2025

KAOHSIUNG   CITY
Kaohsiung   City   Voluntary   Local   Review

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KAOHSIUNG CITY
Kaohsiung City Voluntary Local Review

1

A Message from the Mayor

Mayor of Kaohsiung

Since the world's first export processing zone was established in Kaohsiung in 1966, the city has become a key engine driving Taiwan's economic take-off. For nearly sixty years, Kaohsiung City has injected strong momentum into Taiwan's prosperity through its industrial energy. Nowadays, under the wave of global climate change and sustainable development, this engine is undergoing a deep transformation, moving from pursuing growth of output value to a new future that balances economic, environmental, and social prosperity together.

Kaohsiung City not only pursues sustained economic growth, but also devotes to a higher-quality, more resilient, and more equitable which contain development model through the process of "sustainable co-creation, thereby achieving the vision of "net-zero Kaohsiung". In order to promote sustainable development, Kaohsiung City adheres to the principle of transparent governance and also set new method of system innovation to lay a solid foundation for the city's path to sustainability. To this end, the city government demonstrates its long-term commitment and responsible determination to sustainable development through concrete institutional frameworks.

Kaohsiung City is the only city in Taiwan to submit a Voluntary Review Report (VLR) for five consecutive years. This year, this commitment is not only to report progress to citizens and the international Kaohsiung sociality, but also a reflection of the city's internalization of sustainability goals into daily governance and continuous self-improvement. In the meantime, this year, the report will focus on the theme marking "Net Zero Kaohsiung, Sustainable Co-creation, the theme that profoundly reveals Kaohsiung's core confidence; a sustainable future is built through the joint efforts of all citizens and the government; the goal of net zero requires consensus and collaboration between the public and private sectors to drive various transformation initiatives. Simultaneously, to echo and

implement Article 5 of the "Kaohsiung City Net Zero Urban Development Autonomous Ordinance," this report will review the city's progress in integrating the UN Sustainable Development Goals (SDGs) and the 2050 net-zero emissions dual-axis path.

The key to achieve the grand goal of net-zero Kaohsiung lies in a solid process of sustainable co-creation. A sustainable future is not something planned unilaterally by the government, but rather the result of collaboration and careful refinement with all related beneficiaries. Upholding this confidence, related beneficiaries' consultation has become an indispensable core element in the compilation of the city's VLR and the formation of policies.

To ensure governance effectively responding to societal needs, the city government team has gathered valuable suggestions from civil society through diverse channels such as questionnaires and expert meetings. These voices have been

transformed into a powerful driving force for building urban consensus and propelling the city government forward. The voluntary review report for 2025 serves as a governance blueprint for the Kaohsiung City Government to conduct self-examination and plan for future progress, and also forms the basis for ongoing dialogue with various sectors. The report not only presents detailed data on the city's progress across 17 item SDGs indicators, but also reviews the achievements and progress of nine major transformation strategies, including energy, industry, transportation, and residential and commercial sectors, in accordance with the "Net Zero Policy White Paper." The release of this report embodies this spirit of responsibility and marks the beginning of the next phase of social dialogue. Sustainable development is a grand and intergenerational project requiring unwavering determination, long-term planning, and the participation of all citizens. Kaohsiung City will continue to solicit suggestions with the utmost rigor, guiding the city steadily forward on the path of transformation.

2

Introduction: Highlights

▶ **VLR Development History**

2021

Sustainable Development

- Boosting the Economy
- Enhancing Education
- Improving Quality of Life
- Expanding Employment
- Strengthening Public Safety

2022

Net-Zero Emission

- More Greenery, Less Carbon
- Green Transportation
- Smart Technologies
- Zero-Carbon Communities
- Resource Circulation
- Embedding Sustainability

2023

Sustainable Resilience

- Resilient and Sustainable Industries
- Urban Climate Resilience
- Climate Adaptation Vision
- Cultivating a Culture of Climate Adaptation
- Sustainable Natural Ecology

2024

Net-Zero Sustainability

- Aligning Climate Actions with the SDGs
- Showcasing Sustainability Highlights
- Net-Zero Progress Review — Nine Key Dimensions

