, and credit guarantee mechanisms to strengthen the resilience and operational capacity of businesses.

### 3. Creating a supportive environment for fintech innovation

(1) To promote the development of financial technology, the Financial Supervisory Commission (FSC) continued to amend the

relevant regulations. In 2024, a total of 44 regulations and administrative orders were amended or issued.

(2) The FSC also launched a pilot program for virtual asset custody services, expanded the operational scope of digital-only banks and eased restrictions on offline activities, reopened applications for digital insurance companies, issued fintech-related guidelines, and launched multifaceted initiatives to support startup development. These efforts, spanning regulatory adaptation, talent cultivation, technical support, financial assistance, and ecosystem building, are part of the FSC's ongoing commitment to advancing fintech innovation.

### 4. Fostering a supportive entrepreneurial environment and bridging the education-to-employment mismatch

(1) To assist individuals in starting businesses, the Ministry of Labor has worked to create a more supportive entrepreneurial environment by offering interest subsidies on start-up loans. These measures help address barriers to financing and ensure stable operations during the early stages of entrepreneurship. In 2024, the Ministry approved 566 applications for Micro Start-up Loans.

(2) To promote employment among persons with disabilities, the Ministry of Labor has leveraged employment services and vocational rehabilitation resources to carry out job redesign to remove workplace barriers. In 2024, a total of 22,342 individuals with disabilities were successfully placed in employment, achieving a placement rate of 80.6%.

(3) To enhance youth skills and bridge the education-to-employment mismatch, the Ministry of Labor has launched various training programs tailored to different stages of youth development. By integrating industry and educational resources, these initiatives aim to strengthen professional competencies and employability, assisting the youth in securing suitable employment. In 2024, 29,002 young people participated in vocational training programs.



▲Figure 2-19 2024 Liyu Lake Firefly Festival

## 5. Advancing sustainable tourism, supporting local industries, and integrating tourism with community-based businesses

(1) The Ministry of Transportation and Communications actively promotes sustainable tourism in Taiwan by mapping national tourism resources and developing theme-based travel experiences including ecology, culture, cuisine, and wellness, as well as premium itineraries. Through cross-sector resource integration and sharing, the Ministry has organized locally distinctive travel routes to guide the tourism industry toward diversity, quality, safety, and sustainability. In 2024, a total of 32 eco-tourism itineraries were completed, including: Yilie! Sea-Style Living, which is a coastal tourism initiative that celebrates indigenous culture, ocean-centered lifestyles, and community hospitality; a nighttime tour of the unique geological landscape at the Xiaoyeliu Scenic Area in Taitung; firefly-watching at Liyu Lake; a spring birdwatching tour in Penghu; and a cultural exploration of Matsu's Mindong settlements.

(2) The Ministry of the Interior continued to promote eco-tourism and support local community industries. In 2024, it organized 49 eco-tours, which included Sheding Village Eco Tour at Kenting; a cultural journey into the Bunun Maravi Trail at Yushan National Park; Ankang Community Eco-Tour at Yangmingshan National Park; and

Tpdu Yoga and Huaguoshan Coffee in Tianxiang at the Taroko National Park. These initiatives foster local industry development and strengthen integration with community-based enterprises.



## Build affordable, safe, environmentally friendly, resilient and sustainable transportation

### 1. Promoting the development of public road transportation

(1) In 2024, Taiwan's highway public transport system recorded 981 million passenger trips, falling short of the annual target of 1.008 billion. However, compared to 2023, which recorded 960 million trips, this figure represents a 2.23% increase, indicating a gradual recovery in ridership following the COVID-19 pandemic. The Ministry of Transportation and Communications (MOTC) will continue to promote highway public transport initiatives, improve operational environments across regions, promote the TPASS commuter pass program, and develop different kinds of fare incentives to encourage the use of public transport and foster nationwide development of the public transport system.



▲Figure 2-20 The Keelung Intercity Transit Station, funded under the Public Transport Development Program, is now officially in operation



(2) To reduce the average age of city buses and enhance accessible transport services, the MOTC has continued subsidizing local governments through its urban bus electrification program to procure accessible buses. By the end of 2024, a total of 7,835 accessible buses were in operation in cities, accounting for 74.24% of the urban fleet and surpassing the year's target of 73%.

(3) To ensure basic transport services in rural areas and address service gaps, the MOTC continued to promote its Happy Bus program in 2024. By year-end, the program was implemented in 186 townships, covering 475 routes (including 240 routes in 62 remote areas). The national coverage rate for rural highway public transport, defined as the proportion of households in rural areas which can access bus service within 500 meters, reached 94.37%, exceeding the annual target of 92.5%.

## 2. Promoting rail transport infrastructure and improving services

(1) The strong earthquake in Hualien on April 3, 2024, and typhoons in July and October had a significant impact on rail transport. In 2024, Taiwan Railways recorded 237 million passenger trips. Although the figure fell short of the annual target of 239.6 million, it marked a 2.16% increase compared to the 232 million passenger trips in baseline 2015 and an 8.07% increase over 2023, which recorded 219.3 million passenger trips. The performance indicator achievement rate also rose from 91.63% in 2023 to 98.91% in 2024. Taiwan Railways will continue collaborating with local governments to launch or integrate TPASS commuter pass (including short-term options) and support the Highway Bureau's TPASS frequent rider incentives. Upcoming initiatives include app-based ticket exchanges and multi-ticket retrieval for passengers with special status, aimed at improving travel convenience and boosting ridership.

(2) In 2024, Taiwan High Speed Rail (THSR) recorded 78.25 million passenger trips, a 54.8% increase compared to 2015, which recorded 50.56 million trips. The figure surpassed the annual target of 65.52 million. THSR will continue

promoting different fare options, including periodic tickets, multi-ride tickets, discounts for university students, and early bird discounts, as well as expand cross-sector partnerships such as T Holiday, bundled ticketing, and group discounts. The tickets will be offered through ticketing agents and the THSR corporate website to further develop the tourism market.

## 3. Enhancing road traffic safety

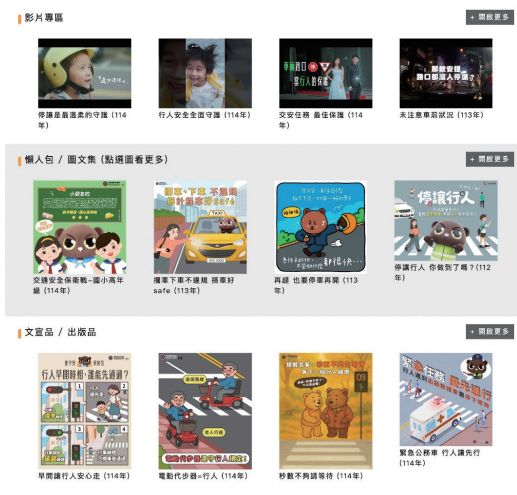
In 2024, the nationwide 30-day traffic fatality count reached 2,950. Although the figure represents a reduction of 73 deaths (2.4%) compared to 2023, it still fell short of the annual target of a 5% reduction. Pedestrian fatalities totaled 366, down by 14 deaths (3.7%) year-on-year. The MOTC implemented the following measures:

(1) Infrastructure improvements: In 2024, MOTC completed the following projects: safety upgrades at 784 high-risk pedestrian intersections; improvements at 2,978 provincial road intersections carried out by the Highway Bureau; 228 road improvement projects at school zones; implementation of leading pedestrian intervals and dedicated pedestrian signal phases to enhance crossing safety; and the pedestrian crossing setback project to enhance visibility and safety. In addition, the public reported 1,996 intersections in need of improvement, of which 1,601 were completed. Progress was published monthly on the MOTC's Road Safety Platform. All subsidized projects were supervised in accordance with guidelines formulated by both the Ministry of the Interior and MOTC to ensure local government compliance and track execution progress.

(2) Public campaign and outreach: The MOTC produced visual materials and short videos promoting pedestrian right-of-way. Outreach was expanded via social media and local governments. Targeted messaging for older adults, who accounted for a high proportion of pedestrian incidents, was delivered through television, print ads, and community-based campaigns in parks, senior centers, and care centers.



▲Figure 2-21 Main visual of the Road Safety Platform (left); promotion of traffic safety for pedestrians and the elderly through videos and graphic materials (right)



(3) Public communication and oversight through the Road Safety Platform: The MOTC publishes monthly data on traffic accidents and infrastructure improvements by city and county to enhance transparency.

## SDG 10

### Reduce inequality within and among countries

#### 1. Enhancing employment competitiveness for indigenous peoples and assisting persons with disabilities to gain stable employment

(1) The Council of indigenous Peoples, in collaboration with the relevant ministries, has continued to implement programs to promote employment among indigenous peoples, enhance their competitiveness in the labor market, and create long-term, stable job opportunities for indigenous communities. According to a survey on the employment status of indigenous peoples, the difference in unemployment rates between Indigenous and non-Indigenous populations decreased from 2.23 percentage points in 2009 to just 0.07 percentage points as of June 2024. In addition, the average monthly income for employed indigenous individuals rose from NT\$24,729 in

2009 to NT\$34,849 in June 2024, an increase of over NT\$10,000.

(2) Safeguarding the rights of persons with disabilities and providing employment assistance

A. As part of its commitment to the Convention on the Rights of Persons with Disabilities (CRPD), the Ministry of Health and Welfare reviewed 462 laws and administrative measures and, by the end of 2024, had completed revisions to 453 items, achieving a 98.05% completion rate.



▲Figure 2-22 Through job redesign services, the Ministry of Labor subsidizes the installation of mobile hoists to improve mobility and reduce lifting-related difficulties



B. The Ministry of Labor actively assists persons with disabilities in seeking employment by promoting job placement services, providing resources for vocational rehabilitation, and encouraging workplace accommodations through job redesign initiatives. From 2021 to 2024, a total of 85,289 individuals with disabilities were successfully placed in employment, achieving a placement rate of 79.12%.

## **2. Promoting gender equality and eliminating employment discrimination; establishing a comprehensive framework for gender-based violence prevention and child protection**

- (1) Through its employment equality portal, the Ministry of Labor promotes workplace gender equality and anti-discrimination policies. By the end of 2024, outreach efforts had reached approximately 4.8 million individuals.
- (2) To provide more support services to the public, the Ministry of Health and Welfare has set up a 113 Hotline, which provides 24/7 nationwide support and reporting services for cases involving domestic violence, sexual assault, child and youth protection, elder protection, and protection of persons with disabilities. The hotline also handles support for sexual harassment cases and referrals for appeals, and offers online support, SMS reporting, and multilingual interpretation services to ensure accessibility for persons with hearing or speech impairments and foreign nationals. In 2024, the 113 Hotline received a total of 80,521 calls, of which 72,850 were valid cases requiring assistance. Among these, 90.47% were initiated by individuals who proactively reported incidents or sought help.

## **3. Advancing comprehensive immigration policy**

- (1) To actively recruit foreign professionals, the Ministry of the Interior extended the initial residence period for Entrepreneur Visa holders to two years and revised the application guidelines, fee schedule, and online application system. These updates took effect on July 1, 2023. As of the end of 2024, a total of 381 individuals were approved for residence

under the Entrepreneur Visa program, an increase of 63 individuals compared to 2023, representing a 19% growth. In addition, the Act for the Recruitment and Employment of Foreign Professionals was amended in 2021 to ease residence requirements for professionals and their dependents. As of December 2024, 12,082 Employment Gold Cards had been issued, an increase of 3,120 from the previous year, marking 34% growth. To encourage outstanding overseas Chinese students and foreign students to remain in Taiwan after graduation, the Immigration Act was amended on June 28, 2023 and came into effect on January 1, 2024. Under the amended Act, the post-graduation job-seeking period was extended from one year to two years. In 2024, a total of 3,520 students benefited from this policy.

- (2) Streamlining the administrative procedures for the application of Alien Resident Certificates (ARCs) by overseas Chinese students and foreign students: Administrative procedures for the application of Alien Resident Certificates (ARCs) were simplified for overseas Chinese and foreign students who have received approval from education authorities to study in Taiwan. The same applies to foreign students enrolled in Mandarin language programs at university-affiliated institutions who have completed at least four months of study and intend to continue for three months or more. Eligible students holding visitor visas may now apply directly to the National Immigration Agency, without needing to obtain a residence visa from the Bureau of Consular Affairs. All ARC applications for enrolled overseas Chinese and foreign students are now processed entirely online, with ongoing system enhancements to ensure user-friendly procedures. In 2024, a total of 81,338 individuals benefited from this streamlined process, an increase of 15,135 compared to 2023, representing 23% growth.

## **4. Implementing the University Social Responsibility (USR) Program**

The Ministry of Education launched Phase III of the University Social Responsibility (USR) Program (2023-2024), continuing to subsidize 251 projects



▲ Figure 2-23 The Namasia and International Indigenous Sustainability Project. Through long-term engagement and support, the initiative helps the younger generation in Namasia in preserving their cultural identity

across 112 universities. The program encourages universities to match their work with the 17 UN SDGs, integrating existing knowledge and resources and collaborating with regional schools to establish platforms for international exchange. These efforts aim to connect with global sustainability trends while enabling universities to review and refine their own long-term sustainability goals. Results of the USR Program demonstrated the strongest linkage with the following five SDG indicators: Quality Education (SDG 4), Sustainable Cities and Communities (SDG 11), Good Health and Well-being (SDG 3), Responsible Consumption and Production (SDG 12), and Industry, Innovation, and Infrastructure (SDG 9).

### 5. Strengthening the capacity for social innovation, developing diverse models for social innovation, and fostering a supportive ecosystem for social enterprises

(1) Mobilizing resources for social innovation: The Ministry of Economic Affairs launched the Buying Power: Social Innovation Products and Services Procurement Award to encourage the purchase of products and services from social innovation organizations and collaboration with these organizations. The MOEA organized matchmaking events and briefing sessions to

create collaboration opportunities and improve business operations. In 2024, award recipients included government agencies, financial institutions, e-commerce platforms, retail chains, food service companies, and tech firms. From 2019 to 2024, total procurement reached NT\$7.47 billion.

(2) Cultivating high-impact social innovation enterprises: Through its Social Innovation Industry Partner Group, the Ministry of Economic Affairs brings together businesses and social innovation organizations to channel resources from across the industrial and commercial sectors, using theme-based matchmaking and networking events to foster long-term partnerships and expand market opportunities. Between 2019 and 2024, the MOEA facilitated resource matching for 260 businesses and social innovation organizations.

(3) Training in social innovation project management: To address labor development challenges, the Ministry of Labor continues to cultivate talent in social innovation to help develop the workforce. In 2024, it compiled teaching materials and offered specialized training courses to strengthen the competencies of professional personnel. From 2018 to 2024, a total of 1,582 individuals completed training.

### 6. International technical cooperation

To fulfill its mandate as Taiwan's dedicated foreign aid agency, the International Cooperation and Development Fund (TaiwanICDF) has, in line with the government's foreign policy, initiated a comprehensive upgrade and transformation of international development cooperation under the framework of the Diplomatic Allies Prosperity Project. This marked a shift from the traditional focus on consolidating diplomatic alliances to a broader emphasis on forging prosperity partnerships, integrating Taiwan's technological and human resources to deliver holistic solutions that address critical development needs in diplomatic allies. As of the end of 2024, TaiwanICDF implemented 88 international technical cooperation projects, including initiatives such as Capacity Building



Project for Microfinance Ecosystem Focusing on Grassroots Women in Eswatini and Flood Warning Capacity Improvement for the Belize River Basin Project.



## Make cities and human settlements inclusive, safe, resilient and sustainable

### 1. Preserving cultural and natural heritage

(1) In 2024, the Council of indigenous Peoples continued to implement its Traditional Indigenous Lands, Ancient Trails, and Cultural Sites Ecological and Environmental Survey and Maintenance Project. A total of 52 traditional cultural sites, including old settlements and ancient trails, were documented and archived, while a total of 3,743 kilometers of roads underwent maintenance. In addition, the project included efforts to steward tribal and traditional mountain-water resources, enrich and nurture afforestation zones, prevent and control invasive species, and promote sustainable land use, covering a total of 3,708 hectares. These actions aim to balance the preservation of indigenous cultural heritage with the sustainable

management of natural ecological resources.

- (2) In 2024, the Hakka Affairs Council completed restoration of 50 culturally significant Hakka spaces, including the Lu Dachuan Ancestral Hall in Taoyuan. A total of NT\$117.898 million was invested in the preservation and revitalization of cultural assets, including monuments, historic buildings, settlement clusters, and folk artifacts in Hakka communities. The average per capita expenditure was NT\$5.04.
- (3) As of 2024, the Ministry of Culture had registered 2,986 tangible cultural assets at both central and local levels, including 1,054 monuments, 1,749 historic buildings, 20 commemorative buildings, 55 archaeological sites, 23 groups of buildings, 78 cultural landscapes, and 7 historic sites. In addition, there were also 2,595 officially designated antiquities. A total of 600 intangible cultural assets were registered, comprising 197 traditional crafts, 142 traditional performing arts, 248 items of folklore, 8 oral traditions and expressions, and 5 categories of traditional knowledge and practices. The Ministry invested NT\$2.27 billion in cultural heritage preservation and maintenance, with an average per capita expenditure of NT\$97.02.
- (4) To strengthen legislation for cultural asset protection, the Ministry of Culture proposed amendments to the Cultural Heritage Preservation Act and related sub-legislation.



▲ Figure 2-24 Afforestation and nurturing efforts carried out by the Beinan Township Office, Taitung County (left); Lu Dachuan Ancestral Hall, a historic building in Taoyuan City (right)



Between September and December 2024, the Ministry convened 11 expert and agency consultation meetings and four regional forums. Feedback from these sessions will be considered in drafting the amendments to further refine the cultural heritage regulatory framework.

(5) To safeguard biodiversity, the Ministry of Agriculture enhanced management across 87 designated terrestrial natural reserves. These include 22 natural reserves and 10 geoparks designated under the Cultural Heritage Preservation Act, 16 wildlife refuges and 33 major wildlife habitats designated under the Act on Wildlife Conservation, and 6 forest reserves designated under the Forestry Act. Activities included regular patrols, enforcement against poaching and illegal logging, and expanded research, conservation, and restoration of rare flora and fauna. In 2024, NT\$89.553 million was invested in habitat conservation and management, with a per capita expenditure of NT\$3.83.

(6) In 2024, the Ministry of the Interior designated

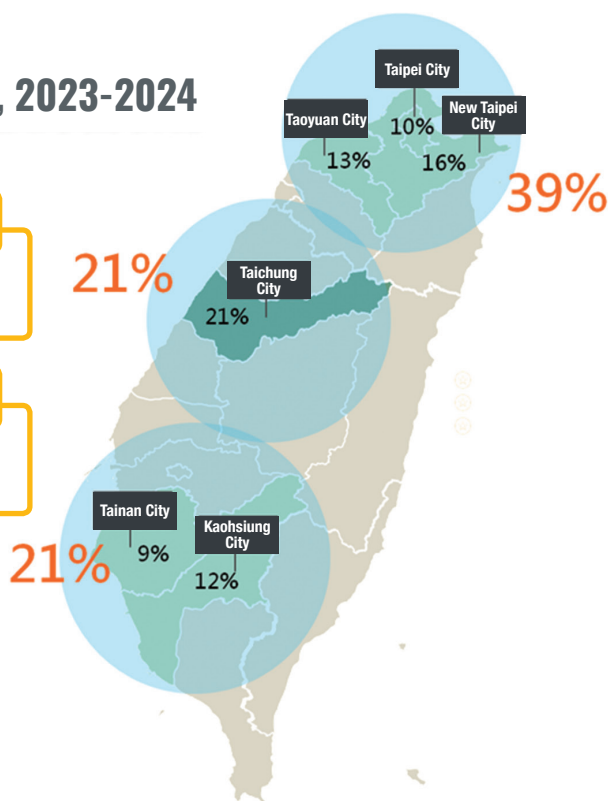
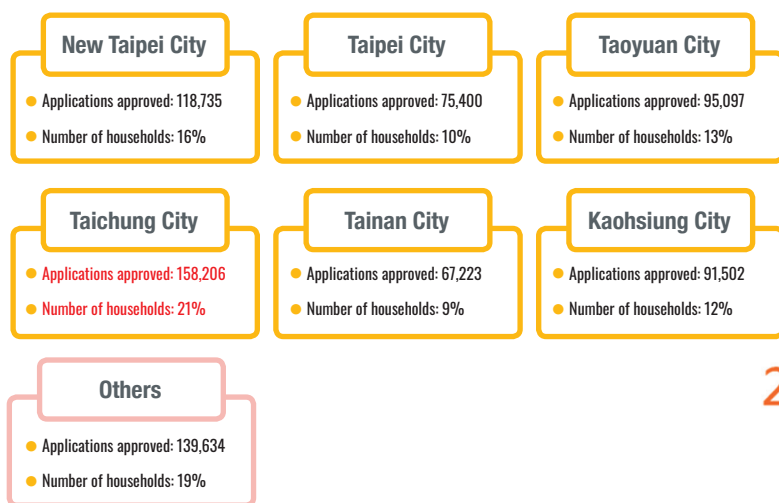
the Wannian Wetlands as a regional wetland of importance. In addition, the Ministry announced and implemented the Sinfong National Important Wetland of Conservation and Utilization Plan, and approved the Dashu Manmade Regional Important Wetland of Conservation and Utilization Plan. In 2024, total investment in nature reserves, wildlife reserves, major wildlife habitats, and natural reserves amounted to NT\$208.58 million, with a per capita expenditure of NT\$89.13.

## 2. Promoting urban renewal and advancing social housing

(1) To accelerate the renewal of aging buildings, the Ministry of the Interior amended and promulgated Article 65 of the Urban Renewal Act on November 13, 2024. The amendment relaxes restrictions for legally constructed buildings that applied for building permits before the implementation of building bulk control, allowing them to apply the original floor area incentives and maximum limits so as to expedite urban renewal. It is estimated to benefit 8,216 legally constructed buildings of six stories or more nationwide, or approximately

### Number of rent subsidy applications approved, 2023-2024

The six municipalities account for about 80%.



▲Figure 2-25 Number of rent subsidy applications approved, 2023-2024



270,000 households. As of the end of 2024, a total of 1,199 urban renewal projects had been approved for implementation. The National Housing and Urban Regeneration Center is currently promoting 21 publicly initiated urban renewal projects, 14 of which have completed the investor recruitment process.

- (2) The Ministry of the Interior launched Operation Directions of 30 Billion Special Program for Expanded Rent Subsidies by the Central Government, allocating an annual budget of NT\$30 billion. With an original target of subsidizing 500,000 households for 2023-2024, all eligible applicants received subsidies upon approval by the Executive Yuan so as to help ease the financial burden of renting. Between 2023 and 2024, over 980,000 applications were submitted, and more than 740,000 were approved, including 215,575 economically or socially disadvantaged households. The rent subsidy program will continue in 2025.

### 3. Enhancing safety in public spaces and increasing green public spaces

- (1) To provide inclusive and accessible recreational environments for public use, the Ministry of the Interior continues to implement the Supervision plan of improving urban park accessibility in biennial phases. Experts in accessibility and persons with disabilities were invited to serve as evaluation committee members, participating in nationwide on-site inspections to assist local governments in auditing and improving barrier-free environments. For the current phase (2024–2025), inspections were scheduled from May to September 2024 across six special municipalities and three cities. The inspections covered entrances, pathways, auxiliary facilities, equipment, and signage. Policy review meetings were held on September 19 and 20, 2024, and evaluation tasks for the six municipalities and three cities were completed for the year.
- (2) The Sexual Harassment Prevention Act was promulgated by the President and came into effect on August 16, 2023. To raise public awareness, the Ministry of Health and Welfare produced informational toolkits to increase public

awareness, educate venue owners on their responsibilities for preventing sexual harassment before incidents occur, and on the corrective and remedial measures required after an incident, along with guidance on ensuring the safety of public or publicly accessible spaces under their management. Thirty regional training sessions were held for venue owners, benefiting over 1,800 participants. Two educational videos were also produced to promote public awareness.

### 4. Enhancing accessibility in transportation services

- (1) To reduce the average age of city buses and enhance accessible transport services, the Ministry of Transportation and Communications (MOTC) continues to subsidize local governments under its Public Road Transport Program to procure accessible buses. In 2024, 74.24% of city bus fleets were accessible buses, reaching its 73% target.
- (2) Platform-to-car alignment in Taiwan Railways: All Taiwan Railway train cars have been fully converted to step-free access. In 2024, platform elevation projects were implemented at 151 stations, bringing the proportion of stations with level boarding to 62.65% of the total 241 stations. This also met the annual target of completing upgrades at 130 stations, reaching 53.9%.
- (3) Taiwan Railways continues to promote the installation of accessible elevators at stations. Due to changes, revisions, and delays in the Railway Safety Improvement Program, a total of 179 stations completed core elevator installation works in 2024, covering approximately 98.14% of the system's passenger volume. Although this fell short of the target of 182 stations and 98.5% coverage, all elevator projects have now been contracted and are being expedited to meet the goal.
- (4) Taiwan High Speed Rail Corporation has added power outlets for electric wheelchairs at accessible seating areas to foster a more inclusive travel environment. All 34 trainsets were equipped with these outlets in 2018, and future trainsets will continue to include this feature.



## SDG 12

### Ensure sustainable consumption and production patterns

#### 1. Promoting green production and encouraging enterprises to engage in resource circulation

(1) The Ministry of Economic Affairs continues to refine the evaluation system for green factories and guide industries toward cleaner production through its green factory review mechanism. In 2024, 16 additional factories were certified as compliant with clean production standards, bringing the cumulative total to 164 certified enterprises. The Ministry also promotes the Green Factory Label by organizing site visits and workshops to enhance industry awareness of clean production practices through hands-on exchanges and trial assessments. Capacity-building efforts were also carried out for the cement industry, including analysis of indicator applicability and support for performance audits in clean production.

(2) On October 23, 2024, the Ministry of Economic Affairs, Financial Supervisory Commission, and Ministry of Environment jointly held the 2024 Enterprise Resource Circulation Excellence Awards. The selection process featured three categories: Source Management, Innovative Services, and Resource Circulation. A total of 32 enterprises received awards this year, including eight recipients of the Gold Award and 24 recipients of the Silver Award. The event also invited award-winning companies to share highlights of their resource circulation initiatives. The ceremony served to recognize and encourage this year's outstanding performers.

#### 2. Reducing food loss and monitoring kitchen waste at the retail-end

The Ministry of Economic Affairs has developed a manufacturing technology for egg yolk lecithin in liquid form by refining raw material purity and



▲Figure 2-26 2024 Enterprise Resource Circulation Excellence Awards ceremony

blending plant-based oils. This innovation supports the development of products with improved fluidity. Through extraction and purification technologies, the lecithin content in raw materials for fluid health products increased from 30% to 40%, reducing food processing loss rates from 35% to 20%, while generating an annual added production value of over NT\$1 million. In addition, pursuant to the regulation that requires businesses to report online the generation, storage, removal, treatment, reuse, export, and import of waste, the Ministry has compiled data on the number of supermarkets and retail hypermarkets whose registered capital at the corporate headquarters exceeded NT\$25 million in 2024. These entities are subject to kitchen waste reporting requirements, and the Ministry has compiled data on their volume of reported kitchen waste.

#### 3. Enhancing industrial waste reuse

(1) On May 1, 2024, the Ministry of Environment amended and promulgated the Management Regulations for Reuse of Common Industrial Waste, prioritizing the use of recycled glass aggregates and expanding the applications of waste glass. The regulations also improved equipment and management standards for using waste plastics as solid recovered fuel and strengthened oversight of the reuse of digestate and bioliquids derived from anaerobic fermentation of kitchen waste and mixed livestock manure. Additional provisions were also introduced for the use of kitchen waste as organic fertilizer.



- (2) On November 6, 2024, the Ministry of Environment announced a draft of the Management Regulations for the Reuse of Common Industrial Waste as Raw Materials for Solid Recovered Fuels, with the finalized regulation announced on January 17, 2025. Drawing on international trends, the new regulations promoted the conversion of combustible waste resources into fuel, consolidated existing provisions, and reinforced source control, manufacturing, usage, and reporting requirements.
- (3) On November 7, 2024, the Ministry of Environment announced proposed amendments to the Management Regulations of Environmental Protection Administration, Executive Yuan for Reuse of Industrial Waste, which aimed to strengthen autonomous management by reuse institutions and enable timely intervention in cases of non-compliance. The management regulations were originally issued by the Environmental Protection Administration, but in line with the organizational restructuring of the Executive Yuan, the Environmental Protection Administration was restructured to become the Ministry of Environment on August 22, 2023. Accordingly, the agency name indicated in the management regulations was updated, and the regulation was renamed the Regulations of Ministry of Environment on Managing Industrial Waste Recycling.
- (4) The rate of industrial waste recycled (including resource recovery) in science parks reached 94%. The Ministry organized a selection process for businesses outstanding in waste reduction and resource circulation, publicly recognizing exemplary performers to facilitate experience-sharing and promote best practices. Technical outreach sessions on reuse technologies were also held. In addition, the Ministry strengthened the review of reuse permit applications. Applications are reviewed in accordance with the Management Regulations for Reuse of Industrial Waste in Science Parks, including document review and on-site inspections by invited experts and scholars. Once permits are issued, routine inspections of reuse institutions are conducted, and experts are invited to provide follow-up

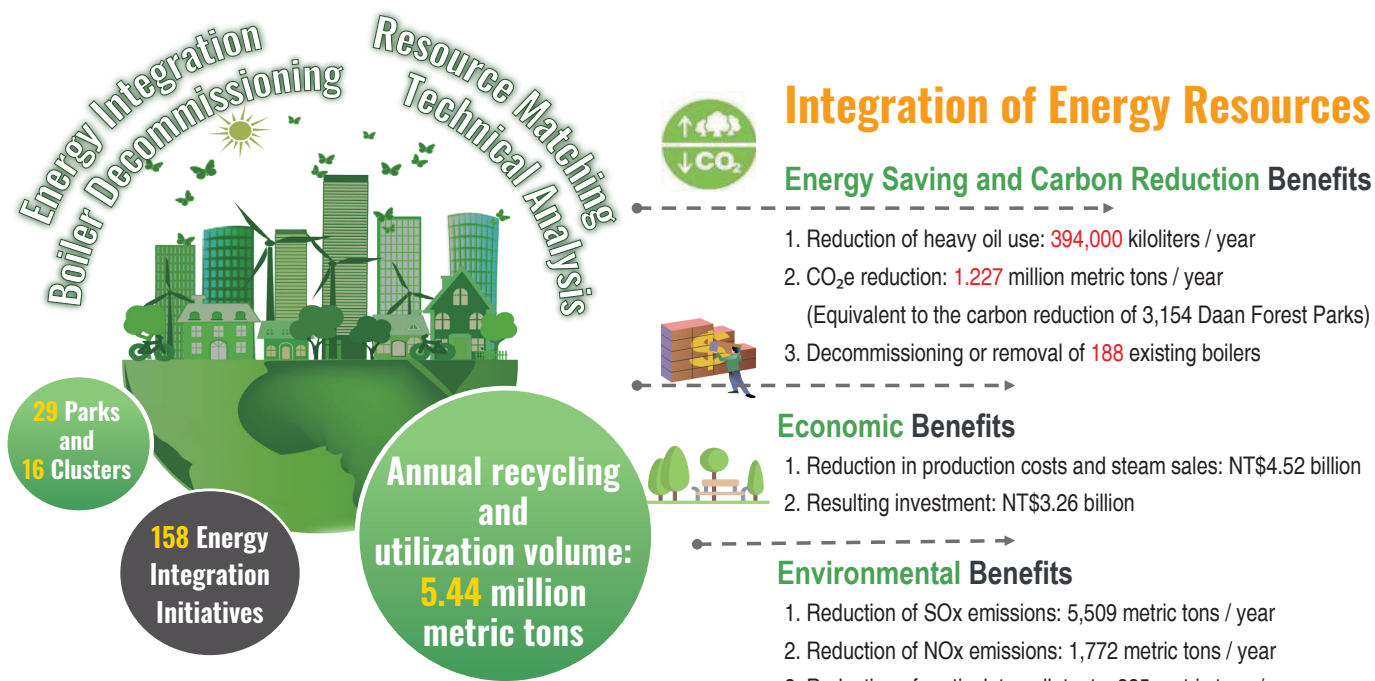
guidance and improvement recommendations to ensure compliance with approved reuse plans.

#### 4. Strengthening resource circulation

- (1) Developing waste recycling technologies: In 2024, a study on the collection and reuse of waste sodium salt (D-2399) was completed. Sodium acetate was recovered from waste sodium acetate at a concentration of 61.1%, which was further refined through three rounds of recrystallization to reach 98.3% purity, meeting reagent-grade standards (valued at NT\$500/kg). The recovered material can be used to produce other compounds or commercial products, thus offering significant economic value. Based on an estimated annual generation of 1,000 metric tons of sodium acetate waste, if all the waste were collected and reused, the potential output value could reach approximately NT\$100 million.
- (2) Circular use of regional energy resources: In line with the program to promote circular economy, the Ministry of Economic Affairs promotes regional integration of energy resources by conducting on-site consultations and linkage workshops. In 2024, six energy projects were integrated, resulting in 95,000 metric tons of circular resource utilization. These efforts led to a reduction of 23,000 metric tons in greenhouse gas emissions, facilitated NT\$130 million in investment, and generated NT\$100 million in economic benefits.
- (3) Innovation in chemical materials: A project was launched to develop low-carbon materials using recycled polyester (rPET). The rPET was modified and blended with optical-grade titanium dioxide to produce polyester composites that can replace virgin polyester. The MOEA subsequently assisted domestic manufacturers in applying this technology to produce reflective panels and lamp bases for mini LED products. The projected carbon reduction benefit is 1,500 metric tons per year.

#### 5. Promoting circular reuse of agricultural surplus resources

- (1) Since 2017, the Ministry of Agriculture has



Note: The 16 industry clusters include: plastic raw materials, integrated circuits, cogeneration, petroleum and coal products, chemical raw materials, flat panels and components, other optoelectronic materials, cement, printed circuit boards, dyeing and finishing, other chemical products, paper pulp, animal feed, semiconductor packaging, other metal products, and non-metallic mineral products.

▲Figure 2-27 Integration of regional energy resources: Promoting regional energy (steam) and resource reuse rate

promoted the collection and reuse of biogas from pig farms, including its use for power generation. By the end of 2024, biogas recovery systems had been implemented across pig farms collectively housing 2.81 million pigs, indicating the scale of the initiative. If the collected biogas were used as a substitute for natural gas, it could save approximately NT\$470 million in annual gas costs and reduce greenhouse gas emissions by 84,000 metric tons.

- (2) In collaboration with the Ministry of Environment, the Ministry of Agriculture has promoted the reclamation of livestock manure and urine for use as agricultural water resources. As of December 2024, a total of 4,219 livestock farms had started reuse of treated manure and urine, and the annual approved volume of treated liquid waste for use in irrigation was 11.9355 million metric tons, covering approximately 5,214 hectares of farmland.
- (3) A total of 24 temporary holding sites for livestock farming waste are currently in operation,

including 2 in Changhua, 2 in Yunlin, 4 in Chiayi, 8 in Tainan, 3 in Penghu, 1 in Kinmen, and 4 in Lienchiang. These sites have collectively processed, transported, and recovered approximately 15,306 metric tons of livestock waste, including approximately 7,540 tons in Changhua, 2,914 tons in Yunlin, 1,530 tons in Chiayi, 1,301 tons in Tainan, 2,011 tons in Penghu, and 10 tons in Lienchiang.

- (4) The Ministry of Agriculture has subsidized the use of approximately 15,710 improved floating devices by fishers in Chiayi County, Tainan City, Penghu County, Kinmen County, and Lienchiang County.

## 6. Enhancing corporate social responsibility (including information disclosure and product carbon footprint labeling)

- (1) In line with national strategic policies and industrial development goals, the Financial Supervisory Commission (FSC) has incentivized domestic banks to support economic



transformation and industrial development. On January 28, 2022, the FSC announced the Program to Encourage Lending by Domestic Banks to Enterprises in Six Core Strategic Industries, which included green electricity and renewable energy. The program ran from April 2022 through December 2024. As of December 2024, the outstanding loan from domestic banks to these six strategic industries reached NT\$7.898 trillion, an increase of NT\$662.7 billion from NT\$7.235 trillion at the end of 2023. Of this, loans to the green electricity and renewable energy sector totaled NT\$3.032 trillion, an increase of NT\$324.1 billion from NT\$2.708 trillion at the end of 2023, surpassing the 2024 target of NT\$2.796 trillion.

- (2) Since 2015, the FSC has required specific industries to prepare Corporate Social Responsibility (CSR) reports, which were renamed Sustainability Reports in 2021. On March 28, 2023, the FSC issued the Sustainable Development Action Plans for TWSE- and TPEX Listed Companies, expanding the scope of mandatory reporting to include both listed and OTC-listed companies and strengthening non-financial information disclosure. Starting in 2025, all listed and OTC-listed companies will be required to prepare sustainability reports. As of the end of 2024, a total of 1,069 listed and OTC-listed companies had submitted sustainability reports for the 2023 fiscal year, including 578 companies under mandatory reporting and 419 under voluntary reporting, achieving a target completion rate of 100.5% against a 2024 target of 575 companies. This marks a significant increase from the initial 202 mandatory reporters in 2015.
- (3) Product carbon footprint labeling: In 2024, the Ministry of Environment announced seven new product categories for carbon footprint labeling and extended the validity of six Product Category Rules (PCRs). Labels were issued to 40 companies for 123 products, and one company received three carbon footprint reduction labels. In all, a total of 126 certificates were issued.

## 7. Strengthening green procurement by public agencies and the private sector

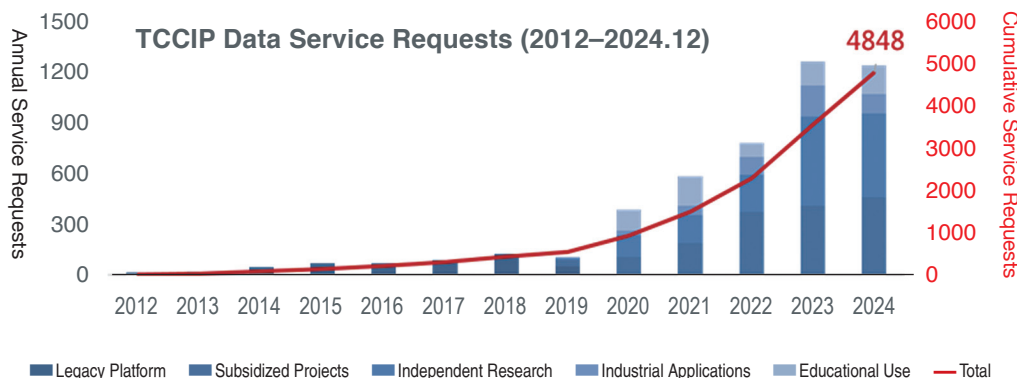
In 2024, public agencies recorded NT\$14.8 billion in green purchases, a 17% increase from NT\$12.6 billion in 2023. Private enterprises and organizations reported NT\$74.3 billion in green procurement for 2024, up 13% from NT\$65.7 billion the previous year. To reinforce private-sector commitment to green procurement, promote the development of green industries, and enhance environmental quality, the Ministry of Environment held a ceremony on August 26, 2024, to honor government agencies, private enterprises, and organizations for their active participation in and support of green procurement and green consumption in 2023.



## Take urgent action to combat climate change and its impacts

### 1. Building capacity for climate change adaptation

- (1) The National Climate Change Adaptation Action Plan (2023-2026) was approved by the Executive Yuan on October 4, 2023. The plan is structured around seven key domains and capacity-building strategies: essential infrastructure, water resources, land use, oceans and coasts, energy supply and industry, agricultural production and biodiversity, and public health. A total of 126 adaptation initiatives were proposed and implemented by 17 government agencies, including the Ministry of Environment. The 2023 progress report on these seven domains and capacity-building outcomes was submitted to the Executive Yuan on December 3, 2024, and formally approved on March 17, 2025. The report has been made publicly available via the Climate Information Disclosure Platform on the Climate Change Administration website.
- (2) In 2024, the Taiwan Climate Change Projection Information and Adaptation Knowledge Platform



▲Figure 2-28 Statistics on Climate Change Data Services Provided by TCCIP

(TCCIP) of the National Science and Technology Council (NSTC) supported a total of 4,848 climate-related research projects (see Figure 2-28), with the website reaching 5.71 million visits and meeting its annual performance targets. That same year, the NSTC released the Climate Change in Taiwan: National Scientific Report 2024 and organized public briefings and workshops, with total participation exceeding 1,000 attendees.

## 2. Advancing periodic regulatory targets for greenhouse gas emissions

(1) On February 15, 2023, Taiwan promulgated amendments to the Climate Change Response Act, followed by the Revisions to the Enforcement Rules of the Climate Change Response Act on December 29. To achieve long-term emission reduction targets, the law mandates that periodic regulatory goals shall be established in stages and implemented on a five-year basis. Central government agencies are required to carry out projections of greenhouse gas emission trends and scenario analyses and propose estimates for electricity emission factors, electricity demand growth, sectoral reduction scenarios, contributions to reduction, and associated costs, along with assessments of potential impacts.

(2) For Phase II (2021–2025), the regulatory goals were approved by the Executive Yuan on September 29, 2021. Based on these goals, six key sectors revised their sectoral GHG Reduction Action Program, setting a goal to

reduce greenhouse gas emissions by 10% in 2025 compared to 2005 levels (the baseline year). In accordance with the Climate Change Response Act, the Ministry of Environment submitted the 2023 implementation status report and sectoral action plan outcomes for Phase II to the Executive Yuan on November 29, 2024.

(3) For Phase III (2026–2030), the regulatory goals were approved by the Executive Yuan on May 6, 2025. These targets aimed to reduce greenhouse gas emissions by  $28 \pm 2\%$  in 2030 compared to 2005 levels. The six key sectors also revised their GHG Reduction Action Program in accordance with Article 11 of the Climate Change Response Act, thereby strengthening Taiwan's sectoral decarbonization roadmap through 2030.

## 3. Promoting climate change education and sustainable campuses

(1) To enhance climate literacy and competencies among primary and secondary school students, the Ministry of Education organized the Climate Change Learning Camp for High School Students and invited the MIT Media Lab team to guide student groups in operating AIoT devices and applying geographic information systems and urban science to climate adaptation initiatives.

(2) The Ministry also held the Climate Change Innovation Competition for college and university students to help students better understand climate change mitigation and adaptation while cultivating their problem-solving abilities and



innovative thinking to develop projects that contribute to climate action.

- (3) To support schools implementing pilot programs to build smart, climate-friendly campuses, the Ministry organized regional midterm exchange meetings to enable schools to conduct self-assessments and carbon inventories. The exchanges enabled schools to better understand how to develop comprehensive blueprints for smart, climate-resilient campuses integrated with enriched curricular content.
- (4) In 2024, the Ministry provided funding to 456 instances of schools participating in localized disaster prevention education, assessing hazard potential and drafting disaster response plans. It also supported inter-agency collaboration between schools and communities to build disaster resilience partnerships, established 248 disaster education hubs, and completed the design of eight experiential learning routes focused on disaster preparedness.

#### 4. Promoting the Low-Carbon Sustainable Homeland Certification

In 2024, participation rates in the program reached 100% for counties and cities, 97% for townships, and 77% for villages and neighborhoods, with a total of 1,575 villages receiving certification. In recent years, the number of Bronze- and Silver-level villages has shown steady growth, indicating that low-carbon awareness and practices have increasingly become part of everyday life for the public.



▲ Figure 2-29 2024 Climate Tech Innovation for Net-Zero Challenge Competition for High School Students



### Conserve and sustainably use the marine ecosystems, and prevent the degradation of marine environment

#### 1. Designating marine protected areas and expanding protected marine zones

- (1) In 2024, the Ministry of the Interior initiated preparatory work for adjusting the scope of coastal zones and completed the first comprehensive review of the coastal zone integrated management plan. This included a timely review of the First-class and Second-class coastal protection zones.
- (2) As of 2024, there were a total of 70 marine protected areas (including wetlands) in Taiwan. The Ministry assisted 10 local governments and 7 private organizations in conducting surveys, as well as carrying out patrol, conservation, and restoration efforts across 26 marine protected areas and 8 ecological hotspots.
- (3) In 2024, the Ocean Affairs Council continued its collaboration with fisheries associations to implement White Dolphin Patrol Fleet Partnership Program. Fishermen and fisheries associations were mobilized to patrol the critical habitats and voluntarily reduce vessel speeds near the habitat waters. A total of 110 dolphin sightings were reported. In addition, five ecology training sessions were held to train fishermen and local residents to become ecological interpreters, fostering diversified livelihood opportunities for fishing communities.
- (4) Between 2023 and 2024, the Ocean Affairs Council provided in-depth guidance for three designated or potential conservation sites: the Chimei Marine Protected Area in Penghu County, the Toucheng Marine Protected Area in Yilan County, and the proposed Tulan Marine Protected Area.

A. At the Chimei Marine Protected Area, four



workshops were organized between 2023 and 2024, reaching consensus on dividing the conservation area into distinct management zones and strengthening regulatory measures. Following review by central and local authorities, the 4.81-hectare subtidal zone became fully closed to fishing, the 1.76-hectare intertidal buffer zone was opened only to traditional harvesting by local residents, and the protected area was expanded by 2.57 hectares. The changes were officially announced and took effect on September 2, 2024.

- B. At the Toucheng Marine Protected Area, a two-year ecological survey was completed. After in-depth stakeholder interviews and workshops, the Toucheng Fisheries Association and the Community Development Association expressed commitment to conservation efforts and began recruiting local residents and volunteers to form a patrol team. Public support was strong for designating a core zone along the coast between Dali Fishing Harbor and Tongpan Cape. Following review by the Yilan County Government, a draft amendment to the conservation area management plan was publicly announced on October 1, 2024.
- C. In the proposed Tulan Marine Protected Area, an ecological survey of the subtidal zone within the planned Tulan Aquatic Species Conservation Zone was completed, along with four rounds of citizen science investigations led by the local indigenous community. More than ten community meetings and educational outreach events were held. A consensus was reached among Tulan residents, the Taitung District Fisheries Association, and the Taitung County Government, resulting in a draft management plan for the Tulan Aquatic Species Conservation Zone.

## 2. Strengthening marine environmental monitoring and waste removal

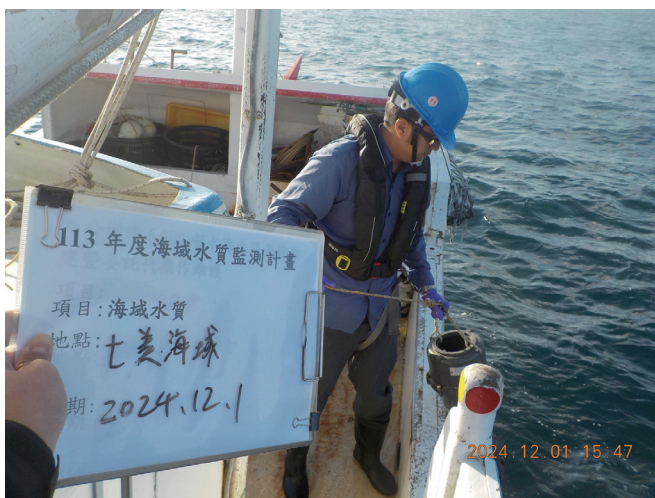
- (1) Monitoring of coastal drifting plastics: Based on data from local environmental protection agencies participating in the International

Coastal Cleanup (ICC), the total number and types of marine debris collected along Taiwan's coastline decreased from 14,870 items in 2019 to 6,153 items in 2024, marking an overall reduction of approximately 60%. Among these, plastic waste dropped from 8,088 items to 3,918 items, a decline of about 51.6%, indicating tangible progress in coastal cleanliness and maintenance.

- (2) Removal of floating and seabed marine debris: By the end of 2024, the Ocean Affairs Council had mobilized a total of 6,233 environmental vessels and 5,845 underwater cleanup divers, and established 38 marine cleanup outposts. The total volume of marine debris removed in 2024 reached 3,627.34 metric tons, including 252.44 tons cleared by local governments with subsidies from the central government (comprising 237.62 tons of floating debris and 14.82 tons of seabed debris); 75.49 tons of seabed waste removed by contracted maritime companies; 2,958.87 tons temporarily stored in Class II fishing port holding zones; 315 tons recovered for reuse; 2.94 tons removed by cleanup outposts; and 22.6 tons cleared through the Marine Debris Clearance Network (MDCN).
- (3) Nationwide marine water quality monitoring: The Ocean Affairs Council announced amendments to the Marine Environment Classification and Marine Environment Quality Standards and the Regulations on Marine Environment Monitoring and Monitoring Station Installation. In 2024, water



▲Figure 2-30 Cleanup divers remove entangled ghost nets



▲Figure 2-31 Marine water quality sampling, 2024

samples from coastal monitoring sites were tested for ammonia nitrogen to assess nutrient pollution; 98.4% met the national water quality standards. To assess the level of marine pollution, water samples were tested for dissolved oxygen, heavy metals (cadmium, lead, mercury, copper, and zinc), and ammonia nitrogen, and 99.9% of all samples collected met the national marine water quality standards. To assess ocean acidification, pH levels were monitored, and 99.5% of the samples met the national water quality standards for pH, with recorded values ranging from 7.8 to 8.4, indicating a 100% compliance rate.

### 3. Implementing the Marine Pollution Control Act and the Marine Conservation Act

- (1) On December 29, 2021, the Ocean Affairs Council submitted the draft Marine Conservation Act to the Executive Yuan for review. The draft was approved by the Executive Yuan on February 15, 2024, forwarded to the Legislative Yuan for deliberation, and passed the third reading on July 12, 2024. The Act was formally enacted and promulgated by the President on July 31, 2024.
- (2) Amendments to the Marine Pollution Control Act were promulgated on May 31, 2023. In 2024, a comprehensive review was conducted, resulting in the amendment and enactment of 36 related sub-laws. Starting February 17, 2024, a marine pollution control fee shall be levied. On July 12, 2024, the Executive Yuan approved the

establishment of the Marine Pollution Control Fund, with a dedicated fund management committee expected to be created in 2025.

### 4. Sustainable use of fishery resources

- (1) On February 7, 2024, the Ministry of Agriculture announced the Regulations for the Management of Catching Dolphinfish, which took effect on September 1, 2024. The regulation prohibits the capture and possession of dolphinfish (*Coryphaena hippurus*) under 50 cm in length, allowing younger fish to grow naturally in the ocean and supporting the sustainable use of fishery resources.
- (2) To apply ecosystem-based management principles to resource governance, the Ministry of Agriculture in 2024 conducted ecological surveys across four marine areas in Penghu County, namely, Yueli Bay, Chuan Fan Islet, Jin Gua Tsai Skerry, and Wangan, which were identified as potential protected areas for aquatic



▲Figure 2-32 Implementing Regulations for the Management of Catching Dolphinfish



species reproduction and conservation. The surveys revealed thriving stony coral substrates and abundant invertebrate and fish populations, particularly around Jin Gua Tsai Skerry, indicating strong potential for aquatic species reproduction and conservation. The findings were provided to the Penghu County Government to support planning aimed at designating these sites as critical marine breeding habitats.



## Conserve and sustainably use terrestrial ecosystems to ensure the persistence of biodiversity and prevent land degradation

### 1. Enhancing biodiversity conservation, management, and monitoring

(1) The Ministry of Agriculture has conducted long-term ecological monitoring of distinct environmental zones at the Taipei Botanical Garden, Fushan Research Center, Lienhuachih Research Center, and Lioukuei Research Center. In 2024, the surveys yielded over 120,000 audio and visual records, adding to the existing data for biodiversity monitoring and offering new perspectives for ecological research. These long-term observations of biophenological dynamics help assess ecosystem vulnerability and shape the development of appropriate management strategies, thereby advancing biodiversity conservation and monitoring efforts.

(2) The Ministry of the Interior continues to strengthen biodiversity conservation, management, and monitoring through initiatives such as: Taiwan Black Bear Conservation and Monitoring Program at Yushan National Park; study on the impact of climate change on vegetation distribution and adaptive strategies at Yangmingshan National Park; study on invasive plant species and its interference with the pollen



▲Figure 2-33 A *Bombus formosellus* moves back and forth within an *Cirsium arisanense*, feeding on nectar while becoming dusted with pollen

of native flora in the Hehuanshan Area at Taroko National Park; assessment of stream ecosystems in the Wuling Region at Shei-Pa National Park; research on banding and migration of small migratory birds at the Kinmen National Park; evaluation and application of ecosystem services in the Qigu Salt Field Wetlands at the Taijiang National Park; monitoring of Formosan macaque populations and research on their disease and health conditions at the Shoushan National Nature Park.

### 2. Completing threat status assessments for Taiwan's terrestrial mammals, amphibians, terrestrial reptiles, freshwater fish, and birds (Red List)

Taiwan has completed its second national assessment of native species' threat status in accordance with the criteria set by the International Union for Conservation of Nature (IUCN). The assessment covered 86 native terrestrial mammal species, 43 native amphibian species, 104 native terrestrial reptile species, 401 native freshwater fish species, and 686 native bird species.

(1) A total of 79 native terrestrial mammal species were assessed for their threat status. The results were as follows: Regionally Extinct: 1 species; Critically Endangered: 2 species; Endangered: 3 species; Vulnerable: 6 species; Near Threatened: 9 species; Least Concern: 57 species; and Data Deficient: 1 species. Compared to the 2017 assessment, 1 species showed increased



▲ Figure 2-34 The Red List of the Birds of Taiwan, 2024

threat status, while 3 species were downlisted. Nationally, 13.9% of assessed species are Threatened, and 11.4% are Near Threatened.

- (2) A total of 37 amphibian species were assessed. The results were as follows: Critically Endangered: 2 species; Endangered: 6 species; Vulnerable: 3 species; Near Threatened: 6 species; and Least Concern: 20 species. Compared to 2017, 2 species were uplisted, and 1 species was downlisted. Threatened species account for 29.7% of those assessed.
- (3) A total of 90 terrestrial reptile species were assessed. The results were as follows: Critically Endangered: 4 species; Endangered: 3 species; Vulnerable: 1 species; Near Threatened: 9 species; Least Concern: 67 species; and Data Deficient: 6 species. Nationally, 8.9% of species are Threatened, and 9% are Near Threatened.
- (4) A total of 128 freshwater fish species were assessed. The results were as follows: Extinct: 1 species; Regionally Extinct: 3 species; Critically Endangered: 2 species; Endangered: 19 species;

Vulnerable: 11 species; Near Threatened: 19 species; Least Concern: 54 species; and Data Deficient: 19 species. Threatened species account for 25%, and Near Threatened species for 14.8% of those assessed.

- (5) A total of 318 bird species or subspecies were assessed. The results were as follows: Critically Endangered: 6; Endangered: 12; Vulnerable: 29; Near Threatened: 41; Least Concern: 229; and Data Deficient: 1. Threatened and near threatened taxa account for 14.7% and 12.8%, respectively.

### 3. Continuing to collect threatened plant germplasm to reduce extinction risk

- (1) Since 2019, the Ministry of Agriculture has implemented the National Botanical Gardens - the project for future green, aimed at collecting germplasm from rare wild plant species. These specimens are cultivated at botanical gardens and conservation bases within university experimental forests to mitigate the extinction risk faced by endangered plants. As of 2024, an additional 33 endangered species have been collected, bringing the total to 680 rare and endangered species preserved, with a conservation coverage rate of 68.76%.
- (2) After propagation at conservation bases, preserved endangered plants are reintroduced through collaborative efforts with schools, local governments, and community groups near their original habitats. In 2024, planting and reintroduction activities were carried out in Lanyu (Taitung), Dayuan (Taoyuan), Tongxiao (Miaoli), Gongliao (New Taipei), Yuanshan (Yilan), Meinong (Kaohsiung), and Chishang (Taitung). These efforts have led to the reintroduction and restoration of over 50 endangered plant species, helping to reduce extinction risk.

### 4. Implementing ecological conservation and monitoring at river basins

- (1) To advance eco-friendly engineering practices and fulfill the goals of sustainable ecological development, the Ministry of Agriculture incorporated ecological design mechanisms into



the weir improvement project at the Shuangliu National Forest Recreation Area. The project extended the lifespan of the weir structure through reinforcement while lowering the weir and constructing fishways to reduce barriers to fish migration and allow freer movement of aquatic species along the river's length. During the design phase, sediment transport simulations were conducted to determine the minimum water level required for migratory fish to ascend during the dry season. Additional conservation measures included installing wildlife passages and climbing nets. After the project was completed, ecological monitoring confirmed that indicator species, such as the giant mottled eel (*Anguilla marmorata*), Taiwan torrent carp (*Acrossocheilus paradoxus*), and Henchuen rhino-goby (*Rhinogobius henchuenensis*), were able to migrate upstream and utilize the restored habitat, demonstrating the dual benefits of structural enhancement and ecological conservation.

- (2) The Ministry of Economic Affairs and the Ministry of Agriculture jointly launched The Project for improvement of the River Status Investigation Program and Conservation Measures. Beginning in 2022, the initiative follows a three-year cycle and involves ecological surveys at 250 fixed sampling stations across centrally managed river basins. With increased survey frequency and enhanced data accuracy, the initiative enabled better tracking of aquatic ecosystem trends and identification of priority conservation zones. As of 2024, the first full round of ecological surveys at all 250 stations has been completed, fulfilling the operational targets for the second round of centrally managed river basin assessments.
- (3) Under the Comprehensive Improvement and Adaptation Plan for the Watersheds under Central Government Jurisdiction, a total of 63 ecological review projects were to be carried out, and all were completed in accordance with regulations, achieving a 100% compliance rate. In addition, in 2024, subsidies were provided to local governments to support ecological review work for 2023–2024.

## 5. Controlling invasive alien species and combating illegal activities involving wildlife

- (1) Nationwide efforts, including local government subsidies, led to the removal of invasive plant species across Taiwan. These included *Mikania micrantha* removed from 1,057.169 hectares; Santa Maria feverfew (*Parthenium hysterophorus*), 275.444 hectares; horse tamarind (*Leucaena leucocephala*), 716.972 hectares; giant sensitive tree (*Mimosa pigra*), 17.3 hectares; and smooth cordgrass (*Sporobolus alterniflorus*), 12.3 hectares. In addition, 412.942 metric tons of *Mikania micrantha* were purchased, and 156 sessions of training and outreach were conducted on invasive species identification and control.
- (2) In 2024, the Forestry and Nature Conservation Agency of the Ministry of Agriculture removed a total of 41 adult African sacred ibis (*Threskiornis aethiopicus*), while local governments removed 82,595 green iguanas (*Iguana iguana*). In addition, targeted control and continuous monitoring of fire ants were conducted at outbreak sites in the Northern Coast and Miaoli County. A total of 100 eradication cases covering 702 hectares were completed, with no further detections, allowing for the lifting of outbreak control measures.
- (3) The Ministry of Agriculture conducted pest risk assessments for first-time imports of plant seeds and seedlings in accordance with the Plant Protection and Quarantine Act, international standards, public import application data, and scientific literature and evidence. In 2024, 35 assessments were completed. Of these, four import applications were deferred due to invasive plant risks, and 30 cases met the expected import approval criteria.
- (4) In 2024, the Ministry of Finance intercepted 5,875 illegally imported live animals. The Ocean Affairs Council seized 156 smuggled turtles, 27 banded bullfrogs (*Kaloula pulchra*), 9 squirrels, 12 marmots, 27 redtail catfish, and 1,047 eggs of protected parrot species, totaling 1,278 live animals. The Ministry of Agriculture processed applications for the import and export of



44,304,239 live animals. Efforts to strengthen enforcement and streamline legal import/export procedures resulted in a 0.016% ratio of poached or illegally traded wildlife relative to legal wildlife trade.

## 6. Implementing sustainable forest management

- (1) In recent years, the Ministry of Agriculture has continued to use technology to monitor mountain trails frequently used by illegal loggers, thereby improving the precision of evidence collection and increasing conviction rates in cases involving the theft of primary and secondary forest products. Inter-agency communication and collaboration have also been enhanced, with government agencies sharing intelligence on cases, criminal methods, and enforcement techniques so as to build consensus among prosecutors, judicial police, and relevant administrative authorities.
- (2) The Ministry has promoted public participation in forest patrols by mobilizing local mountain communities, forest survey volunteers, and university mountaineering clubs to jointly safeguard forest resources and prevent illegal logging. In addition, efforts to revitalize mountain village economies aim to reduce the risk of economically vulnerable residents in high-risk areas being drawn into forest product theft due to financial pressure.
- (3) The number of thefts of forest products has declined significantly in recent years, from 191 cases in 2020, 123 in 2021, 102 in 2022, and 111 in 2023, to just 57 in 2024. The Ministry will continue to refine measures to prevent illegal logging to reduce forest resource degradation and achieve the goal of sustainable forest management.