2025

Co-Creating a Net-Zero and Sustainable Kaohsiung

- Advancing the goals of the National Association of Government Chief Sustainability Officers
- Deepening Stakeholder Engagement
- Comprehensive Review of Net-Zero and Sustainability Issues
- Systematic Presentation of Implementation Outcomes

1. Review of VLR Development Over the Years

Following the National Sustainable Development Goals, Kaohsiung City published its first VLR in 2021, establishing a systematic review framework for sustainable governance. This report inventoried policies against the 17 United Nations Sustainable Development Goals (SDGs) to demonstrate alignment with international goals. The 2022 VLR evolved to a focused thematic approach, covering areas like "Carbon Reduction and Reforestation, Smart Technology, and Resource Circulation," shifting from initial goal-mapping to strategic resource integration. In 2023, responding to climate challenges, the VLR with the theme of "a sustainable and resilient city" centered on five major pillars: "Urban Climate Resilience," "Climate Adaptation Vision," "Sustainable Natural Ecology," "Sustainable and Resilient Economic Industry," and "Rooting Climate Adaptation Culture," illustrating the city's adaptation strategies.

The 2024 report further deepened this integration by aligning with the Kaohsiung City Self-government Ordinance on Net-Zero Urban Development and reviewing based on the Kaohsiung City Net-Zero Policy White Paper, merging SDGs with local net-zero regulations. Following this trajectory, the 2025 report, themed "co-creating a Net-Zero, Sustainable Kaohsiung", focuses on project results and deepens the spirit of co-creation. This year's VLR expanded public consultation through questionnaires and expert meetings, transforming civil society feedback into a key force for building consensus and promoting inclusive governance. This entire journey shows a clear evolution in Kaohsiung's VLR: from initial SDG mapping, to thematic deep-dives, resilience building, integration with net-zero legislation, and finally, multi-stakeholder collaboration. Kaohsiung continues using the VLR mechanism to review local policy effectiveness, align with international standards, and demonstrate its dual commitment to local sustainability and global net-zero.

2. United Nations' Sustainable Development Goals

In 2015, 193 United Nations member states adopted the "2030 Agenda for Sustainable Development" (2030 Agenda), committing to promote Sustainable Development Goals (SDGs) to build a more resilient and inclusive future. In "Transforming our World: 2030 Agenda for Sustainable Development," the SDGs are summarized into five core dimensions: People, Prosperity, Planet, Peace, and Partnership. Upholding the "Leave No One Behind" spirit, they aim to achieve sustainable inclusion.

As 2030 approaches, the UN Sustainable Development Solutions Network (SDSN) released the Sustainable Development Report 2024 detailing members' progress and challenges. Significant progress has been made on SDG 1 (Poverty), SDG 3 (Health), SDG 5 (Gender Equality), SDG 7 (Energy), and SDG 13 (Climate Action). However, challenges remain, including climate change, resource inequality, AI-driven digital divides, and gaps in global governance. Strengthened cooperation and innovative actions are essential for a sustainable future.

▶ **Kaohsiung City's Governance Target and Control Measures for Sustainable Development**

SDG 1
End poverty in all its forms everywhere

Eliminate all forms of poverty everywhere. Through education, counseling, and subsidies, assist disadvantaged and low- to middle-income households in gaining employment and escaping poverty, thereby eliminating various forms of poverty. For example: organizing child and youth future education development accounts, promoting mobile medical services in rural areas, prioritizing social housing and rental subsidy applications for disadvantaged households, among a total of 8 policy measures.

SDG 4
Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. Provide various learning resources and diverse learning channels, strengthen the promotion of native language education, and promote urban reading programs to implement lifelong learning. For example: expanding public kindergartens, offering care and tutoring programs for disadvantaged families and children of new residents, conducting pre-employment training for disadvantaged unemployed individuals, and promoting lifelong learning and environmental education, among a total of 13 policy measures.

SDG 2
End hunger, achieve food security and improved nutrition and promote sustainable agriculture

End hunger, achieve food security, improve nutrition, and promote sustainable agriculture. Engage industry, government, and academia in public-private partnerships to facilitate the implementation of smart agriculture in Kaohsiung. Utilize the agricultural information-sharing platform for data integration and value addition, producing high-quality and safe fruits and vegetables, and establishing a secure agricultural city. For example: implementing a production and sales certification mechanism, promoting organic farming, and establishing practical aid service points, among a total of 7 policy measures.