## Promote peaceful and inclusive societies, provide access to justice for all and build effective, accountable inclusive institutions

### 1. Expanding crackdowns on organized crime and investigation of corruption

- (1) Nationwide coordinated crackdowns on organized crime: In 2024, the Taiwan High Prosecutors Office and local district prosecutor offices launched six waves of coordinated crackdowns on organized crime nationwide. A total of 520 organized crime groups were targeted, resulting in the arrest of 3,233 suspects and the shutdown of 15,514 gang-affiliated business operations and activity sites. On September 2, Premier Cho Jung-tai personally visited the Criminal Investigation Bureau under the National Police Agency to commend frontline officers and reaffirm the government's unwavering commitment to combating all forms of criminal activity. He emphasized that the authority of the administration must not be challenged.
- (2) Expanding investigation of corruption cases: From January to December 2024, local prosecutor offices indicted 450 corruption-related cases. As of January 2025, among those indicted in 2024, courts had rendered 75 guilty verdicts and two acquittals, yielding a conviction rate of 97.4%. From July 2009 to December 2024, the total conviction rate for corruption cases after indictment was 78.1%.

### 2. Enhancing anti-money laundering measures and combating illicit financial flows

- (1) To reinforce anti-money laundering efforts, Taiwan has completed a full amendment of the Money Laundering Control Act-Key amendments include: stipulating a clear definition of money laundering; expanding predicate offenses to



include profit-driven activities and the sale of contraband; imposing criminal liability on virtual asset service providers and third-party payment operators; raising the maximum penalties for Designated Non-Financial Businesses and Professions (DNFBP), with provisions for repeated violations; introducing disclosure requirements for non-trustee trust service providers; establishing a legal basis for the Financial Intelligence Unit (FIU) to analyze and disseminate intelligence; differentiating sentencing based on the amount laundered and increasing corporate liability; adding provisions for sentence reduction for voluntary surrender and cooperation with investigations; expanding the scope of asset forfeiture; and introducing controlled delivery procedures for investigating money laundering crimes.

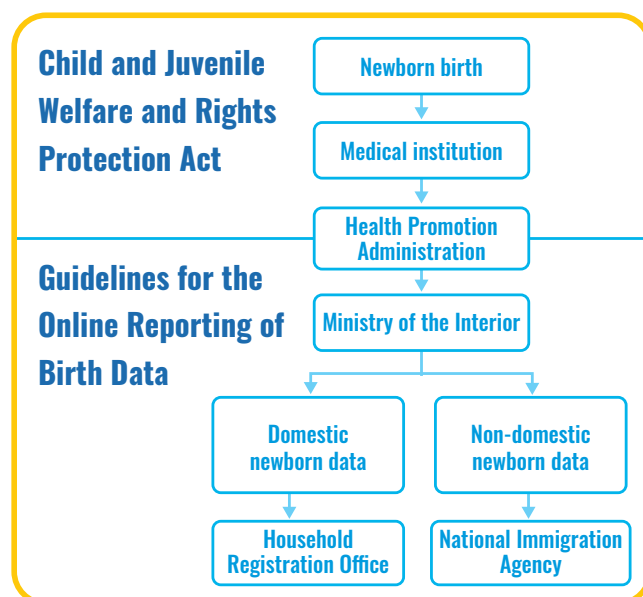
- (2) Taiwan actively participates in activities organized by the Asia/Pacific Group on Money Laundering (APG) to gain insight into evaluation criteria and the preparatory processes and deficiencies of previously assessed jurisdictions. These efforts support Taiwan’s own evaluation readiness and enhance its international competitiveness in anti-money laundering performance.

### 3. Improving the social safety net and safeguarding children and youth

- (1) In 2024, police agencies conducted welfare checks on children of individuals apprehended or wanted for drug offenses, in accordance with Article 54-1 of the Protection of Children and Youths Welfare and Rights Act. A total of 4,490 children were visited. Of these, 227 were referred to social welfare authorities for assessment due to inadequate care, and 800 cases involving vulnerable families were referred for support services.
- (2) To improve the quality of intervention services and improve both the depth of services provided by protective social workers and the appropriateness of case closure decisions, the Ministry of Health and Welfare has developed closure indicators for adult and child protection systems. It also introduced a Structured Decision-Making (SDM) Model for risk assessment

and reassessment to assist social workers in determining whether to close a case or continue services. According to ministry statistics, the rate of re-reporting cases within one year of closure in 2024 was 5.33%.

- (3) Interagency reporting of newborn birth data to ensure universal birth registration: Under the Household Registration Act, all nationals born in Taiwan under the age of 12 must be registered within 60 days. If registration is not completed within the said timeframe, the registration shall be filed directly by the household registration office if the parties concerned still fail to apply for registration after notification by the office. To ensure universal birth registration, the Ministry of the Interior established guidelines for the online reporting of birth data. Through this system, newborn birth notifications transmitted by the Ministry of Health and Welfare are received electronically and forwarded to local household registration offices for verification and recordkeeping. In 2024, a total of 152,034 birth notifications were received and transmitted to registration offices, all of which were processed in accordance with the Household Registration Act and the aforementioned guidelines, resulting in a 100% birth registration rate.



▲ Figure 2-35 Flowchart of newborn birth notification and registration process

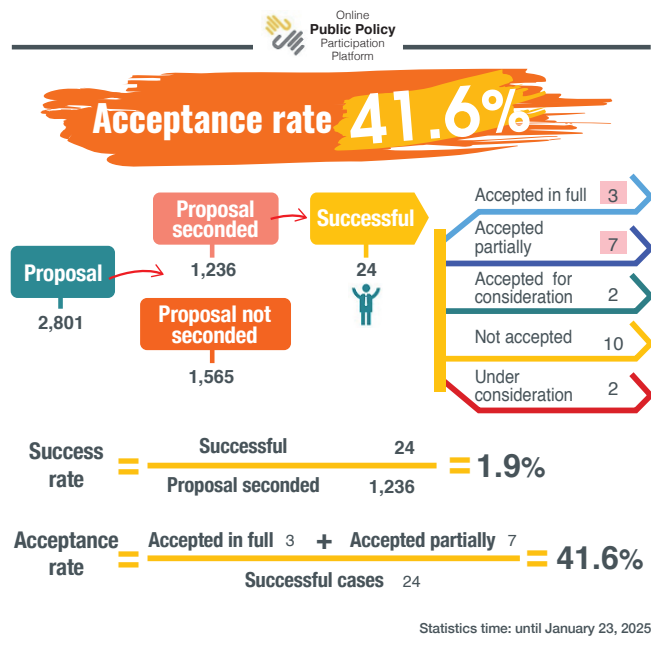


#### 4. Implementing mechanisms for civic participation

(1) As of the end of December 2024, the Government Open Data Platform had released over 50,000 datasets, with total page views exceeding 100 million and downloads surpassing 21 million. Around 90% of these datasets were machine-readable, structured, and formatted for open access, earning them the Gold Label designation for high-quality data. On March 10, 2025, the Government Open Data Awards Ceremony was held to showcase the achievements of public agencies in promoting open data and improving data quality.

(2) The Government Open Data Platform continues to release datasets such as Basic Information on Charging Stations, Real-Time Status of Charging Connectors, and Data on Highway Service Area Charging Stations. These include locations of the charging stations, the number of charging connectors, and the status of charging units. By using third-party value-added applications, the public can access up-to-date information on charging stations nationwide, significantly improving convenience for electric vehicle users. In addition, the Ministry of Environment continues to update the Air Quality Index (AQI) dataset on an hourly basis to support air quality protection and pollution prevention efforts. These open data initiatives enhance public services, foster community engagement, and promote value-added use of government datasets.

(3) Open and transparent participation: Throughout 2024, the National Development Council continued to operate the Public Policy Online Participation Platform, providing a permanent channel for public involvement in policy affairs and optimizing platform functionality. Public satisfaction reached 89.6%. The Submit an Idea feature received 2,801 proposals from the public, of which 1,236 passed initial review and advanced to the endorsement phase, where the public could formally endorse and second the proposals. A total of 24 proposals reached the threshold of 5,000 endorsements and were formally registered as cases on the platform, with 10 partially adopted by government agencies, yielding an acceptance rate of 41.6%.



▲ Figure 2-36 Proposals on the Public Policy Online Participation Platform in 2024



### Establish diversified partnerships and work together to advance the vision of sustainability

#### 1. Transferring environmentally friendly technologies, dissemination, and outreach programs

(1) In 2024, the Ministry of Foreign Affairs commissioned the International Cooperation and Development Fund (TaiwanICDF) to implement a series of programs related to the transfer, dissemination, and outreach of environmentally friendly technologies. The total value of grant-based projects amounted to approximately NT\$632.026 million.

(2) With the Flood Warning Capacity Improvement for the Belize River Basin Project, TaiwanICDF assisted Belize in establishing hydrological monitoring stations to collect data across river basins in Belize. The project also deployed



an early warning system for real-time water level monitoring, and updated geospatial data, including hydrology, disaster prevention infrastructure, topography, satellite imagery, roads, and utility pipelines. The goal was to strengthen governmental disaster management capabilities.

- (3) Phase II of the St. Kitts and Nevis Solid Waste Management and Recycling Project supported the development of an initial waste recycling model and mechanism while enhancing the country's downstream waste treatment capacity. The project aimed to increase resource recovery and reduce waste generation, in line with global trends in green environmental practices and net-zero emissions, and contribute to the achievement of sustainable development goals.
- (4) In 2024, TaiwanICDF collaborated with Türkiye on a project to restore power distribution after an earthquake. The initiative expanded the coverage of modernized distribution networks to include energy services for container cities in the disaster zone. By using smart meters and smart grid systems, the project improved energy efficiency and reduced distribution losses, cutting approximately 82,000 metric tons of CO<sub>2</sub> emissions annually. The total value of this cost-sharing project was US\$128.46 million.

## 2. Enhancing medical cooperation with diplomatic allies

- (1) In 2024, a total of 93 scholarship recipients pursued degree programs in public health and medical fields in Taiwan, accounting for 21% of all awardees.
- (2) The TaiwanICDF implemented a range of health-related cooperation projects, including: Phase III of the Health Information Management Efficiency Enhancement Project in Paraguay; Project for Strengthening Metabolic Chronic Disease Prevention and Control Systems in the Kingdom of Eswatini; Public Health Emergency Response System Enhancement Project in Somaliland; Project for Strengthening Metabolic Chronic Disease Prevention and Control Systems in Belize; Public Health Emergency Response System Enhancement Project in St. Vincent and the Grenadines; Health Information Management Efficiency Enhancement Project in Somaliland; Project for the Promotion of Medical Technology for Improvement of Maternal-Neonatal Health in Guatemala (Phase II); Capacity Building Project for the Prevention and Control of Metabolic Chronic Diseases in St. Lucia; and Strengthening Digital Healthcare for Community Non-Communicable Diseases (NCDs) and COVID-19 in Fiji. Collectively, these initiatives provided



▲ Figure 2-37 With the Project for Flood Warning Capacity Improvement for the Belize River Basin, TaiwanICDF dispatched experts to guide local technicians in repairing hydrological monitoring station equipment



▲ Figure 2-38 Minister of Foreign Affairs Lin Chia-lung (second from right) and Saint Lucia Prime Minister Philip J. Pierre of Saint Lucia (second from left) attend the unveiling ceremony of the I-Screen project



capacity building for 9,591 personnel. In addition, under the framework of the Diplomatic Allies Prosperity Project, smart healthcare was designated as a flagship initiative. In 2024, over half of the implemented projects incorporated smart healthcare components.

### 3. Supporting water supply and sanitation improvements in developing countries

- (1) In 2024, the TaiwanICDF carried out four water and sanitation improvement projects in developing countries. Among them, in partnership with the Terre des hommes Foundation (TdH), TaiwanICDF assisted Kenya in responding to extreme climate events (such as droughts and floods) by improving access to basic water, sanitation, and hygiene (WASH) services at ten healthcare facilities in Garissa County. WASH facilities procurement, capacity building for government and facility-level WASH management, and the development of SOPs for medical waste disposal and environmental hygiene were completed in the healthcare facilities.
- (2) In response to the 2023 earthquake in Türkiye, TaiwanICDF collaborated with the Turkish NGO ASAM (Association for Social Development and Aid Mobilization) to improve access to WASH and health services for affected households in the container cities of Hilalkent and Emlak Konut in Hatay Province. In Hilalkent, the project completed assessments and repairs of WASH infrastructure, conducted group counseling sessions for pregnant women and neonatal caregivers, and organized public health education activities on infectious disease prevention. In addition, TaiwanICDF supported projects in developing countries aimed at improving access to emerging water sources and enhancing wastewater treatment facilities.

### 4. Implementing trade-related technical assistance programs

- (1) In 2024, the TaiwanICDF implemented grant-based programs totaling NT\$153.572 million.
- (2) Under the Capacity Building Project for Microfinance Ecosystem Focusing on Grassroots

Women in Eswatini, the Kuyenteka Savings and Credit Cooperative was established to support over 400 female members in launching new businesses through entrepreneurship guidance and microloans. The initiative increased income for women-led microenterprises in rural areas and contributed to sustainable development.

- (3) The Project to Strengthen Capacity to Support Development of MSMEs (Phase II) in Paraguay aimed to enhance the Paraguayan government's capacity to support micro, small, and medium-sized enterprises (MSMEs), effectively promoting MSME development. The project also continued to integrate public, private, and academic resources to enhance key sectors such as textiles and dairy, driving industrial transformation and improving competitiveness.

### 5. Ongoing promotion of international technical cooperation

- (1) By the end of 2024, the TaiwanICDF was implementing 88 international technical cooperation projects. As Taiwan's designated foreign aid agency, the TaiwanICDF aligned its efforts with national foreign policy by focusing on the Diplomatic Allies Prosperity Project in upgrading and transforming international development cooperation. This marked a shift from the traditional focus on consolidating diplomatic alliances to a broader emphasis on forging prosperity partnerships, integrating Taiwan's technological and human resources to deliver holistic solutions that address critical development needs in diplomatic allies.
- (2) Following the Ministry of Foreign Affairs' comprehensive diplomacy strategy, the TaiwanICDF has internalized the principles of values-based diplomacy, actively using a range of development tools to highlight Taiwan's core commitments to democracy, human rights, gender equality, and sustainable development. Through international cooperation in different fields, Taiwan has deepened its Alliance Diplomacy strategy and regional partnerships with diplomatic allies and like-minded nations, thereby enhancing its visibility and contributions in global development cooperation.



- (3) The TaiwanICDF projects also link to Taiwan's Five Trusted Industry Sectors and Eight Flagship Sectors, facilitating the export of Taiwan's development experience. These efforts assist the private sector in expanding overseas business opportunities and contribute to the realization of Taiwan's "economic diplomacy."

## SDG 18

### Build a nuclear-free homeland

#### 1. Decommissioning nuclear power plants in accordance with law

- (1) In April 2024, the G1T2/G2T3 towers at Nuclear Power Plant No. 1 were dismantled, followed by the removal of 69kV switchyard equipment in November. On December 31, the Unit 2 main generator was dismantled, and the components were transported to the off-site measurement center for radiological assessment. During the year, the total weight of components verified to meet off-site clearance standards was approximately 423 metric tons. In addition, 20 fuel assemblies from the reactor core were removed from the outdoor dry storage facility at Plant No. 1, and thermal testing on two dry storage casks was conducted. Once the operating license is obtained, nuclear fuel can be gradually removed from the reactor, enabling continued progress in decommissioning and dismantlement.
- (2) Regarding the decommissioning plan for Nuclear Power Plant No. 2, the supplementary explanation of the assessment of historical data related to the plant site was approved for recordkeeping by the Nuclear Safety Commission on June 12, 2024. The radiological characterization survey plan was completed on July 12 and submitted for review.
- (3) For the decommissioning of Nuclear Power Plant No. 3, the Ministry of Economic Affairs conducted a public hearing and an on-site inspection for



▲Figure 2-39 Restoration of the pier's concrete deck completed in July 2024

environmental impact assessment on August 20, 2024.

#### 2. Continued efforts to identify a site for the final disposal facility for low-level radioactive waste and to expedite the relocation of the Lanyu storage site

In July 2023, Typhoon Doksuri caused partial damage to the concrete deck of Longmen Pier at the Lanyu storage facility. In accordance with the repair plan approved for record by the Nuclear Safety Commission on October 20, 2023, Taipower completed restoration of the pier's concrete deck in July 2024.

#### 3. Promoting the legislative framework for the Final Disposal Facility for High-Level Radioactive Waste to support nuclear plant decommissioning

- (1) On May 10, 2024, the Ministry of Economic Affairs announced the Guidelines for Establishing the Ministry's Radioactive Waste Disposal Office, and the office was established with assistance from Taipower. To date, legislative experiences and regulatory frameworks from Germany, Japan, Republic of Korea, Finland, and Sweden have been reviewed to guide Taiwan's approach to high-level waste disposal.
- (2) On September 27, 2024, Taipower dispatched personnel to Finland to observe the trial operation of the world's first high-level radioactive waste final disposal facility. The visit focused on operational details, facility design, and planning considerations for both construction



▲Figure 2-40 Facilities for the final disposal of high-level radioactive waste in Finland

and operational phases, as well as potential challenges. Insights gained from the visit will help guide the next stages of Taiwan's high-level waste disposal planning.

#### 4. Enhancing safety and protection of nuclear facilities

In 2024, all nuclear power plants conducted emergency preparedness exercises with real personnel and on-site scenarios. These drills included in-plant rescue and response operations to ensure redundancy and diversity in water and power supply systems. To simulate realistic disaster conditions, a non-compressed timeline was

adopted for the first time in a single-subject drill. This approach exposed procedural issues often overlooked in compressed drills, such as delays, handovers, and waiting periods. The exercises also incorporated scenarios based on Japan's Noto Peninsula earthquake and international military contingencies. The plants rehearsed transition protocols between peacetime and emergency operations in the event of a nuclear incident compounded by military threats. Key components included spent fuel pool replenishment strategies, road obstacle clearance, contingency plans for communication disruptions at radiation monitoring stations, and radiological injury response. For the individual power plants, Power Plant No. 1 conducted Nuclear Safety Exercise No. 30 on September 10; Power Plant No. 2 conducted an annual in-plant exercise on November 7; and Plant No. 3 conducted an annual in-plant exercise from June 6 to 7.



▲Figure 2-41 Nuclear safety exercise no. 30 at Nuclear Plant No. 1 (September 10, 2024)

#### 5. Promoting public dialogue on nuclear waste management and strengthening education campaigns for a nuclear-free homeland

(1) The Social Communication Plan for Nuclear Waste Site Selection was completed in August 2024. The plan addressed three key areas: issue framing, information transparency, and public trust, and used issue-based dialogue to help



build a structured foundation for communication. This approach aims to gradually establish trust and build a mechanism for nuclear waste policy engagement.

(2) In 2024, the Work Plan for Public Dialogue to Identify a Site for the Final Disposal Facility for Low-Level Radioactive Waste was implemented. Outreach materials included print advertisements, brochures, explainer kits, short videos, and triangular desk calendars. A total of 417 visits and briefings were held, supported by digital outreach through Taipower's Nuclear Backend Operations Portal and the Facebook page Give Nuclear Waste a Home, reaching an estimated audience of 4.2 million.

(3) Also in 2024, the Work Plan for Public Dialogue on the Contingency Proposal for Interim Storage of Low-Level Radioactive Waste was launched. Outreach materials included brochures, explainer kits, and short videos, alongside school-based activities such as the Nuclear Waste Study Camp. In addition, digital outreach through Taipower's Nuclear Backend Operations Portal and the Facebook page Give Nuclear Waste a Home reached an estimated 510,000 people.



## Climate Change and Net-Zero Emissions Transition Task Force

### 1. Coordinating ministries to propose Taiwan's new decarbonization pathway and action plan

To implement President Lai's National Project of Hope and its five key strategies for green growth and net-zero transition by 2050, and to align with international commitments in setting Taiwan's Nationally Determined Contribution (NDC) targets, the government began formulating a new national decarbonization pathway in 2024. Through the Climate Change and Net-Zero Emissions Transition Task Force,

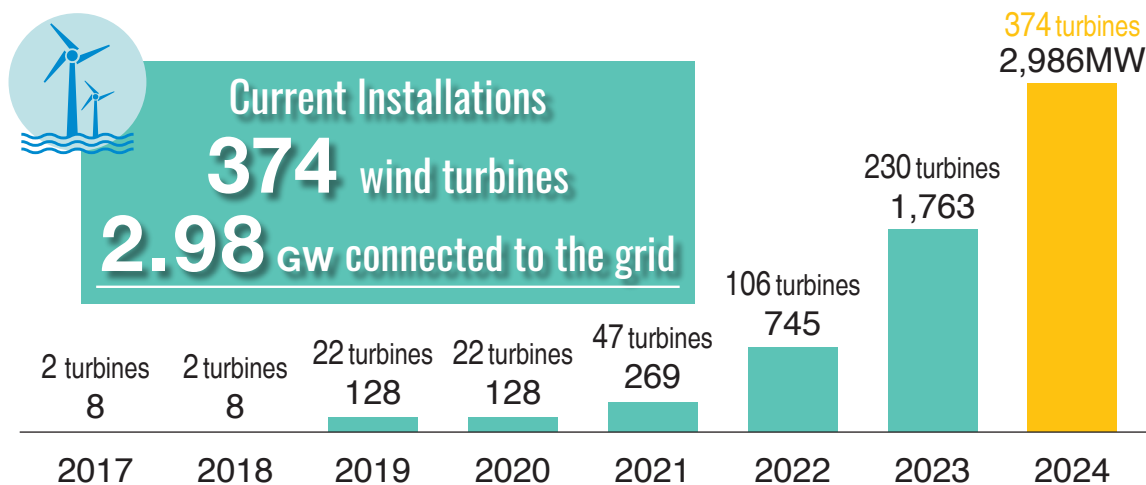
rounds of consultations were held with ministries, scholars, and experts to introduce proactive measures and strengthen Taiwan's decarbonization momentum. On January 23, 2025, the Ministry of Environment presented the new decarbonization targets at the third meeting of the National Climate Change Committee convened at the Presidential Office. The targets include reducing net greenhouse gas emissions by 28%  $\pm 2$  from 2005 levels by 2030, 32%  $\pm 2$  by 2032, and 38%  $\pm 2$  by 2035. In coordination with relevant ministries, the National Development Council subsequently proposed the Comprehensive Carbon Reduction Action Plan.

The action plan encompasses 20 flagship decarbonization initiatives across six major sectors: energy, manufacturing, residential and commercial buildings, transportation, agriculture, and environment. These sectors will conduct rolling reviews to strengthen top-down mitigation measures, supported by six key net-zero accelerators: technological innovation, financial support, carbon pricing, regulatory adaptation, green-collar talent, and community-driven initiatives. Through systematic and integrated decarbonization efforts, the government aims to achieve the 2050 net-zero target in a stable and realistic manner. The government budget is projected to exceed NT\$1 trillion, bringing about over NT\$6 trillion in private investment to foster a green economy while enhancing energy autonomy. The government will continue dialogue with the public, inviting stakeholders from industry, government, academia, research institutions, and private organizations to participate and expand interaction across all sectors of society.

### 2. Implementation results of the twelve key strategies for net-zero emissions

#### (1) Wind and Solar Power

A. Review and analysis were conducted on the relevant regulations on PV installation. On April 10, 2024, the Ministry of Economic Affairs announced the Guidelines for the Installation of Shared Step-Up Stations and Capacity Allocation for Solar PV Power Providers. On October 23, the Ministry released the completed amendments to the Renewable Energy Development Act, and on November 16, announced the Guidelines for the Competitive Bidding and Capacity Allocation



▲Figure 2-42 Progress in offshore wind development

for Solar PV Systems with Integrated Energy Storage.

- B. By the end of 2024, total solar PV installations reached 14.28 GW, including 9 GW from rooftop systems and 5.28 GW from ground-mounted systems. At the Ta Ya Group’s Zhiguang combined fish farm and solar power facility in Qigu District, Tainan City, developers reconfigured land use to restore aquaculture areas while advancing local engagement throughout the implementation process. The project successfully balanced fish farming operations with renewable energy generation.
- C. By the end of 2024, six offshore wind farms had been completed, with a total of 374 wind turbines installed and 2.98 GW connected to the grid. Taiwan ranked seventh globally in cumulative offshore wind capacity and first among democratic nations in the annual amount connected to the grid.

(2) Hydrogen Energy

- A. To advance net zero energy transition while ensuring a stable power supply and carbon reduction, Taipower signed a Dalin Power Plant Ammonia-Coal Co-firing Technology Cooperative Memorandum of Understanding (MoU) in February 2024 with Japan’s IHI Corporation and Sumitomo Corporation. The project aims to conduct an 8% coal-ammonia

co-firing demonstration by 2030. A midterm feasibility study meeting was held in October 2024, and it is projected that a reduction in CO<sub>2</sub> and SO<sub>x</sub> emissions proportional to the ammonia blending ratio could be achieved.

- B. Regarding hydrogen co-firing and carbon reduction potential, Taipower completed testing of a 5% hydrogen co-firing generator at Hsinta Power Plant. In the steelmaking sector, Taiwan is developing hydrogen metallurgy and mixed hydrogen/ammonia combustion technologies for industrial furnaces, along with key technologies for hydrogen production via electrolysis. On June 28, 2024, the Ministry of Economic Affairs amended the Regulations for the Establishment and Management of Gas Stations, allowing gas stations to operate hydrogen refueling services. Hydrogen station infrastructure was completed by the end of 2024.

(3) Innovative Energy

- A. As of 2024, the total installed geothermal capacity reached 7.49 MW, and biomass energy capacity totaled 751 MW. In addition, several ocean energy developers have initiated pre-deployment procedures, and government agencies have provided support to clarify and coordinate the permit application process.
- B. For deep geothermal development, the state-



owned enterprises China Petroleum Corp. (CPC) and Taipower have introduced foreign technologies and drilling expertise. On October 14, 2024, CPC began drilling Taiwan's first deep geothermal well (4,000 meters) in Yuanshan, Yilan, to assess geothermal potential and validate technologies. Plans are underway to establish a demonstration site through international collaboration.

#### (4) Power Systems and Energy Storage

- A. In 2024, the forecast accuracy rates for renewable energy were 8.54% (day-ahead) and 2.37% (hour-ahead) for wind power and 6.24% (day-ahead) and 3.45% (hour-ahead) for solar PV. In 2024, Taipower's self-built battery storage capacity reached 160 MW, with 1,260.3 MW certified for ancillary services and 123.15 MW in distributed storage.
- B. In 2024, demand response participation reached 3.4 GW. Advanced Metering Infrastructure (AMI) installations totaled 3.403 million households. The proportion of automated feeder outages restored within five minutes reached 66%.
- C. On May 4, 2024, the Changpin extra-high voltage substation successfully completed the installation of its main transformer and grid connection testing. This upgrade enables an additional 1 GW of renewable energy to be routed through the nearby Changpin Switching Station, expanding its original 1.5 GW grid capacity and enhancing Taiwan's renewable energy integration.

#### (5) Energy Saving

- A. In the industrial sector, 49% of major energy users adopted ISO 50001 energy management systems. A total of 700 industrial sites received assistance in their low-carbon processes.
- B. In the commercial sector, 661 new green building candidate certificates and labels were issued to encourage the commercial and service sectors to replace energy-intensive equipment. In 2024, equipment replacement subsidies were granted to 20,038 businesses,

replacing 220,000 units of equipment. Ninety-three system-level energy-saving projects were completed, saving 257.49 million kWh and reducing 127,205 tons of CO<sub>2</sub>.

- C. In the residential sector, 525 new green building candidate certificates and labels were issued. In addition, subsidies were provided to households to replace old appliances. In all, the subsidies supported the purchase of 1.531 million units of Level-1 energy-efficient appliances.
- D. In the transportation sector, tire inspection regulations were amended to include tire energy efficiency as a required inspection item. Amendments were made to the Fuel Economy Standards and Regulations on Vehicle Inspection and Administration. In addition, the types of vehicle types subject to energy efficiency inspection were increased in order to reduce energy consumption in the transport sector.
- E. In the technology sector, the government promoted energy-saving and low-carbon processes in the steel industry, fostered domestic self-sufficiency in rare earth materials, developed Taiwan's first Level-1 energy-efficient, low-carbon magnetic levitation chiller, developed a new high-efficiency circuit architecture, and developed a new wireless communication framework for sensors to achieve a 10% cost reduction.

#### (6) Carbon Capture, Utilization, and Storage (CCUS)

- A. The Industrial Technology Research Institute (ITRI) and Chimei Corporation has jointly developed a carbon capture and utilization technology and demonstration site that converts flue gas CO<sub>2</sub> into polycarbonate (PC), earning recognition in 2024 with an R&D 100 Award. The process uses CO<sub>2</sub> from flue gas as a carbon source. Through the development of a patented catalyst and a continuous processing technique, the CO<sub>2</sub> is converted into dialkyl carbonate (DRC), which is then used to produce polycarbonate (PC). Compared with conventional processes, this



method can reduce carbon emissions by approximately 17%. Upon mass production in the future, it is projected to cut 178,500 metric tons of CO<sub>2</sub> emissions annually, opening up new commercial opportunities for industrial decarbonization.

- B. The National Science and Technology Council completed development of a node-based subsea seismometer for integrated nearshore seismic testing and established a unified framework for consolidating land-sea seismic data.

### (7) Electric and Carbon Free Vehicles

- A. Under the 2030 Passenger Vehicle Electrification Promotion Plan (2024-2030), the Ministry of Transportation and Communications (MOTC) approved 1,628 electric buses for local governments in 2024, bringing the total to 3,319 buses and increasing adoption from 16.8% in 2023 to 31.5% in 2024. As of December 2024, electric passenger cars accounted for a 9.3% market share, with

37,629 new registrations and surpassing the 6% target market share. There were a total of 95,796 electric passenger cars, accounting for 1.3% of all passenger cars. Electric scooters reached a 10.5% market share, with 78,928 new registrations. There were a total of 774,651 electric scooters, making up 5.3% of all scooters.

- B. Taiwan has installed 10,535 public charging connectors (8,010 slow chargers and 2,525 fast chargers). With 95,796 total electric passenger cars, the overall charger-to-vehicle ratio is 9.1:1, and the fast charger ratio is 37.9:1. Both exceeded EU recommendations of 10:1 and 80:1, respectively. As of August 2024, all 15 national highway service areas are fully integrated into the EV charging network.

### (8) Resource Recycling and Zero Waste

- A. The Ministry of Environment has actively promoted its zero waste and resource circulation initiatives and has achieved several concrete outcomes. By the end of



▲Figure 2-43 Electric postal scooters



2024, the use rate of recycled aggregates in construction materials reached 66.9%; the volume of high-value recycled chemical waste liquids totaled 59,000 metric tons; 939,000 metric tons of industrial waste were converted into fuel; and 328,000 metric tons of organic waste were processed into fertilizer. All the above initiatives met their original targets.

- B. To enhance the efficiency of resource circulation across industries, the Ministry used a public-private partnership model to address sector-specific challenges and established the 8+N Resource Circulation Alliance. This alliance integrates upstream, midstream, and downstream sectors based on material characteristics to promote cross-sector collaboration and resource sharing. The goal is to improve industrial matchmaking, whereby by-products of an industry could serve as inputs for another, thus scaling up the value of the circular economy.
- C. The Ministry also proposed amendments to the Resource Circulation Promotion Act to address resource constraints and environmental burdens. The revised framework includes cross-ministerial collaboration and key measures such as sustainable product policies, circular procurement, and support for circular industries. In addition, the Waste Disposal Act was also amended to strengthen reuse management and curb illegal dumping.

#### (9) Natural Carbon Sinks

- A. The Ministry of Agriculture, in collaboration with relevant agencies, promotes natural carbon sinks. As of 2024, afforestation and enhanced forest management covered 12,349 hectares, and domestic timber production reached 61,000 cubic meters.
- B. For soil carbon sinks, Taiwan has promoted negative-emission crop varieties and cultivation techniques across 111,751 hectares. Additional practices, including in-field straw decomposition, organic fertilizers, and microbial fertilizers, were used on 274,475 hectares of farmland. Four non-destructive

spectral analysis technologies for soil organic carbon were developed and validated, achieving over 90% accuracy.

- C. In marine carbon sinks, the Ministry supported management and seagrass restoration across eight aquatic conservation zones in Liuqiu, Toucheng, and Suao, covering an area of 1,459 hectares. A standardized methodology for marine carbon sink measurement has been developed, with ongoing baseline data collection and assessment.

#### (10) Green Lifestyle

- A. The Ministry of Agriculture promoted organic and eco-friendly farming to encourage zero-waste, low-carbon diets, with the total cultivated area reaching 27,000 hectares. The Ministry of Environment promoted the reuse of textile products, collecting 82,000 metric tons of secondhand clothing to foster eco-friendly green fashion. In addition, the Ministry of the Interior launched a building energy efficiency labeling system. A total of 80 buildings, along with six social housing projects, received certifications, marking a first step toward “healthy near-zero carbon buildings.”
- B. With enhanced public transport services and diversified promotion strategies, the Ministry of Transportation and Communications (MOTC) projected public transport ridership to reach 2.196 billion passenger trips, thus realizing a low-carbon transport network. In addition, the Ministry of Environment issued the Circular Procurement Guidelines for the Public Sector, encouraging a “use over ownership” model. The Ministry also conducted the first national survey on green living literacy, using eco-point incentives to foster nationwide dialogue and guide citizens toward accessible, everyday carbon reduction actions.

#### (11) Green Finance

- A. The Financial Supervisory Commission (FSC) continues to encourage investment and financing in sustainability initiatives. It reported that, by the end of 2024, domestic banks had extended NT\$3.032 trillion in loans to



▲Figure 2-44 Second annual press conference by the Coalition of Movers and Shakers on Sustainable Finance on December 4, 2024

green power and renewable energy sectors. Insurance companies invested NT\$104.9 billion in green bonds and NT\$56.7 billion in renewable energy power plants. The total amount of sustainable development bonds issued reached NT\$681.1 billion, and ESG-themed mutual funds totaled NT\$857.6 billion.

- B. The FSC promotes carbon disclosure among listed companies. In 2024, 169 companies with paid-in capital exceeding NT\$10 billion and those in the steel and cement industries completed third-party verification of their greenhouse gas inventories. The FSC also launched a sustainable finance certification program, with 12,664 individuals earning basic-level credentials and 181 receiving advanced-level certifications by year-end.

## (12) Just Transition

- A. Just Transition Committee: In 2024, the National Development Council (NDC) convened two meetings of the Just Transition Committee and four working group sessions. These gatherings brought together private sector experts and public sector representatives to provide recommendations on Taiwan's plans and measures for a just transition to net zero.

- B. Public consultations on just transition to net

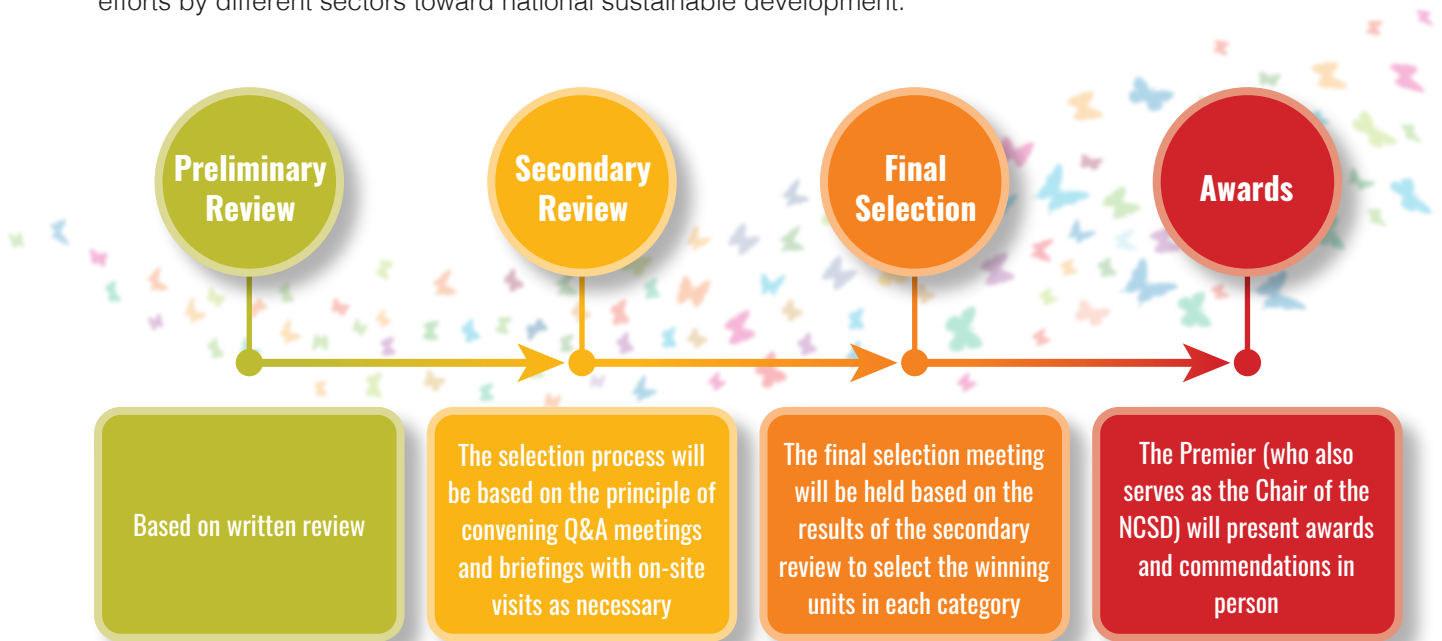
zero: To enhance public awareness, the NDC organized 18 consultation sessions throughout 2024, covering topics such as energy transition, industrial transformation, lifestyle transformation, and social transformation. In collaboration with non-governmental organizations, an additional nine consultation events were held to promote public participation and build consensus. Furthermore, 12 joint projects were carried out with private organizations to deepen public awareness and support for a just transition to net zero, helping the society respond to challenges during the transition.

- C. Disclosure of just transition information: All agendas and meeting records of the Just Transition Committee have been made publicly available on the NCS website. The NCS also works with government agencies and private organizations to promote the principles and values of just transition to net zero to gradually increase participation across sectors. In addition, the second 2050 Net Zero City Expo featured a dedicated Just Transition sub-forum, showcasing transitional milestones and solutions. The event attracted over 32,000 visitors from 46 countries and 112 cities, with more than 2,000 international participants engaging in dialogue and exchange.



## I. Introduction to the National Sustainable Development Awards

To honor organizations demonstrating outstanding performance in advancing sustainable development and to encourage broad public participation at both community and individual levels, the NCSD launched the 2024 National Sustainable Development Awards. In line with the spirit of sustainability, all applications were submitted online, and the maximum number of winners in each category is capped at 30% of total applicants, highlighting the efforts by different sectors toward national sustainable development.



▲Figure 3-1 Selection process for the National Sustainable Development Awards

## II. 2024 National Sustainable Development Awards Selection Results

The 2024 National Sustainable Development Awards include four categories: Education, Corporations, Civic Organizations, and Government Agencies. The selection process is overseen by the NCSD, which appoints a panel of independent experts and scholars to serve as members of the jury. The award selection process includes three stages: Preliminary Review, Secondary Review, and Final Selection. The Preliminary Review consists of a review of the submitted documents; the Secondary Review involves presentations and Q&A sessions, with on-site visits conducted as needed; and the Final Selection is determined through committee deliberation.

From April 16 to April 26, 2024, the NCSD held four regional campaigns across northern, central,

southern, and eastern Taiwan to promote the award's mission. Past winners from 2023 were invited to share their experiences and provide valuable insights for prospective applicants.

A total of 162 organizations registered for the 2024 award. The three-stage selection process was conducted between June 16 and September 30. On November 14, the list of 46 award recipients was officially announced. The award ceremony was held on December 19 at the National Taiwan University Hospital International Convention Center, with Premier Cho Jung-tai, who also serves as Chair of the NCSD, personally presenting the honors. In addition, to encourage continued efforts among non-winning participants, the Judges' List Award was introduced, recognizing 17 additional organizations. Award recipients are also eligible to participate in the Net-Zero City Expo, showcasing their contributions to sustainable development.


**Table 3-1 Winners of the 2024 National Sustainable Development Awards**

| Category   | Recipients   | Category   | Recipients  |
|--|--|--|---|
| <b>Education</b><br>(6 awardees in all)          | National Chung Hsing University                      | <b>Civic Organizations</b><br>(5 awardees in all)  | Taiwan Homemakers United Consumers Co-op  |
|  | National Taiwan University                           |  | Dalin Tzu Chi Hospital, Buddhist Tzu Chi Medical Foundation   |
|  | National Taiwan University of Science and Technology |  | Kaohsiung Municipal Siaogang Hospital   |
|  | National Taiwan Ocean University                     |  | Penghu County Huxi Township Nanliao Community Development Association   |
|  | Shih-fen Elementary School in New Taipei City        |  | Taipei Medical University-Shuang Ho Hospital  |
|  | Taipei Medical University                            |  |   |
| <b>Corporations</b><br>(25 awardees in all)      | Swancor Holding Co., Ltd.                            | <b>Government Agencies</b><br>(10 awardees in all) | Northern Region Maintenance Engineering Branch, Highway Bureau, Ministry of Transportation and Communications: Development Plan to Ensure Premium Scenic Quality along Taiwan Provincial Highway No. 2 on the North Coast |
|  | Dawushan Farm Technology Co., Ltd.                   |  | Office of Road and Accessory Maintenance, Taoyuan City: Taoyuan City Smart Streetlight Installation Project   |
|  | China Steel Corporation                              |  | Environmental Protection Bureau, Kaohsiung City Government: Talent Development through the Net-Zero Institute   |
|  | China Motor Corporation                              |  | National Museum of Marine Science and Technology (NMMST): More Than Just a Green Museum   |
|  | Yuanta Financial Holding Co., Ltd.                   |  | Yunlin County Fire Department: Building a Hybrid Care Alliance  |
|  | Advanced Semiconductor Engineering, Inc. ChungLi     |  | Yunlin County Environmental Protection Bureau: Turning Waste into Power through a Fully Circular Waste Ecosystem  |
|  | Bank SinoPac Co., Ltd.                               |  | Water Resources Agency, Ministry of Economic Affairs: Pioneering Carbon Budgeting Toward a Greener, Bluer Taiwan  |
|  | La Vida Tec Co., Ltd.                                |  | Bureau of Standards, Metrology and Inspection (BSMI): Advancing Renewable Energy Certification for a Sustainable Future   |
|  | Interplan Group                                      |  | Chiayi City Government: Advancing Sustainability in Taiwan's Wood Capital   |
|  | Allianz Taiwan Life Insurance Co. Ltd.               |  | Ministry of Environment: Establishing a Smart Air Quality Monitoring System   |
|  | Apollo Aquatic Product Co., Ltd.                     |  |   |
|  | HTC Corporation                                      |  |   |
|  | Qisda Corporation                                    |  |   |
|  | MEAN WELL Enterprises Co., Ltd.                      |  |   |
|  | Nan Ya Plastics Corporation Mailiao                  |  |   |
|  | MacroHi Co., Ltd.                                    |  |   |
|  | WNC Corporation                                      |  |   |
|  | First Commercial Bank Co., Ltd.                      |  |   |
|  | KGI Life Insurance Co., Ltd.                         |  |   |
|  | Fubon Life Insurance Co., Ltd.                       |  |   |
| Faraday Technology Corporation                   |  |  |   |
| Winbond Electronics Corporation                  |  |  |   |
| Shin Kong Financial Holding Co., Ltd.            |  |  |   |
| United Daily News Co., Ltd.                      |  |  |   |
| General Interface Solution (GIS) Holding Limited |  |  |   |



▲Figure 3-2 2024 National Sustainable Development Awards ceremony



### III. About the Awardees



#### National Chung Hsing University

**Sustainability achievements:** On September 28, 2022, National Chung Hsing University (NCHU) established its Office of Sustainable Development and pledged to achieve net-zero emissions by 2040, demonstrating its commitment to Taiwan's sustainable future. In the area of sustainability research, 234 faculty members are engaged in research on the 12 key strategies related to Taiwan's Pathway to Net-Zero Emissions, highlighting the university's determination and robust research capacity in environmental protection and sustainable development. In the area of social contribution, NCHU dispatched its first batch of agricultural teams to Africa, Thailand, and Arab nations in the 1960s to promote farming technologies. At present, it participates in the University Social Responsibility (USR) initiative and has launched projects that include Taiwan's only USR initiative that



▲ Figure 3-3 National Sustainable Development Awards – Education Category Winner: National Chung Hsing University. The university has installed solar PV energy storage systems and EV charging stations on campus rooftops, advancing its goals of energy autonomy and net-zero carbon emissions

focuses on stray animal care and welfare, horticultural therapy for the elderly, the Twin Pulses of Green and Dry initiative that focuses on the two historic rivers in Taichung, indigenous community welfare, and environmental resilience. These initiatives encourage students to engage directly with local communities and have received widespread public acclaim. In environmental sustainability, the university has implemented energy performance guarantee projects to reduce the use of high-energy-consumption equipment by gradually replacing lighting systems with LED fixtures, promoting paperless administration, and advancing green procurement. These are in line with its three goals of energy conservation, carbon reduction, and improved efficiency. For general business waste, recyclable waste, and hazardous waste, the university has also implemented multiple management policies to promote resource regeneration and realize its circular economy policies.

**Award Highlights:** (1) Establishing Taiwan's only Academy of Circular Economy, dedicated to cultivating high-level technological talent in key circular economy sectors. (2) In 2021, the university's Hsi Hsin Pa Farm was designated as a demonstration site for carbon neutrality. Green energy facilities such as solar PV systems and hydrogen power generation were installed, and a carbon inventory was conducted in accordance with ISO 14064-1:2018 standard. (3) At its Nantou campus, solar panels on buildings are connected to storage systems and EV charging stations, forming an independent microgrid powered entirely by renewable energy. This net-zero demonstration site offers energy autonomy, net-zero emission, disaster resilience, and wartime backup functions. Grid integration is scheduled for completion by March 2025.

**Vision Blueprint:** (1) To eventually become a net-zero emissions campus by 2040; (2) to continue advancing a green university and inclusive, friendly environment; (3) to expand the university's impact and fulfill its social responsibility; (4) to build a sustainability platform to guide industrial upgrade; (5) to create a model campus for net-zero green living; and (6) to establish a regional sustainability think tank for policy consultation.



## National Taiwan University

**Sustainable Achievements:** National Taiwan University (NTU) established its Sustainable Development Promotion Committee and the Office of Sustainability in 2022, positioning the SDGs as a core value of university development. Guided by its vision to build campus sustainability capacity and extend social influence, NTU has proactively and regularly conducted greenhouse gas inventories since 2010. It is the first national university in Taiwan to complete third-party verification of its greenhouse gas emissions and obtain an official declaration. In 2020, NTU announced its climate action targets: 50% carbon neutrality by 2028 and 100% carbon neutrality by 2048. As the first university in Taiwan to declare a low-carbon transition goal, NTU is committed to the global higher education sector's role and responsibility in advancing climate action.

**Award Highlights:** In 2007, NTU published Taiwan's first university sustainability white paper. In environmental actions, it became the first university in Asia to fully withdraw its university fund investments from high-pollution and high-carbon industries in 2020. In society, NTU released Taiwan's first gender-friendly restroom design manual for universities in 2017, setting a benchmark for campus gender equality. In 2022, it launched the International Mentorship Program, Taiwan's first mentorship-based internship program for international students, to promote local integration and deepen international exchange. In governance, NTU initiated the Taiwan University Alliance for Sustainable Governance in 2022, working together with domestic universities to advance sustainable development in higher education and uphold university social responsibility. In 2023, NTU's Center for Weather and Climate Disaster Research joined the International Sustainable Campus Network (ISCN), supporting domestic climate disaster prevention and providing assistance to diplomatic allies such as Belize and Guatemala, thereby contributing to global climate governance.

**Vision Blueprint:** In 2024, NTU released its Mid-

Term University Development Plan (2024–2028), placing sustainable development at its core and driving SDG responses through top-down initiatives. Through infrastructure upgrades, the creation of a campus sustainability dashboard, and the transmission of governance experience, it aims to integrate sustainability into all facets of campus life. The university actively encourages faculty and students to engage in sustainability practices and uses diverse incentive systems and integrated curricula to cultivate sustainability-minded talent. NTU will continue to promote its sustainability governance experience and participate in international sustainability networks to contribute to sustainable development in Taiwan and globally.

## National Taiwan University of Science and Technology

**Sustainable Achievements:** National Taiwan University of Science and Technology (Taiwan Tech) has in recent years moved in line with international trends and integrated sustainability into its vision of "2030 Unlimited University." In the area of the environment and sustainability, Taiwan Tech has set a goal of achieving carbon neutrality and low-carbon transition by 2049 and in 2023 completed a greenhouse gas inventory, earning ISO 14064-1:2018 certification. In social sustainability, the university has built a USR ecosystem using the interaction between faculty and students, the university, surrounding communities, and the broader external environment to promote social responsibility. In Phase III of the Ministry of Education's USR program, Taiwan Tech secured five project grants, becoming one of only two institutions islandwide to do so and earning strong recognition from the Ministry. On sustainable governance, Taiwan Tech continues to achieve outstanding global rankings for its academic excellence. For instance, in the 2024 Times Higher Education (THE) Young University Rankings, Taiwan Tech was ranked 52nd globally, ranking second in Taiwan and first among technical and vocational universities. In the 2024 THE



Asia University Rankings, Taiwan Tech ranked 71st, placing it firmly within the Top 100 in Asia and earning the distinction of being Taiwan's No. 1 university for International Outlook.

**Award Highlights:** (1) Integrating academic research and industrial innovation for sustainable development in technical and vocational education; (2) developing the concept of "Unlimited University" and sustainability brand to enhance social impact; (3) promoting interdisciplinary STEM innovation and empowerment of women in research; and (4) cultivating ESG-literate talent and advancing actionable sustainability practices.

**Vision Blueprint:** Taiwan Tech envisions becoming an international applied research university focused on technological innovation and industrial application. It is committed to cultivating globally competitive talent in technology and management with a strong foundation in innovation, practical engagement, and social responsibility. To advance environmental sustainability, the university aims to achieve carbon neutrality by 2049 and has formulated short-, medium-, and long-term strategies, which include campus infrastructure upgrades, green energy R&D, and internal emission reduction measures. Externally, it promotes industry-academia collaboration in green energy research and applications while actively seeking international partnerships. To foster social responsibility, the university adopts an innovative approach to shaping its USR initiatives, designing specialized general education courses that embrace participant diversity and incorporate both global issues and local awareness. These efforts aim to cultivate socially responsible talent and promote local sustainable development. To strengthen sustainability governance, it incorporates sustainable development into school operations, enhancing the connection between curriculum, research projects, and sustainability indicators. It continues to support disadvantaged students, promote gender equity, and uphold the public mission of higher education, while deepening cross-university and international collaboration through sustainability alliances.

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## National Taiwan Ocean University (NTOU)

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**Sustainable Achievements:** (1) NTOU has developed a series of nine marine education classes, designed to guide students in developing a closer connection with the ocean, and has attracted over 1,500 participants. It also held 56 classes promoting sustainable seafood education. The university also promotes carbon reduction through the development of new green energy technologies, research on macroalgae carbon sequestration, sustainable aquaculture, and the reuse of waste materials to construct artificial fish reefs. (2) The university has helped 33 local businesses in reducing carbon emission through smart upgrades, developed five sustainable marine products and two algae-based specialty foods, and facilitated 12 cultural preservation initiatives through creative industries. It has also cultivated a diversified marine leisure industry and collaborated with Hon Hai ESG on the Sustainable Marine Circular Resources initiative to promote marine environmental conservation. (3) It has established a Center for Sustainable Development, promoted green procurement, and created a gender-inclusive and friendly environment. It continues to build domestic and international partnerships to institutionalize sustainability, revitalize local communities through digital technologies, and collaborate with the CP Yen Foundation to establish a platform for multi-stakeholder dialogue. NTOU is also strengthening international ties with the U.S., Canada, Japan, and South Korea.

**Award Highlights:** NTOU focuses its sustainability efforts on social engagement to align university resources with community needs. Through its marine-related expertise, the university offers solutions to different issues while cultivating talent in the relevant fields. The goal is to ensure shared prosperity and social well-being. Key initiatives include: (1) a USR x ESG reciprocal model; (2) development of marine-themed sustainable products; (3) smart and digital transformation; and (4) innovative approaches to marine environmental conservation.



**Vision Blueprint:** NTOU aspires to become a world-class, internationally oriented marine university rooted in ocean research and education. It is committed to advancing Taiwan's marine education and the sustainable development of marine industries. Guided by its motto "Honesty, Simplicity, Fraternity, and Perseverance," the university strengthens research and teaching in marine disciplines and fosters international collaboration to promote the sustainable use of ocean resources. To ensure sustainable governance, NTOU continues to pursue net-zero carbon strategies and actively engages in climate change mitigation. It has invested much effort into green energy and smart ocean technologies to enhance environmental protection and ecological balance. Through leadership in global marine research and education, NTOU aims to become a driving force in sustainable ocean development.

## Shih-fen Elementary School in New Taipei City

**Sustainable Achievements:** Shifen Elementary School (Shifen), located in Pingxi District, New Taipei City, promotes sustainability-oriented environmental education through whole-school participation and a comprehensive strategy. Initiatives include actively developing curriculum and teaching, strengthening school leadership and governance, fostering community-based action and co-learning, and implementing campus environment and energy/resource management. Through these efforts, sustainability is embedded into the school's teaching and learning, enabling the next generation to engage more deeply with the core values of the global community and advancing the vision of becoming a Sustainable and High-Quality Shifen School.

**Award Highlights:** (1) Shifen has created a distinctive arts curriculum that fosters local revitalization. (2) Integrating resources from the National Yunlin University of Science and Technology and the local coal mine sector, the school has expanded its cultural curriculum to help revive the



▲Figure 3-4 National Sustainable Development Award – Education Category Winner: Shih-fen Elementary School in New Taipei City. The school develops a mining culture curriculum to support the preservation of local cultural heritage

region's coal mine heritage through exchanges with Japan. These efforts aim to preserve valuable cultural assets and revive the collective memory of the golden years of the local coal mine industry. (3) The school has designed an ecological curriculum focused on restoring the Keelung River. Through immersive ecological learning, students trace the Keelung River to its source, collect and analyze water samples from upstream communities including Jingtong, Lingjiao, Shifen, and Sandiaoling, and carry out youth-led civic actions to protect the river's ecosystem.

**Vision Blueprint:** In the short term, Shifen aims to align with SDG 4 (Quality Education), SDG 11 (Sustainable Cities and Communities), and SDG 12 (Responsible Consumption and Production), continuing to harness the influence of its arts, culture, and ecology curricula. It seeks to restore the Keelung River's water quality through local revitalization and cultural preservation. With guidance from experts and university professors, the school hopes to compile a set of school-based curricula titled "Shifen Sky Light: Illuminating Shifen's Future." The school also remains committed to supporting local industry renewal and coal heritage preservation. In the medium term, Shifen plans to form the "Guardians of Shifen" eco-team composed of parents, teachers, and students, and to



utilize artificial intelligence and big data platforms to optimize carbon reduction strategies. These efforts will have marginal benefits, help promote environmental pathway outcomes, and foster community collaboration toward building a climate-friendly school-community ecosystem. In the long term, Shifen will continue to advance sustainability education in response to global climate change, actively develop curriculum and teaching, enhance school leadership and governance, manage environmental and energy resources, and deepen place-based action and community co-learning. Through these initiatives, Shifen aims to keep abreast of international trends and evolve into a globally-oriented sustainable future school.

## Taipei Medical University

**Sustainable Achievements:** Taipei Medical University (TMU) positions itself as an innovation-driven university with strong social impact focused on medical education and biomedical practice. The university embraces the mission of low-carbon and net-zero transition, actively working to mitigate the effects of climate change. In education, since 2020, TMU has aligned its curriculum with the UN SDGs, offering courses, micro-credit module courses, and credit programs focused on environmental and sustainability issues. The university also promotes green offices and laboratories, encourages lifestyle transformation, fosters carbon literacy, and cultivates a sense of responsibility for sustainable development among faculty and students. In environment-related initiatives, TMU promotes transformation in daily life, energy, and digitalization. Through ISO 14064-1 and ISO 50001 certification, the university has implemented energy performance improvement measures, enhanced smart management of water and electricity, and developed energy-generating infrastructure. These efforts strengthen TMU's green and smart campus management and integrate lifestyle transformation with environmental sustainability education, in order to establish a demonstration site for sustainable campus. In interaction with the society, the university leverages its medical expertise and

resources to promote international medical aid. It has deployed medical teams to Eswatini, Somaliland, and the Marshall Islands. Apart from medical services, the missions also focus on capacity building and helping local partners establish medical training systems. These efforts contribute to the health and well-being of Taiwan's diplomatic allies and enable TMU to share its experience in integrating healthcare with sustainable development on a global scale.

**Award Highlights:** Guided by science-based targets, TMU is actively pursuing low-carbon and net-zero transition. The university aims to reduce carbon emissions by 30% by 2030 and achieve net-zero by 2045. It is building a climate-resilient One Campus to promote awareness on sustainability among faculty and staff and cultivate future leaders in sustainability. Key innovations include: (1) a comprehensive sustainability education framework; (2) clean energy and circular economy initiatives; and (3) development of a low-carbon, sustainable healthcare system.

**Vision Blueprint:** TMU is committed to low-carbon transition across its campus and affiliated medical institutions. Its vision includes the cultivation of talent across disciplines and the construction of resilient, low-carbon healthcare systems. The university will continue to focus on digital transformation and sustainable practices. Working together with domestic and international partners, the university will drive innovation in green energy and smart healthcare, reinforcing its resilience and efforts in climate adaptation and sustainability.



## Swancor Holding Co., Ltd.

**Sustainable Achievements:** Swancor Holding Co., Ltd. has established a Sustainability Development Committee as its highest-level decision-making body for sustainability. The committee is responsible for setting ESG policies and overarching goals, overseeing the promotion and implementation of sustainability initiatives, and regularly reporting to the Board of Directors. Under the committee, there is a dedicated Promotion Office, headed by a chairperson appointed by the committee head. This office follows the strategic direction of the Board, integrates internal resources, and serves as a cross-departmental communication platform to ensure vertical and horizontal coordination within the company to integrate sustainability strategies into daily operations.

**Award Highlights:** Swancor has launched two revolutionary products: EzCiclo, a recyclable and reusable epoxy resin, and CleaVER, a technology that turns waste into reclaimed glass/carbon fibers and oligomers. These products redefine recycling through advanced chemical innovation, significantly reducing raw material consumption and enhancing the potential for material reuse and the feasibility of closed-loop systems, thereby promoting resource sustainability and the green circular economy. The EzCiclo product line has received ISO 14021 certification, confirming that composite materials made with EzCiclo can achieve a recycling rate of  $\geq 95\%$ . The product is widely used across different sectors, including wind turbine blades, construction, marine applications, sports and leisure, rail transport, and automotive industries. In addition, Swancor's recycled carbon fiber has earned the world's first GRS certification for 100% recycled carbon fiber, along with ISO 14067 certification.

**Vision Blueprint:** Since its founding, Swancor has upheld its core values of quality, integrity, innovation, and diligence. Guided by its mission "Devoted to Carbon Neutrality and New Materials Innovation," the company continues to provide circular and sustainable products and services, contributing to net-zero carbon goals and the development of a circular economy. Looking ahead, Swancor plans to establish the Recyclable Low Carbon Circular Economy Alliance, building a cross-sector and cross-application ecosystem to create value, connect green supply chains, and attract external resources. The company invites stakeholders from industry, government, academia, and research to join the alliance, aiming to unlock circular economy opportunities through shared technology and resources.

## Dawushan Farm Technology Co., Ltd.

**Sustainable Achievements:** Since 2020, Dawushan Farm Technology Co., Ltd. has been committed to low-carbon livestock and poultry farming while promoting precision nutrition and feeding methods to reduce carbon emissions. By advancing feeding techniques to lower methane emissions from poultry and collaborating with academic and government institutions on experimental projects, Dawushan aims to support efforts to reduce greenhouse gas emissions across the sector. The company has also expanded its cultivation of environmentally friendly agricultural products, increasing both crop variety and acreage. Acting as a bridge between farmers and end-market foodservice channels, Dawushan coordinates production and sales to secure farmers' incomes, encourage young farmers to return to rural areas, and revitalize the rural workforce. The company envisions a countryside where youth return home to work the land and revitalize rural communities, transforming rural communities from aging populations into vibrant, thriving ecosystems.

**Award Highlights:** Dawushan actively engages with nearby stakeholders, offering organic fertilizers at preferential prices to interested partner farmers. This



▲Figure 3-5 National Sustainable Development Award – Corporation Category Winner: Dawushan Farm Technology. The company is dedicated to advancing low-carbon practices in the livestock sector and supporting rural development through coordinated production and marketing initiatives

initiative supports soil improvement and encourages reduced use of chemical fertilizers, fostering shared environmental stewardship. The company also helps farmers manage unsold inventory of non-enhanced products through group purchasing mechanisms. Dawushan aspires to become a collaborative platform and ecosystem hub for farmers to enhance visibility and improve sales margins.

**Vision Blueprint:** Dawushan transforms organic waste into nutrient-rich compost, increasing soil carbon sequestration while mitigating pollution caused by traditional burning of agricultural waste. Through a systematic approach, the farm incorporates processed biochar into organic fertilizers, improving soil absorption of organic matter and establishing a regenerative model of soil protection and carbon fixation.

## China Steel Corporation

**Sustainable Achievements:** In 2023, China Steel Corporation (CSC) restructured its Intelligent Production and Sales Committee to become the Task Force on Digital Transformation to upgrade its automation systems into intelligent operations through cross-departmental collaboration and the use of cutting-edge technologies such as IoT, big data, and artificial intelligence (AI). A key achievement was the development of the smart temperature control system for reheating furnaces, which uses AI in 16 heating furnaces across the CSC Group. This innovation yields annual energy savings of approximately 145 million kilocalories, equivalent to a carbon reduction of around 31,000 metric tons and fuel cost savings of NT\$154 million. CSC has also actively promoted the use of



recycled materials and increased the proportion of scrap steel used in production, becoming the world's first steel manufacturer to be certified under the UL 2809 standard for recycled content.

**Award Highlights:** (1) In 2023, CSC used its own carbon reduction technology, and along with carbon credit offset mechanisms, to produce the first batch of 150 metric tons of wire rod products certified for carbon neutrality. These were delivered to downstream clients for processing, who then offset their emissions using international carbon credits and declared the production of carbon-neutral hex bolts. The process marked a major milestone in building a low-carbon value chain for Taiwan's steel industry. (2) CSC established a carbon management advisory team to promote "value co-creation," assisting downstream clients in building carbon inventory capabilities, identifying emission hotspots in their processes, and tailoring carbon reduction strategies. In 2023, the team assisted 22 companies in achieving an annual electricity-saving potential of 8.68 million kWh and a carbon reduction potential of 4,443 metric tons. In 2024, the goal was to assist 20 additional clients. Ultimately, CSC envisions its clients forming their own advisory teams to extend carbon management support across the broader industrial chain, accelerating green transformation.

**Vision Blueprint:** Guided by its vision to become a sustainable growth enterprise committed to smart innovation, green energy, carbon reduction, and value co-creation, CSC has laid out a diversified carbon reduction roadmap of decarbonization in the short-term, and transition from low-carbon to net-zero in the medium- and long-term. To achieve this goal, CSC has formulated a ten-year strategic development plan that centers on four strategic pillars: financial performance, developing Advanced Premium Steel (APS), green energy and environmental protection, and intelligent manufacturing. With operations focused on becoming a steel mill that produces premium products with high value and developing the green energy industry, CSC is implementing ten strategic initiatives and action plans to evolve into a specialized, refined, and robust smart steel manufacturer.

## China Motor Corporation

**Sustainable Achievements:** China Motor Corporation (CMC) adheres to the principles of integrity in business and its HITS management philosophy: Harmony, Innovation, Top, and Sustainability. For ten consecutive years, CMC has ranked in the top 5% of the Taiwan Stock Exchange's Corporate Governance Evaluation. In 2023, it became the first automotive company in Taiwan to sign onto the Science Based Targets initiative (SBTi), committing to science-based emissions reduction targets. In society, CMC has long leveraged its automotive expertise to support remote communities. Initiatives include the Vehicle Maintenance Service Tour in remote areas, and the Happiness Guardian Program, which has donated 16 Delica vehicles to support baseball development and rural education. CMC also supports the MOTC's PuPu Ride Sharing Program, providing ride sharing services in Zhuoxi, Fuli, and Wanrong Townships in Hualien County, and Yanping Township in Taitung County.

**Award Highlights:** (1) Leading by example, CMC and its upstream and downstream supply chain partners signed the 2050 Net-Zero Declaration jointly. Alongside 11 other suppliers, it secured funding from the Ministry of Economic Affairs to implement 41 equipment upgrades to improve energy efficiency and reduce carbon emissions, investing a total of NT\$110 million. (2) In 2024, the company also began incorporating biodiversity into its operations, conducting nature-related financial disclosures and building an ecological pool to restore native Taiwanese species. (3) Building an inclusive workplace: Since 1997, CMC has operated an on-site kindergarten and after-school care center to support employees' childcare needs. In 2012, it launched the Triple Zero Evergreen Program to promote career development for middle-aged and elderly employees through three pillars: Zero Barriers in the Workplace, Zero Health Burdens, and Zero Limits on Development.

**Vision Blueprint:** CMC actively integrates internal and external resources to develop a diverse range of new energy vehicles that meet market needs while advancing environmental goals. In line with Taiwan's



2050 Net-Zero Roadmap, the company has set short-, medium-, and long-term carbon reduction targets. Through multi-channel engagement with businesses and consumers, CMC aims to accelerate the adoption of new energy vehicles and achieve 100% market share for electric cars and scooters by 2040. In recent years, CMC has also driven digital transformation, not only enhancing customer experience through digital platforms, but also improving operational efficiency in support functions using advanced technologies. Through industry-academia collaboration, CMC is building a new service ecosystem to further its digital evolution.

## Yuanta Financial Holdings Co., Ltd.

**Sustainable Achievements:** Yuanta Financial Holdings has taken a leading role in sustainable finance by joining the Partnership for Carbon Accounting Financials (PCAF) and the Partnership for Biodiversity Accounting Financials (PBAF). It has passed the Science Based Targets initiative (SBTi) review and is a member of the Coalition of Movers and Shakers on Sustainable Finance, committing to five key areas including green procurement. As convener of the Capacity Building and Certification Working Group of the Taiwan Financial Services Roundtable, Yuanta is actively expanding the financial sector's pool of sustainability talent. In line with the UN SDGs, the company has developed short-, medium-, and long-term goals under its Sustainable Development Strategy Blueprint. It has adopted sustainability standards and ISO management systems (including ISO 14064, ISO 14046, and ISO 20400), and is ahead of industry peers in implementing internal carbon pricing and IFRS ISSB S1 standards. Yuanta also fosters stakeholder partnerships through initiatives such as participation in the 2024 Net-Zero City Expo, promoting green supply chain transformation, and launching the Yuanta 188 Sustainability Relay Program, which embodies the spirit of shared sustainability.

**Award Highlights:** Yuanta has established a climate governance framework in line with international standards and initiatives, enhancing its operational and

investment-related carbon inventory while managing climate risks and opportunities. It has implemented an internal carbon pricing mechanism to embed climate risk awareness into its core operations. In 2023, its pilot program yielded strong results, with group-wide carbon reduction exceeding the original 8% target. Its subsidiary, Yuanta Bank, was further recognized by the Financial Supervisory Commission as an A-grade lending institution under the Six Core Strategic Industry Lending Program. As convener of the Capacity Building and Certification Working Group, Yuanta works to build net-zero transition capabilities across the financial sector, developing relevant standards and talent cultivation mechanisms in collaboration with industry and stakeholders.

**Vision Blueprint:** On the policy front, Yuanta continues to keep abreast of government and international standards, addressing both physical and transitional risks of climate change. It is refining its sustainable finance offerings, responsible investment and lending practices, low-carbon operations, and sustainable supply chain management. Yuanta supports Taiwan's four major transformation strategies of energy transition, industrial transformation, lifestyle transformation, and social transformation, and integrates net-zero principles into daily operations and business decisions. Recognizing that "sustainability talent" is key to advancing ESG excellence, Yuanta will continue to serve as convener of the Capacity Building and Certification Working Group and act as a bridge between government and industry to help build a robust talent development framework for the financial sector.

## Advanced Semiconductor Engineering, Inc. ChungLi

**Sustainable Achievements:** ASE ChungLi embraces the principle of sustainable management to cultivate an environment conducive to long-term development. It established a Sustainability Development Committee and adopted strategies of integration, expansion, and innovation to address future challenges. These efforts form the foundation



for aligning and refining the company's sustainability strategy and corporate social responsibility blueprint, embedding sustainability into daily operations. Through continuous innovation and digital integration, ASE ChungLi is actively advancing toward carbon neutrality, improving energy and water efficiency, promoting circular economy practices, fostering an inclusive and equitable workplace, and building a healthy, safe, and sustainable environment. It collaborates with diverse partners across industry, government, and academia, and engages its value chain to promote shared prosperity and social care.

**Award Highlights:** ASE ChungLi is implementing the low-carbon energy transition. In 2023, it increased renewable energy procurement by 50%, resulting in a 23% reduction in annual carbon emissions. It became an industry pioneer by obtaining ISO 46001 Water Management System certification, achieving an average water reuse rate of 3.7 times. It has also innovatively recycled its packaging waste and discarded molding compound into permeable high-pressure bricks and silica. It introduced a low-temperature copper wire bonding process ahead of industry peers and earned the Green Factory certification. To build a sustainable supply chain, ASE ChungLi has enhanced supplier sustainability performance and focused on safety and health, mentoring 50 suppliers to improve occupational safety. Since 2018, the plant has consistently earned a perfect score of 200 (Platinum rating) in Responsible Business Alliance (RBA) assessments, the highest honor in responsible business conduct.

**Vision Blueprint:** ASE ChungLi will continue advancing its five strategic pillars, including digital integration, carbon reduction, and net-zero, among others, to foster shared prosperity. Leveraging its pivotal role in the semiconductor industry and its innovative technologies, it adjusts phased goals and maintains rigorous monitoring to expand its environmental impact management scope. The company aims to fulfill its low-carbon and circular regeneration mission by maximizing material use, minimizing waste, and reducing operational environmental impact. ASE ChungLi also supports and empowers social enterprises to pursue business

opportunities while addressing sustainability and societal challenges. By strengthening supplier partnerships and guiding more vendors toward proactive sustainability practices, it contributes to solving global challenges through collective action.

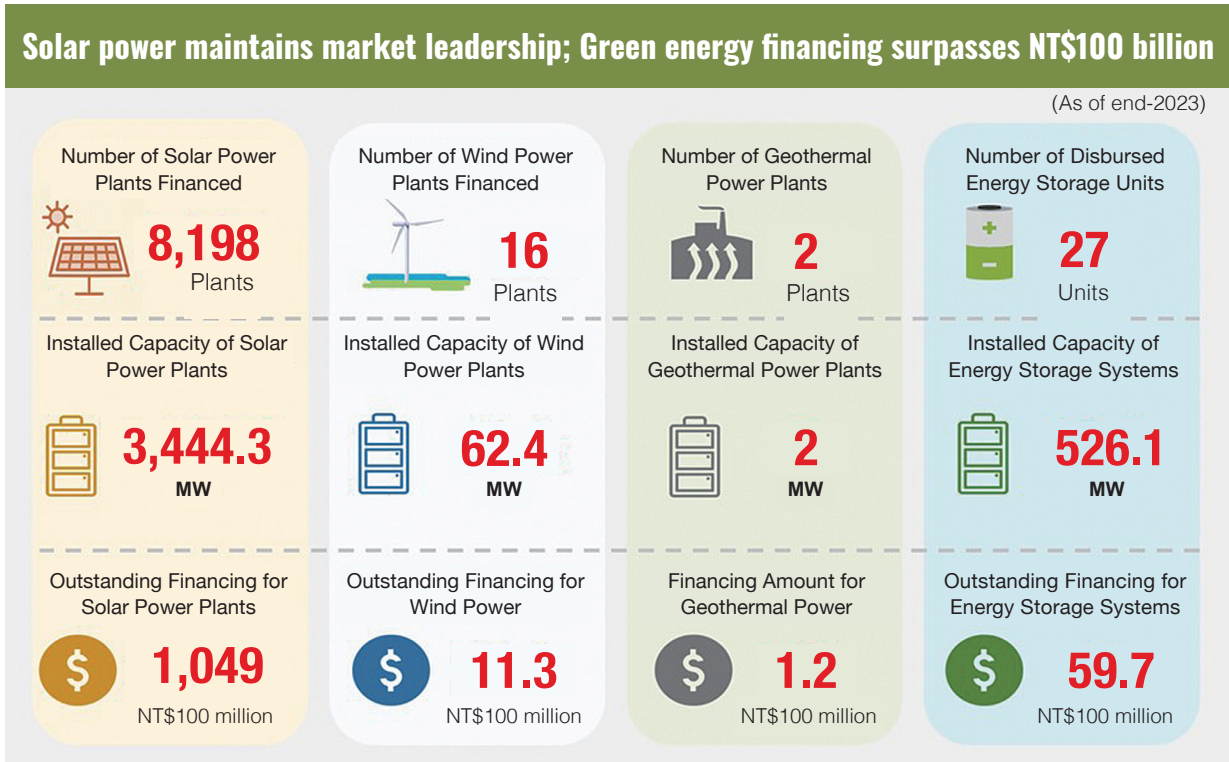
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## Bank SinoPac Co., Ltd.

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**Sustainable Achievements:** Bank SinoPac Co., Ltd. has established a Sustainable Development Task Force to plan and implement key sustainability initiatives, in keeping with the three core sustainability commitments of its parent company, SinoPac Financial Holdings: eliminating inequality, mitigating and adapting to climate change, and promoting inclusive growth. With over a decade of experience in green energy financing, Bank SinoPac has surpassed NT\$100 billion in outstanding loans, maintaining a leading market share of nearly 30% in solar energy. It has pioneered financing for energy storage systems and expanded into geothermal, small hydro, and biomass energy sectors. To realize financial inclusion, the bank has developed financial products tailored for farmers, migrant workers, the elderly, and individuals with disabilities. It has also actively promoted financial literacy in townships and communities to enhance accessibility and equity. In addition, it invests in long-term social engagement, nurturing youth in the arts, culture, and financial literacy, and is the exclusive sponsor of the Song of Life Co-creation project, which promotes cultural diversity in rural areas.

**Award Highlights:** Bank SinoPac created Taiwan's first Green Energy Electricity Trading Trust Platform, using a trust-based framework to foster mutual confidence among power generators, buyers, and sellers to increase the transparency and security of green power transactions. Its Green Power Plant Information Management System, which uses big data and AI to optimize site selection, revenue forecasting, and risk assessment, has received patent certification from the Intellectual Property Office of the Ministry of Economic Affairs. The bank has also reimaged the branch experience by introducing the iBranch Platform



▲ Figure 3-6 National Sustainable Development Award – Corporation Category Winner: Bank SinoPac. A leader in green energy financing with solar power loans accounting for 30% of the market, Bank SinoPac firmly secures its position as the industry’s top performer

to offer the first fully digitalized branch services. In addition, it has launched a smart transaction platform for agricultural products, issuing multifunctional wholesale and distributor cards for agricultural products, paired with credit limits. This initiative improves payment flows in traditional wholesale markets and reduces the risks associated with cash handling, offering farmers and consumers convenient and secure financial services.

**Vision Blueprint:** Bank SinoPac upholds four core missions: ethics and decency, environmental sustainability, wealth building, and social responsibility. Through its commitment to net-zero, support for the green energy sector, expansion of sustainable financial products, and efforts to deepen climate awareness among stakeholders, it actively contributes to realizing the pledge of its parent company, SinoPac Financial Holdings, which is to achieve net-zero emissions in its own operations by 2030 and across its financial portfolios by 2050. These efforts reflect Bank SinoPac’s corporate vision: Together, a better life.

## La Vida Tec Co., Ltd.

**Sustainable Achievements:** Driven by its founding mission to eliminate health inequality, the WaCare team at La Vida Tec Co., Ltd. has spent nearly a decade expanding from technology innovation into social service. Through digital innovation, WaCare aims to close the healthcare gap in remote areas and realize the goal of “Digital Symbiosis, Health Equity.” Its WaCare Platform enables older adults and caregivers to access health information and professional health services regardless of location, offering ubiquitous, digitally enabled health services. These efforts align with SDG 3 (Good Health and Well-being), SDG 10 (Reduced Inequalities), and SDG 11 (Sustainable Cities and Communities).

**Award Highlights:** (1) Bridging urban-rural health gaps and enhancing long-term care in remote areas: WaCare has broken down barriers in healthcare access by establishing remote health services in



over 1,000 rural communities across 20 counties in Taiwan, improving elder care and providing more than 700,000 service interactions. It has also provided digital learning to over 16,000 care workers, addressing the lack of technical training resources in remote areas. (2) Digital companionship and social network support for caregivers: WaCare has built a large-scale digital support network for over 20,000 households with members requiring dementia care (about 7% of Taiwan's total) and 6,000 families with children receiving early autism intervention, offering online seminars to address challenges encountered during the course of care. During the pandemic, WaCare launched online health promotion services in response to the closure of community centers and public health measures that restricted older adults from leaving their homes. There were over 400,000 instances of remote participation by the elderly and their caregivers, demonstrating the resilience of digital health innovation.

**Vision Blueprint:** WaCare continues to host online briefings in collaboration with local governments and community recruitment efforts to expand services to areas in need. For each community, WaCare conducts site assessments and implements tailored health promotion programs. It is also developing an online toolkit based on its caregiver empowerment model and elder assessment framework, providing resources and building care worker competencies. WaCare remains committed to advancing "Digital Symbiosis," ensuring that families caring for the elderly, persons with disabilities, persons with mental health conditions, or special-needs children can access care services and health education in a borderless digital space so that support can reach every corner where needed.

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## Interplan Group

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**Sustainable Achievements:** In its environmental practices, Interplan Group is Taiwan's first exhibition company to use modular display systems, reducing exhibition-related waste and energy consumption by over 95% compared to traditional wooden exhibition booths. By renting storage space at major exhibition

centers for the booth modules, Interplan has also cut transportation-related carbon emissions by more than 90%. The Interplan24 3D Configurator is an online platform that demonstrates digital innovation in sustainable business modeling. In terms of social impact, Interplan is the only Taiwanese member of the OSPI (OCTANORM Service Partner International) network of modular display systems, with over 800 domestic and international exhibitors annually adopting its sustainable, energy-efficient solutions. Interplan collaborates with 34 upstream and downstream partners, including 10 long-term suppliers who have signed sustainability commitment agreements. In governance, the company fully implements ISO 20121 standards for workplace environmental safety, complying with 62 categories of regulations and requirements covering occupational health and safety, economic and labor conditions, insurance and worker benefits, customer expectations, and noise pollution control.

**Award Highlights:** (1) Sustainable digital exhibitions: The Interplan 3D Configurator online platform allows international and domestic exhibitors to select booth designs, calculate pricing, and place orders online, enabling on-demand design and promoting green exhibition practices. (2) TASS 2022 Asia-Pacific Forum and Exposition for Sustainability: Interplan used recyclable and eco-friendly green solutions, integrating innovative exhibition technologies to advance sustainability. (3) In 2023, Kaohsiung Exhibition Center established clear energy management goals and policies, earning certifications in ISO 14064:2018 for the quantification and reporting of greenhouse gas (GHG) emissions and ISO 50001:2018 for Energy Management Systems. The venue has fully adopted smart energy-saving equipment to enhance energy management.

**Vision Blueprint:** (1) Core sustainability: Interplan embeds sustainability as a core value, striving to achieve Diversity, Equity, and Inclusion (DEI) while actively pursuing international sustainability certifications. (2) Inspiring sustainability: As a key influencer in the exhibition ecosystem, Interplan publishes the bi-monthly Event Platform to communicate, advocate, and promote sustainability



across government, industry, academia, and research sectors. Looking ahead, Interplan will continue investing in innovative sustainable solutions, contributing to the advancement of SDGs in Taiwan's exhibition industry.

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## Allianz Taiwan Life Insurance Co., Ltd.

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**Sustainable Achievements:** Allianz Taiwan Life Insurance Co., Ltd. has established an ESG Committee, with the Board of Directors serving as the highest supervisory body. A board director who also serves as president acts as the convener, while another board director concurrently serving as chief financial officer assumes the role of executive director. The remaining committee members form an implementation team composed of senior managers from different departments. Its sustainability strategy focuses on three pillars: a green environment, social engagement, and corporate governance, with SDG 8 (Decent Work and Economic Growth), SDG 13 (Climate Action), and SDG 17 (Partnerships for the Goals) as its strategic anchors. In 2023, the company published its first Task Force on Climate-related Financial Disclosures (TCFD) report, outlining its processes for identifying climate risks and opportunities, conducting scenario analyses and stress testing, and setting climate-related metrics and targets.

**Award Highlights:** (1) Green environment: Allianz Taiwan Life is committed to low-carbon actions and is a participant in the RE100 initiative. In 2023, it became the first insurer in Taiwan to purchase renewable energy certificates, achieving 100% renewable electricity usage for its headquarters and corporate data center. It introduced a departmental travel mileage budgeting system to manage carbon emissions from business travel, replaced office air conditioning systems with energy-efficient units, and installed LED lighting with zoned controls. It has also driven digital transformation by promoting, in collaboration with partners, online policy purchase, claims processing, and policy changes. (2) Social engagement: Through educational programs,

Allianz Taiwan Life promotes financial literacy, environmental awareness, and circular economy concepts among youth. It supports the development of emerging athletes and sponsors microinsurance for underprivileged elderly individuals with dementia, raising funds for their care and promoting preventive health and chronic disease self-management to enhance public well-being. (3) Corporate governance: In line with Financial Supervisory Commission (FSC) guidelines, Allianz Taiwan Life continues to monitor its governance practices, strengthens its capacity to manage climate-related risks and opportunities, and allocates capital in line with government policies to drive sustainable investment.

**Vision Blueprint:** As a subsidiary of the leading EU-based sustainability-focused insurer, Allianz Taiwan Life is committed to promoting low-carbon initiatives in partnership with strategic allies. Under the framework of the EU Corporate Sustainability Due Diligence Directive, the company promotes supplier management and green procurement to mitigate climate change impacts. It remains fully committed to the RE100 goal of 100% use of renewable energy, and actively supports Taiwan's 2050 Net-Zero Transition policy. The company continues to expand its investment portfolio in strategic industries, public infrastructure, long-term care, and sustainability-linked bonds, contributing to the growth of sustainable finance and responsible investment in Taiwan.

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## Apollo Aquatic Product Co., Ltd.

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**Sustainable Achievements:** Apollo Aquatic Product Co., Ltd. has been recognized with the prestigious Ten Outstanding Farmers Award for its pioneering trophic chain aquaculture, which contributes to food security, hunger eradication, and sustainable agriculture. By cultivating aquatic plants and animals that actively sequester carbon, the company has validated its business model for more than seven years, attracting attention from agricultural agencies and enterprises worldwide. Located on a 3-hectare site in Tainan, its farm harnesses abundant wind, solar, and water



resources to achieve full green energy self-sufficiency. Looking ahead, Apollo plans to implement a microgrid system to transfer surplus stored energy to a seafood processing facility two kilometers away or to nearby communities.

**Award Highlights:** (1) Innovation in aquaculture: Trophic chain aquaculture, developed by the founder of Apollo, goes beyond traditional polyculture models that typically involve just two to three species. Instead, the process introduces 20 to 30 species into a single pond to achieve ecological balance, effectively replicating the ocean environment within the farm. The company has also pioneered the world’s only land-based monoculture oyster farming method, which enhances carbon sequestration, improves farming conditions, and boosts income. The pond has maintained ecological soil balance for seven years without requiring draining or sun-drying. Using ultra-high-density farming with nearly 18,000 kilograms of fish in just 0.6 hectares, species such as milkfish and sea bass are able to reproduce naturally. Summer water visibility can even reach up to 3 meters. This method has enabled Apollo to earn recognition as

one of Taiwan’s Ten Outstanding Farmers Award recipients and has been featured in hundreds of media outlets. (2) Energy sustainability: Apollo’s aquaculture method enables carbon capture in water, replacing energy-intensive traditional paddle wheels (735W) with 90W flow generators for full-cycle farming. The farm integrates wind and solar power with two 5kW energy storage units, achieving complete energy self-sufficiency.

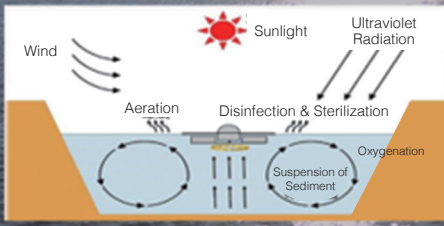
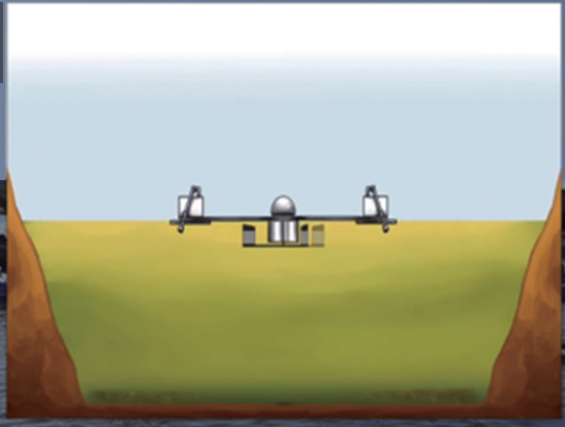
**Vision Blueprint:** Apollo is currently working with the Taiwan Research Institute on Water Resources and Agriculture to explore regulatory frameworks and implementation strategies for the use of self-generated electricity. Looking ahead, the company envisions a model of “self-generation for own use, with surplus power transferred to the grid.” This will enable Taiwan’s agricultural and aquacultural sectors to move beyond dependence on wholesale electricity purchases and explore a new path. The company is currently in negotiations with Palau, Indonesia, and Malaysia to deploy this system internationally. Apollo hopes this energy innovation will enable Taiwan’s agri-aquaculture sector to shine on the global stage.

## **FLOW GENERATOR**

# Operating Principle and Specifications

The motor drives a gearbox, which in turn rotates the blades to generate both horizontal and upward water flow

This agitation enhances the dispersion of organic matter, facilitating sterilization, decomposition, and aeration through sunlight and air exposure.

|                | Motor | Rotation speed | Current (A) | Dimension (mm) | Voltage (V)   | Weight (kg) | Effective Radius |
|----------------|-------|----------------|-------------|----------------|---------------|-------------|------------------|
| Flow Generator | 90W   | 4.7 rpm        | 0.5A        | 2120*755       | 3 phase, 220V | 60kg        | 30m radius       |

▲Figure 3-7 National Sustainable Development Award – Corporation Category Winner: Apollo Sustainable Aquaculture Co., Ltd. Its self-developed flow generator uses the difference in water levels to generate power



## HTC Corporation

**Sustainable Achievements:** HTC Corporation is the fifth company in Taiwan's high-tech hardware sector to have its net-zero targets approved by the Science Based Targets initiative (SBTi), with targets in line with the Paris Agreement to limit the temperature increase to 1.5°C. HTC earned the highest Leader rating in the Supplier Engagement Rating (SER) by CDP. In 2024, HTC utilized a cloud-based carbon management platform to complete and verify its greenhouse gas inventory for both parent and subsidiary companies in accordance with ISO 14064-1, and also calculated the product carbon footprint of its flagship VIVE XR Elite VR headset in accordance with ISO 14067. In doing so, it became the first company in Asia to achieve this via a sustainable cloud platform. HTC has also published standalone TCFD reports for two consecutive years. In 2024, the company received the highest "Benchmark Leader" rating from SGS Taiwan for its climate-related financial disclosures, along with formal certification recognizing its excellence in TCFD reporting.

**Award Highlights:** (1) HTC has developed a real-time carbon monitoring cloud platform and a supplier interface to drive emissions reduction across the value chain. (2) The company has introduced a user-replaceable battery module, enabling consumers to swap batteries by themselves and advancing sustainable product design. (3) The HTC U23 pro boasts a 91.75% material recycling rate, far exceeding the EU WEEE standard (55%). In addition, the VIVE XR Elite packaging uses 100% recyclable materials. (4) HTC has optimized the locations of its global logistics centers to reduce travel distance to air and sea ports, consolidate shipments, and minimize the number of delivery handovers to significantly lower carbon emissions. (5) Leveraging its VR expertise, it has collaborated with XRHealth and Nord-Space Aps to simulate microgravity environments and support astronaut mental health using VIVE Focus 3, the first VR device deployed in outer space.

**Vision Blueprint:** (1) HTC has formulated short-, medium-, and long-term carbon reduction targets, tracked via its carbon management platform. (2) It

is strengthening supplier engagement, using a "big leads small" model to promote net-zero goals across the supply chain. (3) HTC is embedding ESG into its brand through the VIVERSE vision, linking Humanity, Technology, and Imagination. (4) The company actively participates in global sustainability initiatives and ratings, keeping abreast of emerging international trends. (5) HTC promotes sustainability awareness within the company, fostering employee engagement in energy conservation and carbon reduction and embedding sustainability into its corporate DNA. (6) It is committed to transparent sustainability disclosure, aiming to enhance communication with stakeholders.

## Qisda Corporation

**Sustainable Achievements:** (1) In 2023, Qisda Corporation established a Sustainability Development Committee under its Board of Directors and adopted the Sustainable Development Best Practice Principles to review, coordinate, and advise on the company's SDG oversight. Senior executives from each department serve as ESG committee members, integrating SDG targets into departmental operations and conducting quarterly reviews. (2) Qisda conducts sustainability-related training, offering at least two tailored courses annually for employees and managers to apply sustainability in their roles. The company has also designed a Carbon Passport, built an ESG learning zone, and developed SDG-themed games to enhance employee awareness and encourage carbon reduction practices. (3) It actively engages suppliers in its sustainability policies and goals, promoting value chain sustainability through collaboration and dialogue. (4) Qisda participates in global and domestic initiatives such as SBTi, RE100, and IMV, driving SDG implementation from within.

**Award Highlights:** (1) Proactive innovation in healthcare: Leveraging its expertise in medical services, Qisda has hosted 90 community events to promote awareness in hearing health and distribute assistive hearing devices to elderly individuals, especially those in remote areas and those with



mobility challenges. The initiative aims to integrate smart solutions and medical data to address the shortage of specialists and reduce hearing-related health risks among seniors. (2) Biodiversity conservation: For over 15 years, Qisda has committed to land-friendly practices to protect biodiversity. In collaboration with the BenQ Foundation and local farmers, the company has conducted biological and soil surveys, demonstrating that sustainable contract farming plays a vital role in Taiwan's land conservation and agricultural resilience.

**Vision Blueprint:** Qisda's sustainability vision is to "realize the truth, goodness, and beauty of technology life." Guided by the principle of inclusivity and openness, the company showcases its cross-border, cross-regional, and cross-industry capabilities in smart technology and service delivery. By integrating AI technologies to empower industries, Qisda supports green transformation and leads enterprises toward sustainable development. The company focuses on healthcare innovation, aiming to solve everyday health challenges for consumers. From raw material selection and product design to manufacturing and application, Qisda continues to push boundaries in product development to deliver safer, more convenient solutions and unlock new possibilities for global healthcare.

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## MEAN WELL Enterprises Co., Ltd.

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**Sustainable Achievements:** MEAN WELL Enterprises Co., Ltd. has taken a transformative journey by revising its corporate goals and vision to align with sustainability. In 2021, the company integrated nine UN SDGs into its long-term development blueprint, establishing the SDG Group. This group actively drives initiatives across four areas: corporate governance, enterprise commitment, social engagement, and environmental sustainability. Through strategies of globalization, localization, lean management, and digitalization, MEAN WELL continues to innovate and improve its operational processes. Leveraging information technology as a catalyst, the company

promotes the SDG Industrial Value Network, advancing corporate sustainability and industry resilience.

**Award Highlights:** (1) MEAN WELL has launched 29 ESG-aligned companies, fostering investment partnerships that reflect SDG principles. (2) The company has voluntarily disclosed the carbon footprint of its power supply products and defined their life cycle boundary as cradle-to-gate, calculated in accordance with ISO 14067:2018. It has also supported 34 suppliers in completing their greenhouse gas inventories. (3) In its low-carbon transition, MEAN WELL focuses on high-voltage, energy storage/conservation power systems, and intelligent control technologies, building on existing technical know-how and ongoing R&D. (4) The company has developed the SDG SHARE+ app, a shared economy platform that connects suppliers, partners, and ESG stakeholders. (5) For 14 consecutive years, the company has organized the I Love Tamsui River public activity, initiating the Tamsui River Pact signed by 500 organizations, and founding Taiwan's first private-sector river patrol team, the MEAN WELL Water Environment Patrol.

**Vision Blueprint:** (1) MEAN WELL has launched a multi-approach carbon neutrality roadmap, targeting a 5% annual carbon reduction, 50% reduction by 2040, and net-zero by 2060. (2) From 2024 to 2026, the company will host the SDG Sustainability and Peace Touring Exhibition, expand the I Love Tamsui River campaign, and continue its efforts in river sustainability, patrol teams, and wetland adoption. These actions support water quality and biodiversity monitoring in Tamsui River, promoting the concept of shared watershed stewardship. (3) The company is expanding its global community care network, including a NT\$300 million donation to support the construction of LB07 Hall at National Taipei University, to be used by the Li Mei-shu Memorial Museum. (4) It remains committed to strengthening ESG investment collaboration among global industry partners, fostering shared prosperity and sustainable growth across sectors.



## Nan Ya Plastics Corporation Mailiao

**Sustainable Achievements:** (1) Improving energy efficiency and promoting AI and digital transformation: Promoting AI-driven upgrades and digitalization to enhance operational efficiency; (2) investing in new energy technologies, adopting low-carbon energy sources, and installing renewable energy infrastructure to carry out energy transition; (3) supporting local government efforts in food waste recycling by converting waste into fertilizer, creating a green regenerative supply chain; (4) improving water usage efficiency, reducing wastewater from production processes, and lowering customer air-conditioning energy consumption; (5) promoting shifts in employee work and lifestyle patterns while advancing community care initiatives.

**Award Highlights:** (1) Food waste recycling: Nan Ya Mailiao has developed an innovative waste-to-fertilizer technology that converts food waste into carbon-neutral organic fertilizer. (2) Public-private collaboration: Partnering with local governments to process household food waste and return the resulting organic fertilizer to local farmers free of charge, creating circular opportunities for the agricultural sector. Through PET bottle collection and shredding at 7-ELEVEN convenience stores, combined with recycled textiles and industrial rPET film, Nan Ya Mailiao uses polyester recovery technology to produce recycled polyester pellets, which are then transformed into various green products, establishing a regenerative circular supply chain.

**Vision Blueprint:** (1) Extending food waste processing from households to restaurants and produce markets; developing compost with enhanced beneficial microbes and promoting the use of organic fertilizers; strengthening environmental education for visitors; (2) launching the program to promote Taiwan's unique culture, connecting theater groups with rural communities and organizing senior summer camps with health education to promote healthy aging; (3) continuing efforts in low-carbon energy development, green electricity generation, and wastewater recycling;

(4) promoting full polyester recycling, including PET bottles, textiles, and industrial films, converting CO<sub>2</sub> from petrochemical processes into usable resources, and expanding the factory for electronic and industrial-grade liquid CO<sub>2</sub> production. By collaborating with clients to implement closed-loop systems, the company is transitioning from a material supplier to a provider of polyester recycling solutions to drive industry-wide greening. It is also collaborating with academia to develop carbon capture and forest carbon sink technologies.

## MacroHi Co., Ltd.

**Sustainable Achievements:** MacroHI Co., Ltd. became a Certified B Corporation in 2020 and successfully renewed its certification in 2023. Guided by the five impact areas of the B Corporation framework, MacroHI has systematically developed sustainability strategies and goals, embedding its Sustainability Declaration into its corporate charter. The company integrates stakeholder interests into both business operations and sustainability priorities. Each year, MacroHI hosts a sustainability consensus camp, aligning its ESG strategy with its core scalp care business while focusing on respite services and long-term support for education in the rural areas. The company has also taken a leadership role in the use of green energy, achieving a 56% reduction in carbon intensity in 2023 and becoming Taiwan's first carbon-neutral B Corp in the haircare sector in 2024.

**Award Highlights:** (1) Developing a scalp care ecosystem strategy to integrate sustainability into its core business; (2) implementing concrete carbon reduction actions, achieving a 56% decrease in Scope 1 and 2 emissions in 2023 compared to the 2022 baseline, and receiving third-party certified carbon neutrality in 2024; (3) earning Cradle to Cradle (C2C) Silver Certification and introducing braille packaging for visually impaired customers to promote information accessibility; (4) establishing the InnoVeg Lab Technology Research Center, applying green innovation principles to develop eco-friendly,



▲Figure 3-8 National Sustainable Development Award – Corporation Category Winner: MacroHI Co., Ltd. The company leverages its expertise in scalp care to support long-term educational outreach in rural communities

low-carbon products; (5) partnering with startups to introduce reusable shipping boxes and reduce single-use e-commerce packaging; (6) becoming a board member of the B Corp Beauty Coalition, contributing to sustainability standards and action plans involving raw materials, packaging, and logistics; (7) fostering a workplace culture of Diversity, Equity, and Inclusion (DEI); (8) adopting forest land and launching the Clean Mountains, Grow Trees campaign, linking environmental stewardship with scalp health awareness; (9) installing an internal carbon calculator and introducing the concept of shadow carbon pricing to guide decision-making.

**Vision Blueprint:** MacroHI’s sustainability commitment, “Inspire Lives. Brighten the World,” is rooted in its mission to address global scalp health challenges. The company uses the five B Corp impact areas and SDGs as its strategic foundation for sustainability, aiming to achieve net-zero emissions by 2030. Its medium- and long-term goals include maintaining organizational carbon neutrality annually, achieving carbon neutrality across all retail outlets, reducing organizational emissions by 90% by 2040, transitioning to 100% renewable energy, and ultimately reaching full net-zero within the organization.

## WNC Corp.

**Sustainable Achievements:** WNC Corp. has developed a comprehensive Sustainability Policy in line with global sustainability trends and its business needs, integrating environmental protection, social responsibility, and corporate governance into its operations and decision-making to enhance its competitiveness. Through initiatives formulated by the Sustainability Development Committee, Sustainability Center, and dedicated working groups and approved by the Board of Directors, the company has identified five SDG-aligned core themes: Green Initiatives, Empowerment, Trust, Innovation, and Growth. These guide the company’s short-, medium-, and long-term goals and action plans.

**Award Highlights:** (1) WNC actively participates in international initiatives such as SBTi, RE100, CDP, TCFD, and TNFD Forum, setting targets under SBTi to reduce Scope 1 and 2 emissions by 42% from 2022 levels by 2040 and Scope 3 emissions by 25% by 2023. (2) The company fosters a diverse and inclusive workplace, offering multilingual e-learning resources, cultural programs, international cuisine and group activities, flexible work hours, and leave policies exceeding legal requirements. (3) WNC collaborates across sectors to promote caring for children, caring for the land, and caring for smallholder farmers. The efforts include advancing science education, bridging the digital divide, and addressing the unequal distribution of resources in education. (4) In governance, the company promotes gender diversity within the board (33% of board members are female), conducts external board evaluations every three years, and performs annual internal assessments.

**Vision Blueprint:** WNC is building sustainable competitiveness by keeping abreast of global sustainability practices. To systematize carbon management, the company has developed a carbon emissions database for components and incorporated a mechanism for the selection of low-carbon materials. It is also increasing the use of recycled materials and packaging, optimizing low-carbon manufacturing processes, and designing products for ease of



disassembly, thereby reducing environmental impact across the product life cycle. Through supplier conferences and regular assessments, it supports supplier decarbonization to jointly create a sustainable supply chain. WNC will continue to strengthen stakeholder collaboration to generate positive environmental, social, and human outcomes.

## First Commercial Bank

**Sustainable Achievements:** First Commercial Bank is advancing low-carbon operations with its 37 green buildings, 25 solar-powered branches, and 12% of total electricity sourced from renewables. In addition, 55 employees have been recognized for outstanding carbon reduction performance. In social responsibility, First Bank has built a gender-equal and inclusive workplace, with female representation increasing and average salaries of female executives exceeding those of their male counterparts. The bank pioneered two days of paid fertility treatment leave and collaborates with customers, suppliers, and NGOs on public welfare initiatives, including food bank donations, rural medical outreach, and support for underserved communities, benefiting nearly 7,200 individuals. In governance, First Bank has established a core sustainability governance structure, promoting green financing to support industrial low-carbon transitions. By the end of 2023, a total of NT\$227.9 billion in green finance projects was approved.

**Award Highlights:** (1) First Bank launched its ESG Net-Zero Financing Program to leverage the influence of large enterprises in supporting smaller partners to jointly move toward sustainability. (2) To promote biodiversity and net-zero goals, the bank collaborates with clients to define nature-positive performance indicators through sustainability-linked credit projects. (3) It engages tenants of buildings owned by the bank to use green electricity and continues to expand renewable energy procurement and distribution. (4) It was the first to build a Green Finance Education Center and the ESG Sustainability Application Map, offering online and offline environmental education resources.

**Vision Blueprint:** (1) First Bank will continue strengthening the operations of the different functional committees under the Board of Directors and incorporating sustainability into governance. (2) Through sustainable finance, including investment, lending, products, operations, and services, the bank helps clients improve ESG performance, meet carbon reduction targets, and protect ecosystems. (3) It is optimizing its digital financial service interface, integrating Open API and digital offerings to realize the vision of "Finance is Life." (4) First Bank is cultivating a diverse, happy, healthy, and sustainable workplace culture, promoting digital and sustainable finance education, talent development, and retention strategies. It also integrates arts, sports, and social engagement to channel financial resources toward meaningful social impact.

## KGI Life Insurance Co., Ltd.

**Sustainable Achievements:** KGI Life Insurance Co., Ltd. leverages its core competencies and resources to promote four strategic pillars of sustainability: Low Carbon Transition, Inclusive Finance, Sustainable Finance, and Corporate Governance Enhancement. The company has set clear sustainability goals in line with both UN SDGs and Taiwan's national targets. Its efforts include: (1) aligning with international standards and further upgrading sustainable governance; (2) adopting proactive carbon issue actions in working toward a net-zero future; and (3) financial inclusion and treating customers fairly to fulfill social responsibilities.

**Award Highlights:** (1) KGI Life has established a climate governance mechanism to mitigate operational risks associated with climate change. On the investment side, it has implemented three major climate action strategies, including investing in renewable energy power plants, investing in green bonds, and engaging with high-emission industries. Through sustainable finance decision-making and capital allocation, KGI Life encourages and supports industrial decarbonization. It actively engages investees on carbon reduction and has set a goal to



achieve net-zero emissions across its entire investment portfolio by 2045. Notably, KGI Life became the first company globally to be certified under ISO 14097, the framework for assessing and reporting climate-related investment activities. (2) KGI Life has adopted ISO 14067 to assess the carbon footprint of its insurance services, identifying emission hotspots across its operations and establishing a baseline for future reduction. It has received a carbon label certificate from Taiwan's Ministry of Environment. The company is also upgrading outdated energy-intensive equipment, improving energy efficiency, installing solar panels, procuring green electricity, and acquiring carbon credits to implement green operations and carbon management.

**Vision Blueprint:** The core value of KGI Life lies in its excellence in asset-liability management, generating stable positive spreads while maintaining robust growth and profitability under sound governance and risk control. Under the leadership of its management team, KGI Life will continue to keep abreast of global sustainability trends, embedding ESG deeply into all aspects of life insurance operations. The company is committed to creating long-term, stable value for policyholders and stakeholders and to realizing its vision of becoming the most recommended and trusted life insurance company.

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## Fubon Life Insurance Co., Ltd.

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**Sustainable Achievements:** In line with Fubon Financial Holdings's four sustainability strategies of decarbonization, digitalization, encouragement, and connection, Fubon Life Insurance Co., Ltd. has also adopted low-carbon operations across its financial and insurance services. The company continues to obtain carbon footprint certifications for its insurance policies and has expanded its portfolio of e-insurance services. In 2024, it procured 1.8 million kWh of green electricity and actively invested in solar power generation facilities. Among the company-owned buildings across Taiwan, nine have received Green Building labels, and its headquarters, the Fubon Life Building, was

awarded LEED Gold certification by the U.S. Green Building Council. In addition, the company also guides industries and suppliers toward sustainable and low-carbon transformation with a steady increase in its green finance investments. In 2023, green investments reached a record high of NT\$1.9 trillion. The company also has adopted Science-Based Targets (SBTs) for its investment portfolio's net-zero transition and decarbonization strategy, and collaborates with Fubon Financial Holdings to promote engagement initiatives that encourage investees to address climate change.

**Award Highlights:** (1) In building an innovative insurance value chain, Fubon Life leads the industry in offering enhanced coverage for advanced medical treatments, including cardiac devices and proton therapy for cancer. It was also the first to offer a dedicated commercial SMS code "68999" to strengthen fraud prevention through technology. (2) In line with UN and international labor standards, the company revised its Human Rights Policy to establish a human rights due diligence investigation process. It also held human rights training courses totaling nearly 250,000 hours annually. It appointed female independent directors and implemented labor conditions and employee benefits that exceed legal requirements. (3) Using a public-private partnership, Fubon Life became the first insurer to conduct river waste investigations, covering five major watersheds: Tamsui River (Taipei/New Taipei), Wu River (Taichung), Touqian River (Hsinchu), Houjin River (Kaohsiung), and Beigang River (Yunlin). These efforts accelerated government clean-up operations and raised community awareness of river conservation.

**Vision Blueprint:** Guided by Fubon Financial Holdings' philosophy of positive energy, Fubon Life integrates both UN and Taiwan SDGs into its strategic development. It strives to fulfill its six environmental sustainability commitments of sustainable operations, climate adaptation, green procurement, green finance, environmental friendliness, and corporate philanthropy. It helps to strengthen social and environmental safety nets, cultivate future-ready talent, and enhance resilience in sustainability governance. Through comprehensive efforts across all areas of sustainable management, the company is advancing toward its



vision of becoming the premier life insurance brand in the Asian market.

## Faraday Technology Corporation

**Sustainable Achievements:** In line with its corporate sustainability vision to improve human welfare with technological innovation, Faraday Technology Corporation integrates Taiwan's SDGs and the national net-zero strategies to form the basis of the company's sustainability framework across five key areas: innovation management, partnership for prosperity, inclusive and supportive workplace, environmental sustainability, and social integration.

**Award Highlights:** (1) Core values driving innovation: Faraday's core strength lies in its comprehensive Silicon IP (Intellectual Property) portfolio that covers six major domains with over 4,000 IP components. Its highly efficient custom chip design services have yielded more than 3,000 successful system-level chip development cases. (2) Technology enabler for energy transition: The company has developed 2,350 low-power IP components, contributing to a product revenue share of 83.67% in energy transition products and smart applications. (3) Commitment to net-zero: Faraday collaborates with companies across its supply chain to implement net-zero targets and carbon reduction strategies, accelerating its green electricity adoption and taking a pioneering role in carbon credit deployment. It is the first ASIC design service company globally to support the TCFD (Task Force on Climate-related Financial Disclosures) and advocate for the TNFD (Taskforce on Nature-related Financial Disclosures). The company has invested NT\$140 million to stimulate sustainable finance and promote green industry development. (4) People-centered workplace and talent empowerment: Faraday received the 2022 National Talent Development Award in the Large Enterprise category as recognition of its commitment to employee growth. (5) Wellbeing and inclusion: The company offers competitive compensation, prioritizes physical and mental health of its employees, and fosters work-life balance and gender equity. Women hold 21% of

managerial roles, surpassing industry averages. In addition, its corporate fertility rate stands at 4.4%, well above the national average of 3.05%. (6) Collaboration with the academia: Through industry-academia partnerships, Faraday supports semiconductor talent cultivation, with 29% of annual hires being young graduates.

**Vision Blueprint:** Faraday remains committed to its founding vision: "Improve human welfare with technological innovation." In addressing the three pillars of ESG, the company integrates sustainability into its core operations and daily practices. Its structured sustainability framework ensures steady business growth, strengthens ESG performance across all dimensions, and fosters collaboration with stakeholders to create value.

## Winbond Electronics Corporation

**Sustainable Achievements:** Winbond Electronics Corporation is a global leader in semiconductor memory solutions. With oversight by the Board of Directors, it has established a ESG Committee, alongside a Risk Management Committee tasked with identifying and managing climate and non-financial risks. A Manager Training Committee was also formed to strengthen human capital and promote diversity and inclusion. The company has committed to achieving net-zero emissions by 2050, with interim targets including: (1) 50% reduction in direct emissions; (2) reduction in energy-related indirect emissions to save 2-3% of electricity annually; (3) afforestation and reforestation to remove carbon in the atmosphere; (4) carbon credit offsets estimated at 5% annually; (5) promoting a low-carbon value chain and targeting a 30% reduction in Scope 3 emissions by 2040.

**Award Highlights:** (1) Green product innovation: Winbond launched the world's first 1.2V NOR Flash, which consumes 45% less power than conventional 1.8V NOR Flash. It also optimized HyperRAM to operate at 1.2V, reducing power consumption by 33% compared to 1.8V versions. (2) Since 2021, the company has partnered with Taiwan's Forestry



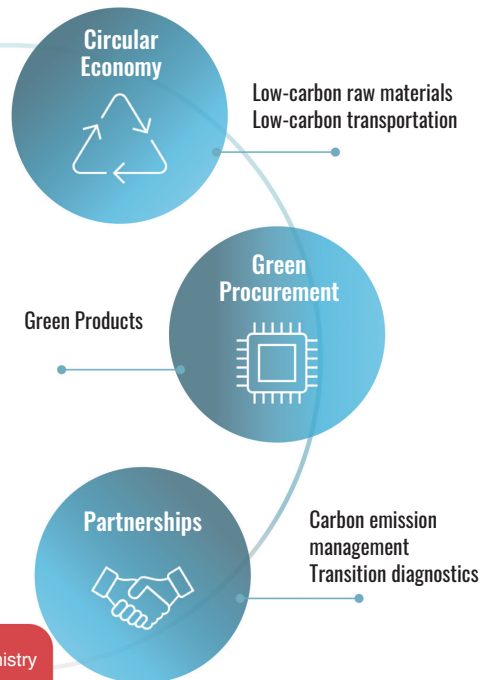
## ▶ “Large Leads Small” low-carbon transition initiative

**winbond**

Executed  
3 projects with  
13 partners



Recognized by the Ministry of Economic Affairs



▲ Figure 3-9 National Sustainable Development Award – Corporation Category Winner: Winbond Electronics Corporation. Winbond promotes a “large leads small” low-carbon transition initiative to support industry partners in building green supply chains

and Nature Conservation Agency and the National Property Administration to actively promote domestic afforestation and conservation. To date, these efforts have resulted in over 25 hectares of reforested and protected land, with plans to plant more than 40,000 trees. The company is also committed to the conservation and propagation of native Theaceae species. Of the 42 known Theaceae species in Taiwan, Winbond has collected and cultivated 27, including one classified as Critically Endangered, one as Endangered, five as Vulnerable, and three as Near Threatened according to the Red List. Additionally, the company has established a native wildflower garden, where the endangered orchid species *Spiranthes sinensis* has been successfully observed. (3) Winbond has been listed among Taiwan’s Top 100 High-Salary Companies for eight consecutive years and recognized by 1111 Job Bank as a Happy Enterprise. The company places strong emphasis on leadership diversity, with women holding 27% of board seats

and foreign nationals accounting for 17% of senior decision-making roles. In 2023, 44% of promoted employees were women, and standard compensation is offered without gender-based differentiation.

**Vision Blueprint:** On the environment, Winbond integrates its core competencies with sustainability goals in energy efficiency and carbon reduction. Through energy and emissions reduction, process optimization, green product design, and digitalization of information systems, the company fosters long-term, sustainable win-win partnerships with customers and suppliers. In society, the company continues to build a workplace grounded in human rights, dignity, and DEI, while investing in environmental sustainability and social inclusion. In governance, the company strengthens board oversight, enhances the value of sustainability, and improves the quantification and reporting of non-financial data to bolster compliance, transparency, and strategic insight.



## Shin Kong Financial Holding Co., Ltd.

**Sustainable Achievements:** For over 60 years, Shin Kong Financial Holding Co., Ltd. has pursued its sustainability vision of becoming the most trusted financial partner. Guided by its core values of “low carbon, innovation, and common good,” the company has developed a comprehensive sustainability strategy rooted in its core competencies. (1) Creating a sustainable governance framework: In 2018, Shin Kong FHC elevated its Corporate Sustainability Committee to a functional committee under the Board of Directors, strengthening oversight and accountability. The company has also formed six dedicated ESG task forces and established KPI indicators across each ESG dimension, enabling regular tracking to ensure the continuity and effectiveness of its sustainability operations. (2) Amplifying its impact in the value chain: Shin Kong FHC understands that while one may go fast alone, true progress in sustainability requires collective effort. For this reason, in addition to following Taiwan’s sustainability roadmap for listed companies and the 2050 net-zero emissions pathway, the company also leverages its core financial competencies to drive impact through its financial products and client services, investment and financing, sustainable supply chain management, and volunteer engagement. By working together with employees, clients, suppliers, and investee companies, the company mobilizes its value chain to advance economic prosperity, social welfare, and environmental sustainability.

**Award Highlights:** (1) Net-zero commitment: In February 2024, Shin Kong FHC received SBTi approval for its net-zero targets and continues to reduce emissions across operations and investment portfolios. (2) In addition to benefits and leave policies that exceed regulatory requirements, the company has introduced paid family care leave and fertility treatment leave to help employees achieve better work-life balance and foster a workplace rooted in diversity, equity, and inclusion (DEI). (3) Leveraging its volunteer network, the company promotes newspaper reading, street dance activities, and financial literacy in underserved rural areas, generating positive social

impact. (4) In 2023, the company earned the distinction of ranking second globally and first in Asia in the insurance category of the Dow Jones Sustainability World Index (DJSI World). The company was also selected for the first time as a constituent of the Dow Jones Sustainability Emerging Markets Index (DJSI Emerging Markets).

**Vision Blueprint:** (1) In 2023, Shin Kong FHC established a group-wide sustainability training framework focused on innovation, depth, and breadth. The goal is to offer tailored ESG education for board members, sustainability professionals, and all employees, embedding sustainability into the company’s DNA. (2) Leveraging its strong foundation in digital transformation, the company is committed to developing a broader range of sustainable products and services that enhance customer experience and offer more convenient, inclusive solutions tailored to diverse client needs. These efforts also aim to reduce geographic barriers and address inequalities faced by persons with disabilities in order to realize inclusive finance and a true “dual-axis transformation.” Looking ahead, Shin Kong FHC will continue to embody the spirit of SDG 17 by deepening collaboration with government, industry, NGOs, and value chain partners. Through its corporate sustainability commitments of “low carbon, innovation, and common good,” the company will strategically deploy its resources and core competencies to contribute to a more sustainable society and planet.

## United Daily News Co., Ltd.

**Sustainable Achievements:** (1) United Daily News Co., Ltd. has established a Sustainability Committee and a dedicated Sustainability Office to drive company-wide sustainability efforts through top-down leadership. (2) The company maintains a near 1:1 gender ratio among employees, with 153 women in managerial roles. The CEO, President, Vice President, and Editor-in-Chief are all women. Internally, the company promotes sexual harassment prevention and fosters a respectful, inclusive workplace. (3)



Through its internal online platform, the company fosters awareness and encourages staff participation in sustainability initiatives. (4) Leveraging its strength in storytelling, UDN launched the Sunshine Action special report series to spotlight sustainability issues. (5) By publishing the campus newspaper Good Reading Weekly, UDN aligns its reporting with the UN SDGs, helping students cultivate sustainability awareness. (6) Since 2022, the company has prioritized the purchase of products with eco-label certification. (7) In 2023, electricity usage was reduced by 161,000 kWh compared to the previous year, cutting carbon emissions by 80,822 kg. Rainwater harvesting totaled 3,703 kWh equivalent, reducing emissions by 555 kg; raft foundation water recycling reached 6,144 kWh equivalent, reducing emissions by 922 kg. (8) Solar panels were installed on the rooftops of the Linkou and Kaohsiung printing plants and the Hsichih headquarters building, supporting Taiwan's green energy policy while also improving insulation and waterproofing. (9) Since 2023, UDN has proactively engaged with local offices in Zhangshu and Zhongxiao neighborhoods of Hsichih District, New Taipei City. It has organized workshops for local residents, focused on the themes of long-term care, mobile photography, mobile payments, and fraud prevention. These efforts demonstrate UDN's commitment to the local community to achieve shared prosperity.

**Award Highlights:** (1) UDN arranges site visits for senior management to leading sustainability-driven companies, facilitating benchmarking and best-practice learning. Executives from these companies are also invited to give talks that introduce and reinforce sustainability concepts across the organization. (2) The company launched the Positive Change Award to encourage departments across the media group to engage in environmental sustainability work. It also organized community-based environmental education programs to strengthen interaction with local residents and neighborhoods. (3) Each year, UDN assigns journalists to cover major climate summits. In 2024, reporters traveled to Busan, South Korea to cover the Global Plastics Summit, and expanded coverage of the Biodiversity Conference held in Cali, Colombia, to provide readers with a more

comprehensive understanding of sustainability issues. (4) The Economic Daily News launched a dedicated section for small and medium-sized enterprises (SMEs), featuring in-depth reporting on successful cases of corporate environmental education and carbon reduction. The section also provides updates on government decarbonization initiatives to support SMEs in achieving a just transition. (5) To reduce paper consumption and support environmental sustainability, both UDN and Economic Daily News have introduced paid digital editions, gradually guiding print readers toward digital formats. Future plans include collaboration with display panel manufacturers to replace printed newspapers with e-paper, thereby reducing deforestation and carbon emissions.

**Vision Blueprint:** (1) The UDN group is gradually migrating its server to the cloud to reduce electricity consumption from on-site server rooms and air conditioning systems, thereby lowering carbon emissions. (2) The company is phasing out its fuel-powered service vehicles and replacing them with leased electric vehicles. (3) The designated smoking area has been relocated from the first-floor corridor to the rooftop, reducing air conditioning demand and transforming the building into a "breathing structure." (4) A wastewater recycling system has been installed at the Hsichih headquarters to reclaim and reuse water from washing operations. (5) A dedicated sustainability section has been launched to regularly report on government net-zero policies and carbon reduction progress. The aim is to promote low-carbon lifestyles and guide readers toward greener living habits. (6) Environmental journalism and oversight: Through investigative reporting, analysis, and commentary by professional environmental journalists and scientists, the company exposes facts about pollution and ecological degradation. These efforts aim to mobilize government, industry, and the public to participate in environmental protection, monitor policy implementation, and environmental governance and sustainable development.



## General Interface Solution (GIS) Holding Limited

**Sustainable Achievements:** General Interface Solution Holding Limited upholds its core values of Innovation, Professionalism, Initiative, and Accountability. At the corporate governance level, it has established a dedicated ESG website to strengthen communication and advocacy with stakeholders. According to the 2023 Corporate Governance Evaluation, GIS ranked among the top 5% of listed companies in Taiwan. At the national sustainability level, GIS follows the government's net-zero carbon roadmap by actively investing in green energy companies through fund participation and equity holdings. These efforts aim to enhance Taiwan's renewable energy capacity and contribute to the development of a smarter, more sustainable society. At the corporate sustainability level, GIS has installed solar photovoltaic systems across its facilities, integrating green electricity into operations with an annual generation capacity of approximately 3 GWh. The company conducts regular carbon inventories for its organization and products, and extends these assessments to upstream and downstream partners to foster shared value. Guided by a people-centered philosophy, GIS recognizes employees as key drivers of growth. It provides comprehensive training programs to cultivate a talent pool for the optoelectronics industry. In society, GIS collaborates with the GIS Foundation to encourage active employee participation in long-term charitable initiatives, including donation drives and holiday gift programs for disadvantaged children to promote social inclusion and community cohesion.

**Award Highlights:** (1) GIS has received official validation by the Science Based Targets initiative (SBTi) and continues to participate in the Carbon Disclosure Project (CDP). It reports having achieved a Leadership Level in CDP's Supplier Engagement Rating (SER) and a Management Level in its Climate Change assessment. GIS published its first TCFD report, which was verified by the British Standards Institution (BSI) and awarded the highest rating: Level 5+: Excellence. In addition,

GIS also received UL2799 Gold-Level Certification for achieving zero waste to landfill. (2) GIS maintains the validity of its ISO 50001 Energy Management System certification through annual surveillance audits. Across its facilities, a total of 44 energy-saving projects have been implemented, resulting in electricity savings of 12.96 million kWh (approximately 46,667 GJ) and an estimated reduction of 7,293 tCO<sub>2</sub>e in greenhouse gas emissions. (3) To reduce process wastewater and enhance water reuse, GIS has earned the Badge of Accredited Healthy Workplace from the Health Promotion Administration. The company promotes a smoke-free workplace, conducts health education campaigns, and organizes monthly Vegetarian Day initiatives to foster employee well-being. (4) GIS received the Silver Certificate under the Responsible Business Alliance (RBA) Validated Assessment Program (VAP). Within the company, women account for 39% of the total workforce and 51% of management roles. Filipino migrant workers represent 0.2% of total personnel, and all foreign workers receive equal treatment as domestic employees. GIS also has prayer rooms and anonymous feedback channels, and persons with disabilities comprise 1.3% of the workforce. The company also offers support to employees through regular care-focused dialogues and outreach activities.

**Vision Blueprint:** (1) GIS places human rights at the center of its engagement with its employees worldwide, customers, and suppliers. It applies the principles of the UN Global Compact, the Responsible Business Alliance (RBA) Code of Conduct, and relevant local laws and regulations as its foundational framework. The company is committed to fair treatment and respect for individual differences, and actively promotes a friendly and inclusive workplace through regular employee engagement surveys and continuous improvement of internal policies and benefits. (2) The company continues to participate in international sustainability initiatives and performance evaluations while strengthening stakeholder dialogue across its supply chain. It is implementing its near-term targets under the Science Based Targets initiative (SBTi), advancing its decarbonization roadmap, and leveraging its position to support smaller partners to drive collective carbon



reduction and net-zero transition across the value chain. (3) The company prioritizes long-term public welfare initiatives, providing localized community support through its foundation and promoting diversity and inclusion through sustained outreach.



## Civic Organizations

### Taiwan Homemakers United Consumers Co-op

**Sustainable Achievements:** Focused on food safety and green consumption, the Taiwan Homemakers United Consumers Co-op has, for over 30 years, brought together more than 80,000 households to support local producers by purchasing their produce at fair prices. The Co-op makes available safe, healthy, and eco-friendly daily necessities, putting ESG principles into practice in everyday life. It has launched an initiative for the repeated use of mesh bags for fruits and vegetables, achieving an average recovery rate of 62.5% and reducing plastic usage by approximately 6,355 kilograms. For its initiative to reprocess old plastic bags into new ones for reuse, the recovery rate reached 9.6%. For its program to recover and make use of produce damaged and discarded during transport and delivery, 95% of the discarded items were redirected for appropriate use, with losses accounting for only 0.2% of total incoming volume. To reduce plastic use starting at the source, the Co-op, as part of an experimental circular economy initiative, also collected discarded No. 2 and No. 5 plastic bottles for processing into recycled plastic pellets and remanufacturing into new containers. The initiative won the Buying Power special award in 2020 for its socially innovative product. In 2023, its eco-friendly laundry detergent, packaged in bottles made from 100% recycled plastic, reduced virgin plastic usage by 489 kilograms. In 2024, the Co-op became

a member of the international “4 per 1000” initiative, aligning its agricultural practices with international climate action. It conducted transactions directly with 244 farmers across Taiwan, supporting the cultivation of 890 hectares of farmland. The Co-op also expanded its vegetable nitrate monitoring program, partnering with academic institutions to systematically assess soil health and quality to ensure the long-term sustainability of local agriculture. In addition, the Co-op promoted planned consumption and production, offering whole-food utilization and zero-waste products. Its product development incorporated plastic reduction at the source to minimize packaging and waste. From 2021 to 2023, it reduced plastic use by a total of 52.35 metric tons. It also installed and promoted automated refill stations for laundry detergent and, in 2023, reduced plastic use by over 200 kilograms.

**Award Highlights:** (1) Through the resources jointly generated by its members and by restricting surplus allocation and using a public welfare fund system, the Co-op supports sustainability projects of registered non-profit organizations, private organizations, and local communities. It also allocates resources in advance to support farmers and producers facing unforeseen emergencies, reinforcing its commitment to social development. As of 2023, the Co-op had supported 304 projects aligned with core SDG targets, with total funding exceeding NT\$39 million. (2) Through its Green Advocacy monthly magazine, video platform, and podcast, the Co-op communicates responsible production and consumption practices. It discloses its progress in circular economy and plastic reduction, sharing these outcomes with members and the broader public to encourage widespread participation in sustainability action. (3) All 55 Co-op locations across Taiwan are equipped with shared-learning kitchens and universal design features, creating inclusive spaces where the young and old come together to share food cultures and explore sustainability topics. These kitchens also serve as welcoming environments to help new parents gain confidence in cooking and as community hubs for education on emotional well-being and green lifestyle. In 2023, the Co-op hosted 3,247 activities, including cooking workshops, farmer meetups, outdoor visits, lectures, and community events.



**Vision Blueprint:** (1) Expanding the area covered by environmentally friendly farming practices: The Co-op uses seasonal pricing schemes for winter and summer harvests to ensure stable income for farmers. With predictable earnings, farmers can plant with confidence. This approach encourages more farmers to adopt sustainable practices and invites more consumers to support sustainable agriculture in Taiwan. (2) Increasing food self-sufficiency and supporting domestic farmers: The Co-op produces video and digital content to introduce the growing sites to its members and consumers to further the sustainable development of Taiwan's local agricultural sector. (3) Expanding planned consumption and production to reduce food waste: The Co-op achieved a low loss rate of just 4.8%, with only 5% of that, equivalent to 0.2% of the total procurement, entering the waste processing systems because it could no longer be safely reused or repurposed. The Co-op continues to develop supportive product lines to absorb surplus or irregular produce, while expanding member recruitment and offering educational programs to raise awareness of food conservation. (4) Community education and engagement: Awareness campaigns and engagement have been the Co-op's focus and the cradle of its green consumption advocacy. Through workshops, lectures, and community events, it fosters member and public support for sustainable consumption and advances a shared vision of sustainable development.

## Dalin Tzu Chi Hospital, Buddhist Tzu Chi Medical Foundation

**Sustainable Achievements:** (1) The Dalin Tzu Chi Hospital, operated by the Buddhist Tzu Chi Medical Foundation, has installed solar panels and energy-saving equipment. It incorporates natural lighting and rooftop gardens to reduce heat and conserve energy, and it regularly replaces outdated systems to improve energy efficiency. (2) The hospital promotes healthy plant-based diets by offering a wide range of vegetarian meals and subsidizing vegetarian buffets for staff. It also avoids the use of single-use tableware and does not provide plastic straws, thereby

reducing carbon emissions associated with food services. (3) Water resource management: To reduce the consumption of fresh water, the hospital has installed a greywater recycling system, repurposing reclaimed water for toilet flushing and irrigation. (4) The hospital has replaced its central chiller and relevant equipment to improve energy efficiency and reduce Scope 2 carbon emissions. (5) It has also planted a wide variety of trees and shrubs across the hospital campus to preserve biodiversity and protect native species. (6) To reduce carbon emissions, it provides shuttle bus services to discourage the use of private vehicles. It also cultivates domestic and international sustainability partnerships by actively participating in COP conferences, Healthcare Without Harm, and the International HPH Network to exchange knowledge and best practices. (7) In response to domestic, international, and community-level disasters, the hospital provides emergency relief tailored to local needs, including meal distribution, free clinics, and the provision of essential supplies. (8) The hospital promotes environmental awareness through designated recycling zones and organizes ongoing awareness campaigns on waste sorting and sustainability.

**Award Highlights:** (1) Dalin Tzu Chi Hospital actively promotes green building and energy-saving measures to reduce carbon emissions. Initiatives include the installation of permeable interlocking pavers to protect groundwater resources, solar panels and energy-efficient systems, as well as using natural lighting and rooftop gardens to lower energy consumption. The hospital has also installed a greywater recycling system, reclaiming over 85,000 metric tons of water annually for toilet flushing and irrigation. (2) To improve healthcare accessibility for residents in remote areas, there are 23 shuttle bus routes to the hospital. It also conducts regular mobile medical outreach to underserved communities. Since 2002, the hospital has provided ongoing health screenings and medical services in the Alishan region, safeguarding the health and well-being of indigenous populations. (3) The hospital actively promotes vegetarian meals, serving over 650,000 plant-based meals in 2023. This initiative supports public health



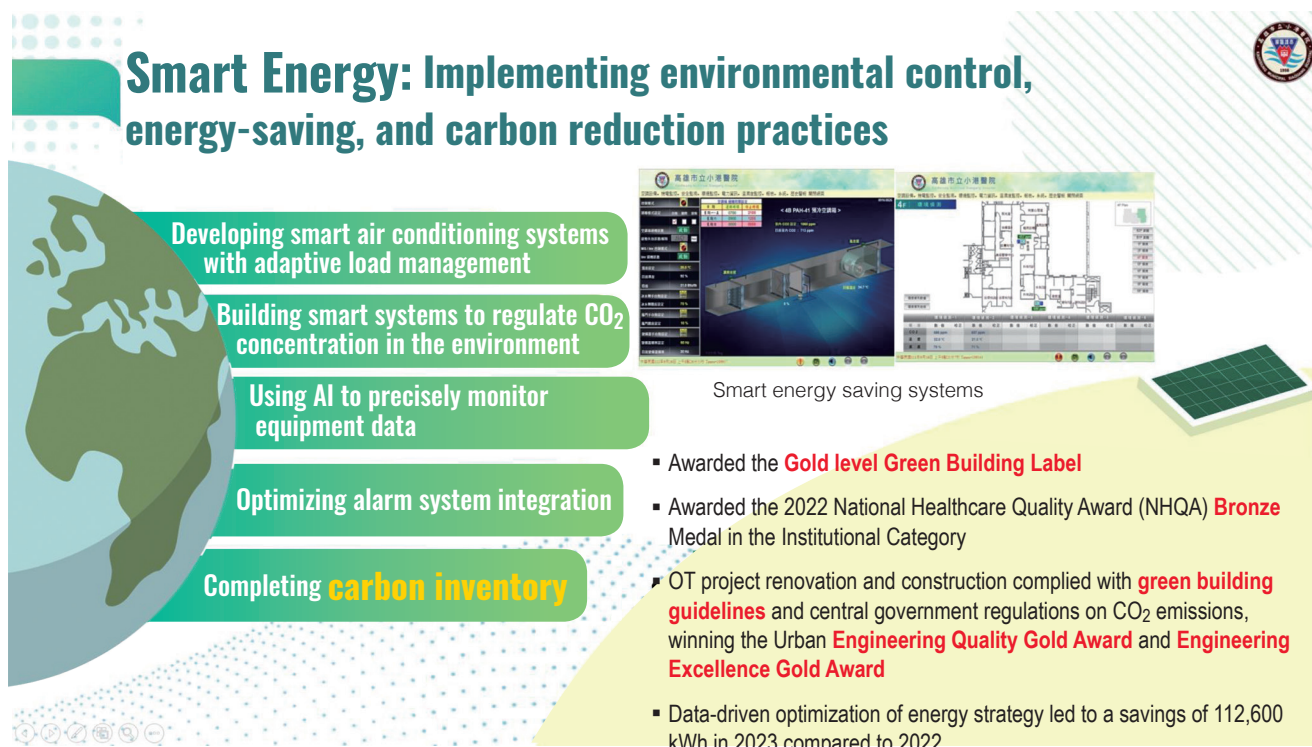
and significantly reduces carbon emissions. The daily vegetarian meals lower carbon emission by approximately 1,440 kilograms. (4) By implementing a carbon and energy management system in line with ISO 50001, the hospital has significantly improved energy efficiency. It also reduces the environmental impact of transportation by encouraging the public to use its shuttle bus services that connect to Taiwan Rail system to reduce the use of private vehicles.

**Vision Blueprint:** (1) Dalin Tzu Chi Hospital promotes green living to reduce pollution and lower carbon emissions, thus contributing to a healthier environment. Initiatives such as energy conservation and plant-based meal programs help reduce the hospital's carbon footprint while improving the health of staff and patients. Through resource recycling, minimizing single-use items, and advancing environmental education, the hospital fosters sustainable production and consumption practices. By reducing energy use and encouraging green transportation, it effectively lowers greenhouse gas emissions and directly contributes to climate change mitigation. (2) Expanding access to community and remote healthcare services: Community healthcare and telemedicine services enhance healthcare accessibility in remote and underserved regions, allowing more individuals to receive timely, high-quality medical care and thereby reducing disease burden and mortality rates. Telemedicine enables residents in rural areas to access professional medical advice, helping to narrow the urban-rural gap in healthcare resource distribution. (3) Promoting community and workplace health: The hospital advances community wellness through regular health screenings and education programs that help prevent chronic diseases and support well-being across all age groups. Workplace health initiatives aim to reduce job-related stress and enhance overall productivity.

## Kaohsiung Municipal Siaogang Hospital (Operated by the Kaohsiung Medical University)

**Sustainable Achievements:** In line with global trends and Taiwan's 2050 net-zero commitment, the Kaohsiung Municipal Siaogang Hospital follows the Taiwan SDGs and the Ministry of Health and Welfare's low-carbon hospital framework, taking actions in eight key domains: leadership, chemicals, waste, energy, water, transportation, food, and buildings. The hospital engages eight major stakeholder groups, namely: accreditation bodies, government agencies, the hospital board and affiliated institutions, employees, medical partners, patients and families, suppliers and contractors, and the broader community, to collaboratively shape its Net Zero Carbon Roadmap, which includes short-, medium-, and long-term strategies. To advance its vision of a sustainable, low-carbon hospital, Siaogang Hospital has launched eight carbon-reduction strategies in healthcare delivery: (1) greenhouse gas inventory, (2) energy efficiency optimization, (3) waste reduction, (4) sustainable procurement, (5) promoting green transportation, (6) ESG education for staff, (7) low-carbon healthcare, and (8) climate-resilient health protection.

**Award Highlights:** In environmental protection, the hospital integrates technologies across different disciplines to address environment-related health issues, using AI, big data, and satellite monitoring to safeguard respiratory health. It also launched Taiwan's first AI-driven pulmonary health clinic to analyze the link between air pollution and disease. To promote environmental education, it developed health-themed board games (e.g., Breath Battle), published educational materials, and issued a policy white paper on air pollution and health. This initiative earned a Silver Medal from the SNQ National Quality Certification for its campaign "Anti-Smoking & Anti-Smog: Health Promotion and Environmental Education under Air Pollution." In addition, the hospital is the first medical institution in Taiwan certified by TAF under ISO 14064-1 and the first nationwide to receive the Bronze Net Zero Label awarded by the Taiwan Alliance for



▲Figure 3-10 National Sustainable Development Award – Civic Organizations Category Winner: Kaohsiung Municipal Siaogang Hospital. Harnessing AI and other advanced technologies to build an intelligent energy management system, the hospital is pioneering a sustainable, low-carbon healthcare model

Net Zero Emissions. To promote healthcare equity and break down barriers to care, the hospital launched the “I Care” outreach program to support underprivileged patients through inclusive community-based health services. It also pioneered health care services for indigenous populations in urban areas via the Naruwan Cultural Health Station. By leading collaboration among professionals to restore patients’ swallowing function and quality of life, the hospital earned a Silver SNQ Medal and established itself as a model hospital for dignified, tube-free living. In hospital governance, Siaogang Hospital integrates lean management with smart healthcare, embedding digital transformation into its ESG strategies. It has received multiple honors, including the Sustainability Reporting Awards (Gold/Silver in the Hospital Category), the National Healthcare Quality Award in Smart Healthcare, the 9th Smart City Innovation Application Award, and the TSAA Innovation Leadership Award. In 2023, it won the Harvard Business Review Digital Transformation Award. These accolades reflect the hospital’s balanced implementation of SDG-aligned strategies and its

widespread recognition by domestic and international institutions.

**Vision Blueprint:** Kaohsiung Municipal Siaogang Hospital is committed to achieving net-zero emissions by 2050. To realize this goal, the hospital has developed a climate strategy roadmap and has embedded sustainability into its operations and medical practices to enhance healthcare resilience and value. In 2022, the hospital established an ESG Action Office under the leadership of its president, with a mission to exert its social impact and promote sustainable healthcare. The office comprises five working groups: Environmental Protection, Happy Workplace, Social Inclusion, Hospital Governance, and Medical Excellence. Through a hospital-wide mobilization to cultivate a green culture, it seeks to transform challenges into opportunities for organizational growth, balancing medical service delivery with carbon reduction and shifting employee mindsets. The hospital not only continues to pursue its net-zero targets but also contributes to global nature-positive goals through innovative medical services and



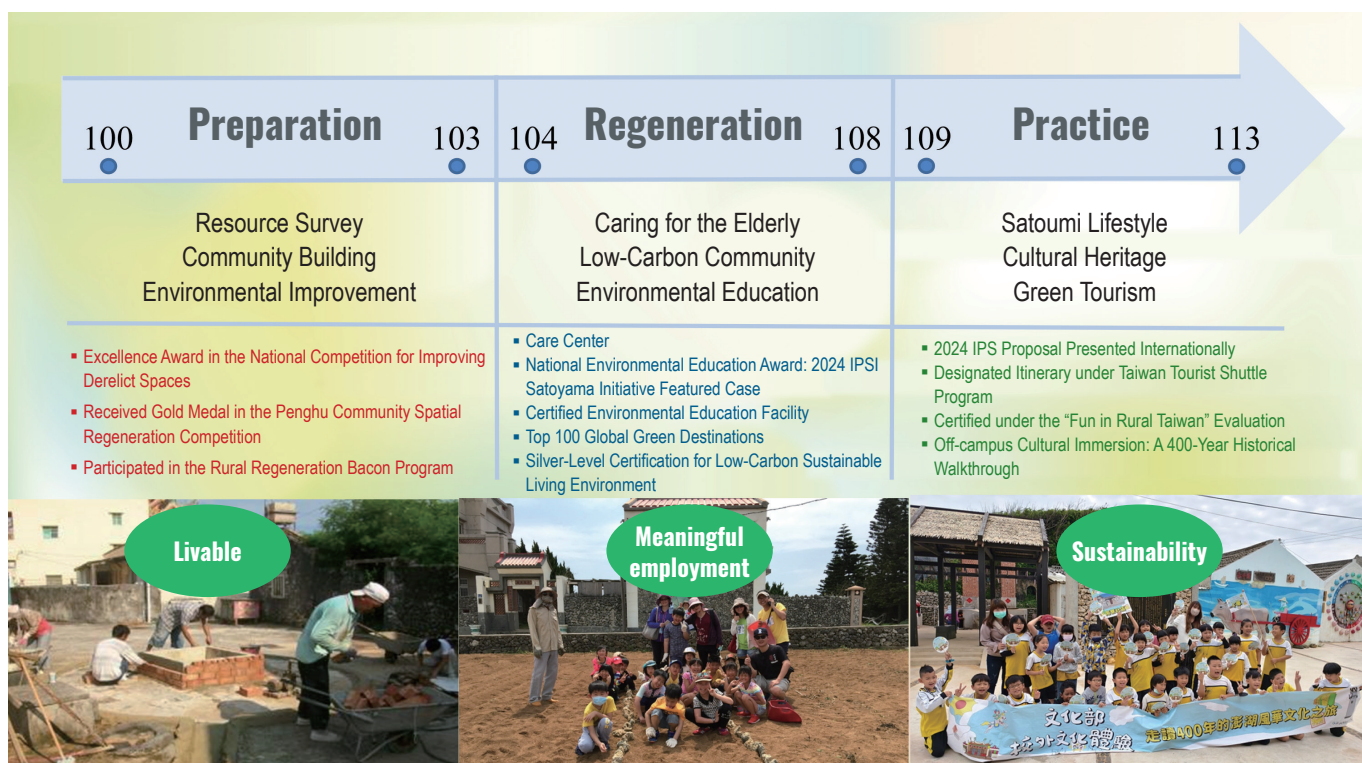
operational strategies. By embedding sustainability into its brand identity, integrating internal and external resources, and collaborating closely with stakeholders, the hospital is actively building a net-zero value chain that delivers long-term returns and greater value for patients and all stakeholders.

## Nanliao Community Development Association, Penghu County Huxi Township

**Sustainable Achievements:** The Nanliao Community Development Association promotes sustainable development through a range of initiatives that reflect an overall consideration of the environment, society, and economy. To preserve cultural heritage, the Association has launched a series of experiential programs, such as traditional headscarf wrapping and silvergrass weaving, that showcase local customs and pass on ancestral wisdom. It has

also revived traditional fishing practices, such as the use of stone weirs and pole-net fishing, and restored heritage cooking stoves. By incorporating natural materials such as cow dung bricks and white leadtree, it promotes a circular, low-carbon lifestyle and strengthens environmental awareness among local residents. In environmental education, the Association has established a multifunctional learning park that integrates the environment and local culture. Marine debris is repurposed into art installations, enhancing the community’s visual landscape and attracting visitors. It also prioritizes low-carbon, toxin-free agriculture, using ancient well water for irrigation and promoting eco-friendly farming practices. Its commitment to green tourism has stimulated local economic development, benefiting nearby shops, restaurants, and agricultural producers through a virtuous cycle of visitor-driven growth.

**Award Highlights:** One of Nanliao Community’s standout innovations is its art initiative using marine debris, which transforms discarded buoys collected from local beaches into creative artworks. This not



▲ Figure 3-11 National Sustainable Development Award – Civic Organizations Category Winner: Nanliao Community Development Association. By harnessing local cultural heritage and circular resource practices, the community has built a model of sustainable green tourism



only reduces ocean waste but also enhances the community's visual landscape, turning these artworks into key attractions for green tourism. The community has also established a coral stone bank, where residents can pick stone materials salvaged from demolition or renovation for reuse. This approach lowers construction costs, promotes circular use of resources, and enhances overall sustainability. In promoting green tourism, the community has made notable strides by integrating natural scenery with local cultural experiences. Residents are trained as tour guides to share community stories, deepening visitors' understanding of Nanliao's history and heritage. In addition, the community's environmental education programs cover topics such as ecological conservation, sustainable agriculture, and cultural preservation. These classes introduce schoolchildren to traditional knowledge and environmental values, cultivating their sustainability-oriented thinking and appreciation for local culture from an early age.

**Vision Blueprint:** Nanliao aims to build a sustainable community that is livable, a good place to work, and welcoming to visitors. It is committed to cultivating a clean and beautiful environment, fostering neighborly bonds, and creating a supportive and harmonious society that enhances residents' quality of life and overall well-being. A key initiative is the proposed "Shared Blessings" central kitchen, which would expand communal dining services by providing healthy, nutritious meals for the elderly, fostering warmth and care, and enabling aging in place. The community is also working to create diverse employment opportunities to encourage young people to return and contribute to local development. Through training and support from businesses, the young people are encouraged to apply their skills in revitalizing the community, helping every resident feel a sense of hope and a future rooted in the land, while preserving and helping to innovate the local culture. Nanliao further envisions integrating the neighboring villages of Beiliao, Hudong, and Huxi into a broader regional initiative. Focused on green tourism, this effort will showcase Penghu's traditional way of life through agriculture, fisheries, and natural ecology, forming a collaborative and sustainable green tourism network.

## Shuang Ho Hospital, Ministry of Health and Welfare (Operated by the Taipei Medical University)

**Sustainable Achievements:** Phase I - Organizational restructuring: As a pioneer among medical institutions, Shuang Ho Hospital has established a dedicated Sustainability Office and Sustainability Development Committee, with assigned personnel and independent budgeting to carry out sustainability initiatives. The hospital adopted international certification frameworks and has successively obtained certifications, including ISO 14064-1 for greenhouse gas inventory, ISO 50001 for energy management, ISO 14067 for carbon footprint disclosure in health screening services, and third-party assurance for its ESG report. Its sustainability roadmap defines five core roles in line with 10 SDGs and includes short-, medium-, and long-term plans. In 2023, all 20 short-term key performance indicators were successfully met. Phase II - Cultivating a sustainability culture: The hospital promotes sustainability awareness through monthly executive meetings, in-house publications, and external advocacy campaigns such as Earth Day, talent development, and sustainable healthcare. It has also developed a tiered sustainability talent development framework, offering personalized training to all staff from new hires to senior leadership. Phase III - Innovative practice: On the environmental front, the hospital advances four strategic transitions (energy, healthcare, digital, and lifestyle), underpinned by two governance pillars: smart healthcare and climate resilience. These guide carbon reduction projects within its core medical operations. On the social front, initiatives include workplace well-being, social impact, and international medical outreach.

**Award Highlights:** (1) Integrating medical and digital transformation to build a net-zero care center: The Kidney Care Center reduces labor demands and enhances treatment outcomes through disease prevention, digital transformation, low-carbon medical practices, and carbon emissions management. The hospital has also taken steps to reduce wastewater and conserve water. In 2023, it recycled 62.4 metric



tons of used dialyzers and reclaimed 33.12 million liters of reverse osmosis process water, significantly reducing medical waste and optimizing water use in clinical operations. An automated monitoring system was developed to optimize dialysis operations. As a result, the average lifespan of the filters increased by 5 hours, and the clotting rate of dialyzers was reduced by 10%. The Pulmonary Recovery Center uses telehealth to reduce the need for transportation and improve quality of care, resulting in a 28% drop in acute exacerbations. It also developed a lung recovery device with replaceable filter pads, cutting monthly waste by 1.2 metric tons. Preference for low-carbon medications led to a reduction in the use of greenhouse gas-emitting inhalers from 70.7% to 60.6%, effectively lowering CO<sub>2</sub>e emissions by 823.8 metric tons over five years. (2) Taiwan's first carbon footprint certification for medical services: The hospital's health screening services received ISO 14067 carbon footprint verification. Based on audit findings, targeted energy-saving projects were implemented, resulting in a 6.3% reduction in electricity consumption by September 2024. The hospital is thus able to deliver high-quality screenings with reduced environmental impact. (3) Taiwan's first eco-friendly trash bags made from recycled medical waste: In 2023, the hospital recycled 187.1 kilograms of medication bottles to produce 4,099 rolls of trash bags made from 100% recycled material, certified with an eco-label. In 2024, it expanded its recycling efforts to repurpose medical plastic waste into in-hospital items such as traffic cones, branded pens, and sharps disposal containers.

**Vision Blueprint:** (1) For improved governance and to strengthen climate adaptation, the hospital has developed contingency measures for disasters triggered by extreme weather, including typhoons, floods, droughts, and power outages. It also conducts risk assessments, strategic planning, and simulation drills for heat-related illnesses and supply chain disruptions affecting medical resources. These efforts ensure that backup systems are in place to maintain uninterrupted healthcare services during emergencies. (2) The hospital uses a pragmatic and rigorous approach in the face of environmental issues. It continues to advance low-carbon healthcare across its

core medical operations. It has implemented energy-saving, water-conservation, and waste-reduction measures, integrating smart systems to optimize resource efficiency. Building on this foundation, the hospital is also channeling its R&D capacity into the development of low-carbon medical devices. (3) Within the society, the hospital has fully integrated social impact assessment into its operations, applying Social Return on Investment (SROI) methodology to evaluate the effectiveness of each initiative. This ensures that resources invested serve the public good and reinforce the value of healthcare. Looking ahead, Shuang Ho Hospital will continue cultivating a culture of sustainability, deepening awareness across the institution, and actively disseminating its values throughout the healthcare sector. Through a top-down, bottom-up, and inside-out approach, the hospital is committed to strengthening healthcare resilience and building a sustainable, healthy Taiwan.



## Northern Region Maintenance Engineering Branch, Highway Bureau, Ministry of Transportation and Communications

### Development Plan to Ensure Premium Scenic Quality along Taiwan Provincial Highway No. 2 on the North Coast

**Sustainable Achievements:** The Northern Region Maintenance Engineering Branch of the Highway Bureau under the Ministry of Transportation and Communications implemented a development plan to ensure premium scenic quality along Taiwan Provincial Highway No. 2 on the North Coast, aiming to transform the 20k–52k segment into a sustainable corridor. In line with SDGs 3, 8, 9, 11, and 13, the project improved pedestrian safety by upgrading sidewalks and building barrier-free ramps, alongside the addition and improvement of bicycle lanes to promote green mobility. Other initiatives, including smart inspection systems, lowering manholes to align with road grade, and road leveling, improved road surface smoothness by over 50%. Rain gardens and permeable paving were also introduced to strengthen climate resilience and disaster preparedness. To achieve eco-friendliness, measures were implemented to protect natural heritage sites such as Shimen Cave, establish wildlife buffer zones, and reduce the frequency of maintenance. Ecological techniques, including slope-stabilizing gabions, local material sourcing, and using native plants for the greening of retaining walls, were adopted to preserve biodiversity along the North Coast. In addition, through circular economy materials, material substitution, and balanced earthwork excavation and backfill, the project reduced

carbon emissions by 752,000 kgCO<sub>2</sub>e. With the implementation of human-centered occupational safety measures, a decade-long record of zero occupational incidents was maintained throughout the project. Cross-agency collaboration also supported local revitalization and economic development, making the North Coast highway a sustainable infrastructure that strengthens community resilience.

**Award Highlights:** (1) U-shaped shallow drainage channels were used to improve water runoff in flood-prone sections while optimizing road alignment. (2) A combined design of wave-protection walls and bicycle lanes reduced project costs by NT\$340 million (approximately 85%) and minimized resource consumption. (3) Technology-enabled traffic enforcement was used on accident-prone segments, with the project being the first to use speed cameras in tunnels. After implementation, traffic violations dropped by 72% and accidents by 90%. (4) A co-constructed highway-ecological corridor was created by installing hemp ropes in culverts beneath the road, forming a habitat linkage for hairy crabs and connecting ecological zones on both sides of the highway. (5) Preventive maintenance replaced traditional resurfacing, reducing annual carbon emissions by approximately 18,834 kgCO<sub>2</sub>e. The use of asphalt bricks for road repairs cut emissions by a factor of 25 compared to conventional cold-mix asphalt. (6) A circular economy construction method repurposed waste tires for rockfall protection nets, reducing emissions by an estimated 210,000 kgCO<sub>2</sub>e. (7) RFID technology was used for tracking material testing and verification, reducing annual emissions by 206,750 kgCO<sub>2</sub>e and securing a patent for the system. (8) Disaster prevention was achieved using digital technology. By integrating AI-powered slope modeling platforms, real-time decisions could be made through the digitization of multi-temporal spatial data and historical disaster cases.

**Vision Blueprint:** The Highway Bureau envisions the continued development of a seamless green cycling network, positioning the North Coast as a model for sustainable tourism that connects nature and local communities. Through ecological conservation and environmental protection, efforts are being expanded



to restore native plant species and establish buffer zones for flora and fauna to preserve biodiversity and cultivate a distinctive ecological landscape. This supports the realization of a Green Scenic Highway that attracts visitors while promoting sustainability alongside economic revitalization. The Highway Bureau also pioneers the use of new materials and construction methods, including the first-ever application of warm-mix asphalt concrete technology on provincial highways, with the goal of building low-carbon green roads. Advanced AI technologies are being integrated into RFID systems and maintenance management platforms to optimize slope, bridge, and roadway upkeep, maximizing resource efficiency and merging technological innovation with sustainability principles.

## Office of Road and Accessory Maintenance, Taoyuan City

### Taoyuan City Smart Streetlight Installation Project

**Sustainable Achievements:** Taoyuan City fully replaced traditional mercury-vapor and high-pressure sodium streetlights with smart LED systems, integrating intelligent management platforms for real-time monitoring and maintenance reporting. The project used a Private Finance Initiative (PFI) model, ensuring no additional fiscal burden on the municipal government. The project achieved a 70% energy savings and contributed to SDG 13 (Climate Action). With high lighting efficiency and low failure rates, it enhanced traffic safety and achieved SDG 9 (Industry, Innovation, and Infrastructure). By standardizing streetlight specifications citywide and promoting environmental friendliness, it fulfilled SDG 11 (Sustainable Cities and Communities). The extended lifespan of LED fixtures reduced waste generation, which aligned with SDG 8 (Decent Work and Economic Growth). The project is expected to create approximately 1,000 jobs annually, advancing SDG 12 (Responsible Consumption and Production). The city also pursued public engagement through community briefings and satisfaction surveys, supporting SDG 16

(Peace, Justice, and Strong Institutions). Throughout implementation, the project fostered partnerships with residents, businesses, district offices, academia, and industry, fulfilling SDG 17 (Partnerships for the Goals). Enhanced lighting performance also improved nighttime safety for women, contributing to SDG 5 (Gender Equality).

**Award Highlights:** (1) Taiwan's first smart streetlight project under a Private Finance Initiative (PFI) model demonstrated the feasibility of large-scale maintenance without increasing the municipal government's financial burden. (2) The use of an intelligent management system improved streetlight repair efficiency by 320%, achieving the fastest response time in Taiwan. (3) Innovations in smart controller and automated repair technology led to Taiwan's first patented streetlight application. (4) The project pioneered human-centered smart lighting, enabling automatic adjustment of brightness and beam shape to enhance illumination quality. (5) A dual color temperature design, amber lighting for road segments and white lighting at intersections, was a first in Taiwan and introduced to alert drivers and improve road safety. (6) Red-and-white reflective stickers on light poles at road intersections, paired with dynamic color temperature shifts, increased visibility while conserving energy. (7) Street lights with a dimming function, a first in Taiwan, allowed brightness to be adjusted to 80%, maintaining standard illumination levels while reducing energy consumption by 11.25%.

**Vision Blueprint:** Taoyuan City is promoting its Dimming and Energy-Saving 2.0 Initiative, with full citywide implementation targeted by 2030. The plan is expected to save 6.51 million kWh of electricity annually and reduce carbon emissions by approximately 3.216 million kilograms. Within two years, the city aims to extend its dual-color-temperature streetlight design to all intersections and scale its smart streetlight system across Taiwan and internationally, encouraging other municipalities to adopt similar upgrades. In addition, the Office of Road and Accessory Maintenance is integrating circular economy principles into road maintenance projects. Recycled asphalt concrete, incinerator bottom ash aggregate, and steel slag are being used as primary



materials for pavement construction. By 2030, 60% of road projects will incorporate recycled materials, with full adoption projected by 2035.

## Environmental Protection Bureau, Kaohsiung City Government

### Talent Development through the Net-Zero Institute

**Sustainable Achievements:** In 2022, Kaohsiung City took the lead in forming the Industrial Net-Zero Alliance, adopting a collaborative strategy in response to climate threats. The city also passed the Kaohsiung City Net-Zero City Self-Governance Ordinance, solidifying its net-zero targets and policy framework. To lay a strong foundation for carbon reduction efforts, Kaohsiung established Taiwan's first physical Net-Zero Institute in 2023. The institute engages in collaboration with international certification bodies, universities, and industry partners to cultivate net-zero talent and ensure Kaohsiung's leadership role in the green transition. In addition to working toward net-zero goals, the institute is deeply aligned with sustainability principles. It promotes sustainability education, renewable energy, sustainable urban-rural development, responsible consumption and production, climate action, and multi-stakeholder partnerships. Apart from industry engagement, the institute actively invites the public to participate in lifestyle transformation, helping realize the vision of a truly sustainable city.

**Award Highlights:** The Net-Zero Institute is the only physical carbon reduction classroom in Taiwan established by a local government. To date, it has offered over 80 classes, trained 2,800 participants, and issued 970 certificates. In collaboration with five major international certification bodies, it provides certification programs and invites Taiwan's leading net-zero experts and scholars to conduct classes on carbon sinks, negative emissions, carbon trading, and decarbonization technologies. Working together with the Industrial Net-Zero Alliance, it has extended its reach into China Steel, Taipower, and ASE, transforming industrial sites into learning environments and demonstrating the synergistic impact of "1 + 1 > 2."

In addition, the Institute plays a key role in building net-zero capacity within the Kaohsiung City Government. The mayor has mandated that all bureau heads begin with carbon inventory training and obtain five ISO certifications covering carbon footprint, reduction, and neutrality, among others. To nurture future talent, the Institute offers seed training for junior and senior high school teachers and has launched a Youth Net-Zero Program to plant the seeds of carbon literacy in schools. In the area of talent cultivation, the National Tsing Hua University has, through the Institute, offered an in-service master's credit program on Climate Finance and Innovative Low-Carbon Strategies, integrating green finance into the curriculum. In addition, the Institute has welcomed international delegations from the UK, Germany, Japan, and Israel, each sharing their net-zero solutions. Through its Net-Zero Public Lecture Series, it connects the public and industry stakeholders to explore topics such as natural carbon sinks, negative emissions technologies, and sustainable living, advancing public participation and a just transition.

**Vision Blueprint:** The Net-Zero Institute sets an annual goal of training 1,600 certified professionals and 2,000 industry specialists. In addition to existing certification programs in carbon inventory and carbon footprint, as well as technical courses on carbon reduction, the Institute is expanding its curriculum to include green finance, sustainable bonds, and climate adaptation. To better meet industry needs, it will also launch programs on carbon fees and voluntary reduction projects, diversifying its offerings and aligning closely with industry demands. As a strategic backbone for both the city government and industry, the Institute aims to drive Kaohsiung's net-zero transition. To date, Kaohsiung has reduced 13.79 million tons of carbon emissions compared to its baseline year (2005), leading Taiwan in both absolute reduction and reduction rate. Following the enactment of the Kaohsiung City Net-Zero City Self-Governance Ordinance, the city has introduced a series of supporting policies, including a carbon platform, a commercialization platform, and sustainability reporting mechanisms. Kaohsiung also became the first city in Taiwan to establish a carbon budget, systematically



auditing its carbon reduction action plans. By 2026, the city targets a 23% reduction, and in 2025, it allocated NT\$28.5 billion toward net-zero initiatives in order to promote net-zero and its sustainability work through clearly defined goals, actions, funding, and talent development.

## National Museum of Marine Science and Technology (NMMST)

### More Than Just a Green Museum

**Sustainable Achievements:** The National Museum of Marine Science and Technology aligns with 12 Sustainable Development Goals. For SDG 1, the museum has led local revitalization efforts since its inception, supporting local industries through talent cultivation, landscape development, and economic regeneration. For SDG 2, it combines its ecological kitchen initiative with public education on sustainable fish consumption. In support of SDG 3, it offers a 52-hectare coastal and mountain education and eco-tourism park for public recreation. For SDG 4, the museum itself serves as a lifelong learning hub. In line with SDG 5, it empowers women by providing platforms for performance and expression. The museum holds interactive exhibits on global 2050 Net Zero themes, contributing to SDG 7. For SDG 8, it provides high-quality employment through public services, dining, and retail operations, and offers nonprofit childcare for children aged 3-6. In support of SDG 9, it continuously optimizes its Building Information Modeling (BIM) system for smart energy management. For SDG 14, it monitors the Chaojing Bay ecosystem and leads local marine conservation efforts, including the release of 2,145 horseshoe crabs in Yunlin, Hsinchu, and Tainan since 2022 and over 1,000 clownfish paired with sea anemones in Chaojing Bay. For SDG 15, it provides educational and exhibit spaces and outreach programs focused on terrestrial biodiversity. In alignment with SDG 16, it has established a science platform for public engagement and advocacy. Finally, for SDG 17, it has signed 23 MOUs with domestic and international partners across government, industry, and academia.

**Award Highlights:** The Museum has implemented a series of forward-looking initiatives. (1) It has developed three environmental education programs certified by the Ministry of Environment. (2) It has received multiple national honors, including the 6th Public Art Award from the Ministry of Culture, the top prize in the 6th National Environmental Education Awards (Institutional Category) from the Environmental Protection Administration, the 2022 Excellence Award for Environmental Education Facilities from the Environmental Protection Administration, and two Golden Tripod Awards for digital publishing in the government publications category. (3) The museum has promoted local development in Keelung. (4) It has used smart technologies to integrate resources within its campus. (5) It has established a marine technology development zone. (6) It actively promotes marine environmental education. (7) It has used smart technologies to build a BIM system and developed interactive AR/VR exhibits. (8) It is committed to green operations.

**Vision Blueprint:** As the National Museum of Marine Science and Technology marks its 10th anniversary of public service in 2024, it has achieved three major milestones. (1) It has pioneered all-age education initiatives, including Taiwan's first nonprofit museum-based preschool, a marine career exploration hub, and a lifelong learning center for older adults. (2) It has established Asia's first zero-carbon coral conservation center. (3) It has launched Taiwan's largest Earth SOS display system alongside the SOSx educational program. Looking ahead, the museum will continue to collaborate with local governments, central agencies, and industry partners to support Taiwan's 2050 Net Zero policy. It will further its mission as a hub for marine science and sustainability, working across sectors to build a marine education and leisure industry chain and co-develop a marine-themed eco-tourism and learning park.



## Yunlin County Fire Department

### Building a Hybrid Care Alliance

**Sustainable Achievements:** Through its “Walking Yunlin” initiative, the Yunlin County Fire Department has identified local opportunities to build a resilient city. In partnership with the Yunlin County Public Health Bureau and the Yunlin Branch of National Taiwan University’s College of Medicine, the department has aligned its efforts with sustainability and net-zero goals. Together, they are developing a boundaryless care framework through hybrid integration, leveraging innovation and technology to close healthcare gaps in remote areas. Key initiatives include pre-hospital ultrasound systems, integrated medical-fire response mechanisms, and cross-sector partnerships to build urban resilience. These efforts advance SDG alignment and support Taiwan’s 2050 Net Zero vision. The efforts reflect a people-centered, sustainability-driven approach to promote the Hybrid Care Alliance, an emergency response model that integrates virtual and physical systems.

**Award Highlights:** (1) The Yunlin County Fire Department has fostered collaboration between the public and private sectors by inviting local residents, regardless of their age and social demographics, to become community first responders. (2) Instead of transferring patients from one facility to another, it uses online platforms to coordinate the transfer of patients with critical conditions, such as severe trauma or acute myocardial infarction, to key hospitals. This approach offers a potential solution in response to declining birth rates and a shrinking medical workforce. (3) Through dialogue, it promotes coordination among public health, medical, and fire services to enhance on-site care for critical patients. This approach addresses the systemic challenges related to administrative protocols, legal frameworks, and standard operating procedures. (4) Smoke detectors are being installed in all households to enable early response during a fire and help prevent escalation. This strategy enhances urban resilience while contributing to carbon reduction. (5) It promotes digitized emergency medical response, using ICT tools to record the rescue process, training,

and response strategies, achieving both low-carbon goals and streamlined information management.

**Vision Blueprint:** (1) Strengthening the remote emergency response framework: In alignment with national policy directives, the Yunlin County Fire Department is using 5G technology to integrate pre-hospital, in-hospital, and post-hospital data, ensuring seamless service quality with zero blind spots. Through short-, medium-, and long-term goals, the department aims to expand the scope of application, increase the number of trained responders, and develop emergency response strategies tailored to a city affected by population decline. (2) Promoting the development of smart ambulances: To maintain the quality of emergency response while supporting national carbon reduction goals, the department is actively engaging with industry partners to advance a smart ambulance framework and plan for the deployment of electric ambulances, which reduce carbon emission. These vehicles will eventually be equipped with remote medical technologies to improve emergency response, particularly in aging urban environments.

## Yunlin County Environmental Protection Bureau

### Turning Waste into Power through a Fully Circular Waste Ecosystem

**Sustainable Achievements:** The Environmental Protection Bureau in Yunlin County has adopted “Zero Waste through Resource Circulation” as its core strategy and has advanced seven key initiatives: converting household waste into solid recovered fuel (SRF); recycling incinerator bottom ash into reusable aggregates; transforming food waste into organic compost fertilizer; refurbishing and repurposing large discarded furniture; generating biogas from livestock manure to generate electricity and using digestate as agricultural fertilizer; converting marine waste into functional circular textiles; and converting agricultural waste into quality products such as capes, hats, and blankets to prevent illegal dumping or open burning. The Bureau offers dedicated personnel, hotlines,



and vehicles for the collection and transport of non-organic agricultural waste. Most initiatives are carried out in partnership with local enterprises, fostering public-private collaboration to deliver citizen-centered services. These efforts integrate circular economy principles, environmental sustainability, and social inclusion to protect Yunlin's living environment and public health while moving toward a clean homeland and green energy future. The county has set a goal to achieve full-cycle waste management by 2030.

**Award Highlights:** To build Yunlin County's capacity for autonomous waste management, the Bureau has adopted a European-inspired approach to municipal waste treatment. It promotes the conversion of household waste into solid recovered fuel (SRF) through the development of a Zero Waste Recycling System (ZWS) and a Mobile Mechanical Treatment (MMT) system for SRF production. These systems extract combustible materials from household waste and process them into SRF, which is then sold to Formosa Petrochemical Corporation to replace coal combustion, reducing air pollutants, cutting carbon emissions, and lowering reliance on fossil fuel extraction. This approach also generates significant government savings by reducing outsourced incineration costs and the expenses associated with transporting and reprocessing incinerator bottom ash. By advancing waste-to-fuel conversion through public-private collaboration, Yunlin County is transforming waste into value and forging a distinct path toward autonomous, low-carbon waste management.

**Vision Blueprint:** The Environmental Protection Bureau in Yunlin County continues to promote a range of resource circulation strategies, fostering industry partnerships and delivering citizen-centered services through public-private collaboration. Key initiatives include converting household waste into solid recovered fuel (SRF) and transforming food waste into certified organic compost fertilizer. By promoting zero-waste and circularity across all waste streams, the Bureau aims to enhance the quality of the living environment while building consensus in economic development, social inclusion, and environmental sustainability. This triple-win approach is shaping a cleaner, more comfortable living environment for

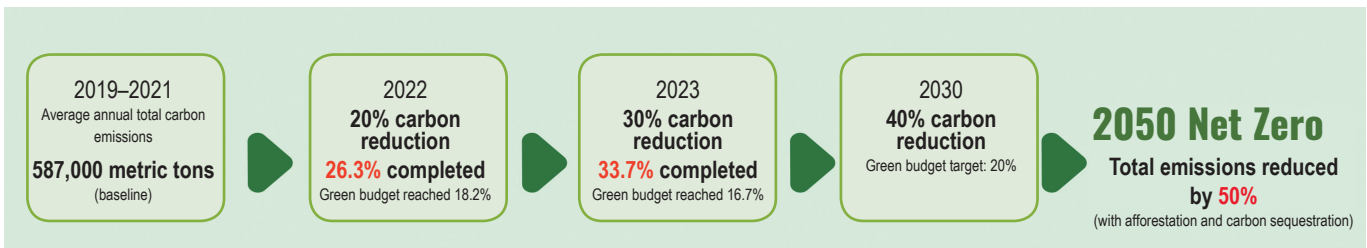
residents and driving progress toward the county's "Full Circularity by 2030" goal, establishing a new benchmark for green urban development.

## Water Resources Agency, Ministry of Economic Affairs

### Pioneering Carbon Budgeting Toward a Greener, Bluer Taiwan

**Sustainable Achievements:** Since 2022, the Water Resources Agency under the Ministry of Economic Affairs has pioneered Taiwan's first carbon budget management mechanism for infrastructure projects. It is also the first government agency in Taiwan to obtain dual certification under ISO 14067 and PAS 2080, demonstrating its commitment to sustainability and transformation. Through the implementation of carbon budgeting, the Agency achieved a 26% reduction in carbon emissions in 2022, followed by 33% in 2023. It continues to actively share its carbon management framework and best practices, extending its impact across other government departments and industry sectors. Leading by example, it guides the construction sector toward net-zero transformation and long-term sustainability. In line with Taiwan's 2050 net-zero emissions policy, the Agency is embedding sustainability thinking across all levels of operations and contributing to Taiwan's sustainable development goals.

**Award Highlights:** To promote sustainable development and realize the 2050 net-zero emissions goal, the Water Resources Agency has embedded a culture of innovation within its institutional framework. In 2023, its digital transformation initiative received the Model Enterprise Award and the Distinguished Project Award from the Project Management Institute. That same year, it also received the inaugural Integrity Award from the Ministry of Justice. In addition, the Agency also launched large-scale afforestation initiatives on agency-managed land. Notably, the Dongpunei River Greening and Beautification Project and the Beiyuan Park Tree Planting Project at Shimen Reservoir became the first in Taiwan to be officially



**Reduction planning** | **Low-carbon design** | **Operational energy efficiency** | **Low-carbon construction**

- Policy**
  - Carbon reduction policies guided by climate change strategy
  - Administrative regulations codified (carbon reduction added to supervision and construction plans)
- Planning**
  - 2022 Carbon Reduction Guidelines for Engineering Works
  - Reduction planning and development of new construction methods
- Design**
  - Agency proposed emission reductions must be higher than that approved by the Water Resources Agency
  - Green budget must exceed 5% of total project cost
  - Incorporating low-carbon materials, methods, recycled aggregates, and renewable energy
- Construction**
  - 2022 Carbon Reduction Guidelines for Engineering Works
  - Encourage contractors to use high-efficiency or eco-certified equipment
  - Standardize logistics and materials management
- Operations**
  - 2024 Carbon Reduction Guidelines for Engineering Works
  - Energy saving, cross-sector collaboration, afforestation registry, and carbon sink applications

**Reconstruction of the No. 2 Levee at Nanshi Lake in Huangxi**  
Afforestation for carbon sequestration

**Systemic carbon reduction certified by BSI**  
Pioneering joint declaration mechanism successfully verified by third-party audit

Verified under PAS 2080 standards with regular audits

▲ Figure 3-12 National Sustainable Development Award – Government Agencies Category Winner: Water Resources Agency, Ministry of Economic Affairs. The Agency pioneered Taiwan’s first carbon budget management mechanism and integrated digital and AI-enabled operational systems to achieve carbon reduction targets

registered under the Ministry of Environment’s voluntary carbon reduction program.

**Vision Blueprint:** Achieving sustainable transformation and net-zero emissions in hydraulic engineering is a shared challenge for every hydraulic professional. To foster long-term sustainability across the water management system and lay the foundation for a greener, low-carbon future, the Agency has formulated its carbon reduction roadmap from 2023 to 2027. This roadmap focuses on four key areas: updating both standardized and actual carbon emission factors to improve the accuracy of carbon accounting; establishing a carbon verification mechanism; increasing public awareness on carbon reduction; and driving transformation across the water infrastructure sector. In addition, it will use AI technologies to promote both Green Transformation (GX) and Digital Transformation (DX), realizing its vision for sustainable hydraulic engineering.

## Bureau of Standards, Metrology and Inspection (BSMI)

### Advancing Renewable Energy Certification for a Sustainable Future

**Sustainable Achievements:** The Bureau of Standards, Metrology and Inspection (BSMI) has not only established Taiwan’s renewable energy certificate (REC) system but also founded the National Renewable Energy Certification Center, formulated relevant regulations, and stimulated the green electricity market in line with SDG 7 while proactively responding to SDG 13. BSMI is also committed to building a gender-inclusive workplace, having formed a gender equality task force and appointed women to managerial roles within the certification center, effectively implementing SDG 5. In support of SDG 12, it has consistently practiced green procurement, with rates exceeding



99% in both 2022 and 2023, and has integrated circular economy principles into daily operations. To enhance public access and transparency, BSMI continues to open relevant datasets, consolidate frequently asked questions, and maintain a document download portal. These initiatives promote digitalization and paperless governance in line with SDG 16 and allow the public to better understand Taiwan's green electricity market and REC services.

**Award Highlights:** (1) To expand domestic verification capacity, BSMI supports the development of professional talent by organizing lead verifier training programs for greenhouse gas emissions, product carbon footprints, and on-site inspection personnel for renewable energy certificates, thus advancing SDG 4 in the process. (2) It participates in seminars, briefings, forums, and training programs hosted by various organizations to enhance understanding of its role across industries and the renewable energy certificate (REC) system. These efforts foster diverse partnerships and promote collaborative adoption of the REC framework, in line with SDG 17. (3) BSMI continues to invest in youth knowledge outreach by hosting youth forums that share insights on renewable energy and facilitate dialogue among government, academia, and industry. It also supports the creation of public-interest green energy sites, expanding the added value and social impact of the REC system.

**Vision Blueprint:** (1) BSMI is amending the Implementation Regulations Governing Renewable Energy Certificates and helping large-scale domestic hydropower facilities in obtaining international sustainability certifications to help drive Taiwan's green electricity supply. (2) It is planning to promote green electricity charging for electric vehicles, exploring incentive mechanisms and regulatory frameworks to encourage EV owners to prioritize renewable energy use. This initiative supports the development of net-zero mobility and contributes to a more sustainable lifestyle. (3) To attract domestic enterprises to participate in REC site inspection and verification, BSMI is formulating relevant guidelines for accredited REC audit bodies to conduct on-site verification of renewable energy generation facilities. This effort helps create a new industry ecosystem, stimulates job creation, and aligns with SDG 8.

## Chiayi City Government

### Advancing Sustainability in Taiwan's Wood Capital

**Sustainable Achievements:** Chiayi City is using design thinking to formulate sustainability measures that bridge tradition and innovation. Through its initiative "Advancing Sustainability in Taiwan's Wood Capital," the city responds to Taiwan's 2050 net-zero transition strategy across four key areas: energy conservation, resource circulation and zero-waste, natural carbon sinks, and green living for net-zero. Its five action areas include: urban forestry, cultivating saplings and managing tree stock to enhance urban greening; human-centered carbon neutrality, revitalizing the former prison dormitory into a low-carbon cultural attraction; education and craftsmanship, rebuilding Chiayi's timber industry through a woodcraft training center and training of artisans; Chiayi wood industry, certifying high-quality timber products and supporting youth-led entrepreneurship; and circular economy, injecting new life into historic wooden houses through adaptive reuse and regeneration.

**Award Highlights:** Through its plan to promote livable architecture, the city has adopted the core principles of "cool comfort, vitality, and a new wood capital" to establish nine design guidelines and sixteen architectural strategies that promote the integration of modern wood construction and passive design elements, such as natural ventilation, shade, and sunlight, into building forms. These efforts help realize Chiayi's environmental sustainability goals and achieve net-zero emissions and carbon sequestration. To help investigate carbon sinks in urban green areas and carbon storage in wooden structures, Chiayi City has partnered with National Cheng Kung University to deploy innovative methods combining drone-based multispectral aerial imaging, AI-driven algorithms, and Building Information Modeling (BIM). This collaboration positions Chiayi as the first city in Taiwan to apply spatiotemporal big data and Geo-AI for carbon sink mapping and analysis.

**Vision Blueprint:** On July 16, 2024, Chiayi City officially promulgated the Chiayi City Net-Zero and Sustainable Management Self-Government Ordinance,



which was filed with the Ministry of Environment and submitted to the Executive Yuan for record. This makes Chiayi the first non-metropolitan city in Taiwan to enact a local ordinance dedicated to net-zero emissions governance. Guided by the principle of “New Sustainability as a Starting Point,” Chiayi is implementing its New Sustainability Net-Zero Flagship Program from 2023 to 2026, which is built around three strategic pillars: integrating sustainability into governance, embedding sustainability into everyday life, and transforming sustainability into economic opportunities. To realize these goals, the city has outlined five key strategies: low-carbon transportation, livable architecture, green industry, resource circulation, and net-zero green living. Together, these efforts aim to build a sustainable city that is inclusive across all ages and livable for generations to come.

## Ministry of Environment

### Establishing a Smart Air Quality Monitoring System

**Sustainable Achievements:** Since 2016, the Ministry of Environment has been developing a nationwide IoT-based air quality sensing network, integrating real-time data from monitoring stations across Taiwan. By using minute-level big data analytics, the system enhances monitoring precision and overcomes the limitations of traditional methods to deliver timely and actionable environmental information. Another key strategy of the Ministry is strengthening international collaboration, particularly through partnerships with the U.S. National Aeronautics and Space Administration (NASA) and atmospheric agencies. These efforts incorporate satellite-based inversion technologies to analyze air quality data, underscoring the importance of global cooperation in addressing climate change. Through technological innovation and collaboration, the Ministry has advanced Taiwan’s environmental monitoring capabilities while playing an active role in global climate governance, working to ensure a better, more sustainable future for generations to come.

**Award Highlights:** The Ministry has enhanced the precision and responsiveness of its air quality monitoring by introducing smart sensing technologies and expanding cloud-based data processing



▲Figure 3-13 National Sustainable Development Award – Government Agencies Category Winner: Ministry of Environment. The Ministry safeguards Taiwan’s sustainable future through smart air quality monitoring

platforms. These upgrades enable faster detection and forecasting of pollution events, directly strengthening public health protection and leading to more effective environmental policymaking. More importantly, Taiwan’s air quality management system does not rely solely on government investment. It integrates cross-sectoral collaboration mechanisms, driving technological innovation while offering valuable operational insights for other jurisdictions. In addition, public access and transparency of air quality data, through real-time information delivery and participatory mechanisms, have enhanced environmental awareness and public literacy around pollution issues. This integrated air quality monitoring system has thus become an exemplary model worth emulating.

**Vision Blueprint:** The Ministry of Environment will continue to promote innovative application of environmental technologies to deliver more transparent and real-time air quality information. It is actively promoting legislation and policy interventions to accelerate clean transitions in high-emission sectors such as industry and transportation, helping them meet their carbon reduction commitments. The Ministry also encourages businesses to integrate Environmental, Social, and Governance (ESG) considerations into their operations, aiming to achieve both economic and environmental benefits. At the same time, it is working to elevate public awareness and educate the public on environmental responsibility. These efforts form a critical pathway toward a healthier, low-carbon, and livable Taiwan, one that aligns with the SDGs and aspires to a vision of borderless environmental stewardship.



## CONCLUSION

In response to the impacts of climate change and the global shift toward sustainability, President Lai Ching-te announced the National Project of Hope on May 20, 2024. This initiative outlines five key strategies for Green Growth and Net-Zero Transition by 2050: building a smart green energy strategy; promoting the dual-axis transformation of industries in both digital and green aspects; shaping a net-zero sustainable green lifestyle; the government is the key support for the net-zero transition; and a just transition that leaves no one behind. To realize these goals, the government launched the Comprehensive Carbon Reduction Action Plan, using a top-down approach with six carbon reduction action plans across six major sectors, and a bottom-up approach that continuously refines the 12 key net-zero strategies. Together, these initiatives realize self-directed carbon reduction efforts to ensure steady progress toward 2050 net-zero.

As Taiwan advances toward net-zero emissions, the National Council for Sustainable Development continues to coordinate with the different government agencies and drive forward the sustainability agenda. This report consolidates key developments in 2024 related to Taiwan's Sustainable Development Goals (SDGs) and net-zero policies. In 2024, the NCSD convened a Council Meeting and three working conferences, focusing on climate adaptation, smart green architecture, deep energy efficiency, and indicator review. These meetings integrated inputs from the different ministries, strengthened policy alignment, and incorporated nature conservation and biodiversity into climate response strategies. The efforts demonstrated Taiwan's multifaceted capacity for sustainable development implementation. The meetings also followed up on the progress of net-zero transition and recommended amendments to the Sustainability Policy Guidelines in preparation for a comprehensive review of future goals. In addition, the 2024 National Sustainable Development Awards attracted participation from 162 organizations. Following a rigorous process of preliminary review, secondary review, and final selection, 46 entities and

projects were recognized across four categories: Education, Corporations, Civic Organizations, and Government Agencies. Their achievements in energy conservation, carbon reduction, circular economy, sustainable governance, and environmental education reflect Taiwan's collective commitment to sustainability and its resolute vision for a more resilient future.

Taiwan's Sustainable Development Goals (SDGs) were formulated in 2018, and the corresponding indicators were established in 2019. In accordance with the Guidelines for Tracking and Evaluation of Taiwan's SDGs, the NCSD convenes annual working groups and project groups to engage lead agencies responsible for each goal, reviewing implementation progress every year and conducting a comprehensive evaluation every four years. In 2024, Taiwan completed its second phase of SDG evaluation, culminating in the publication of the Interim Report on the Taiwan Sustainable Development Goals (2020–2023), now available on the NCSD website. Of the 337 indicators, 269 met expected progress benchmarks. The achievement demonstrated that approximately 80% of Taiwan's SDG indicators are on track, indicating strong national progress toward sustainability, after excluding 19 indicators that did not reach the statistical period. In 2024, the Office of the President established the National Climate Change Committee and the Healthy Taiwan Promotion Committee to initiate dialogue with the public. It also appointed Chief Sustainability Officers across government agencies to strengthen internal coordination and policy oversight. In conjunction with the National Climate Change Committee, the NCSD continues to formulate and implement strategic climate response frameworks. A second round of SDG and indicator review, launched in 2025, aims to deepen Taiwan's sustainability outcomes and enhance collaboration with the public, local governments, and international partners. With collective national effort, Taiwan is steadily advancing toward its vision of net-zero by 2050 and long-term sustainable development.



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**ON NATIONAL SUSTAINABLE DEVELOPMENT**

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