SDG 5
Achieve gender equality and empower all women and girls

Achieve gender equality and empower all women and girls. Eliminate gender stereotypes and violence, provide diverse learning opportunities for women, respect women's decision-making rights, and create a socially equal and harmonious environment. For example: offering counseling services for victims of domestic violence, promoting the prevention of domestic violence and sexual assault, among a total of 7 policy measures.

SDG 3
Ensure healthy lives and promote well-being for all at all ages

Ensure healthy lives and promote well-being for all ages. Support family caregiving by expanding public childcare service centers, promoting diverse caregiving services, and enhancing the development of social welfare centers to ensure health and well-being across all age groups. For example: expanding public childcare service centers, providing childcare subsidies, establishing social welfare facilities, offering services for homeless care, encouraging the use of long-term care services, and promoting all-age fitness programs, among a total of 14 policy measures.

SDG 6
Ensure availability and sustainable management of water and sanitation for all

Ensure availability and sustainable management of water and sanitation for all. Actively develop diverse water sources, promote water recycling and the use of hyporheic water, implement leak detection in the water supply system, and improve sewage pipeline connection rates to ensure clean drinking water. For example: implementing public sewage pipeline and user connection projects, recycling treated wastewater for industrial use, forming water environment patrol teams, and promoting river volunteer services, among a total of 13 policy measures.

SDG 7
Ensure access to affordable, reliable, sustainable and modern energy for all

Ensure access to affordable, reliable, sustainable, and modern energy for all. Promote green energy projects and develop solar power as the foundation for a safe, stable, efficient, and clean energy supply system, reducing reliance on fossil fuels and decreasing air pollution. For example: establishing the "Kaohsiung City Task Force for Green Electricity Promotions" and the "Fishery and Electricity Symbiosis Project Oce," and promoting a six-year, 1.25 GW green energy solar power project, among a total of 2 policy measures.

SDG 8
Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
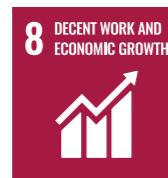
Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all. Cultivate diverse talents, provide support for entrepreneurship and business transformation, and create a favorable employment environment, implementing labor inspections and occupational safety measures. For example: offering entrepreneurship training courses and providing consultation services for startups, among a total of 2 policy measures.

SDG 9
Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation. Accelerate land planning, promote industrial park development and business district transformation, and support innovative industries to market Kaohsiung's unique features. For example: facilitating the investment of advanced manufacturing companies in the Renwu Industrial Park, promoting the "Asia New Bay Area 5G AIoT Innovation Hub Project," establishing the DAKUO Digital Art Kaohsiung United Office, the "Kaohsiung Intelligence Innovation (KO-IN) Park," and the "MEGABAY" to support local enterprises, among a total of 5 policy measures.

SDG 10
Reduce inequality within and among countries

Reduce inequality within and among countries. Balance the interests of diverse communities and industries, creating various employment opportunities. For example: providing employment services for persons with disabilities, disadvantaged groups, and middle-aged and senior citizens, among a total of 5 policy measures.

SDG 11
Make cities and human settlements inclusive, safe, resilient and sustainable

Make cities and human settlements inclusive, safe, resilient, and sustainable. To ensure residents' well-being, Kaohsiung actively maintains and improves environmental quality while completing various infrastructure projects and expanding park areas to create a safe and prosperous living environment. For example: implementing urban renewal projects, national land planning and non-urban land development reviews, rural area comprehensive planning, air quality improvement measures, promoting the removal of motorcycles from sidewalks, and developing a public bicycle road network, among a total of 35 policy measures.

SDG 12
Ensure sustainable consumption and production patterns

Ensure sustainable consumption and production patterns. Implement a circular economy, promote resource recycling and reuse, and encourage sustainable consumption and production practices. For example: promoting business food waste and waste reuse, implementing bottom ash recycling from incinerators, promoting green procurement by public institutions and private enterprises, issuing green bonds, and promoting green loans and financing, among a total of 17 policy measures.

SDG 13
Take urgent action to combat climate change and its impacts

Take urgent action to combat climate change and its impacts. Actively reduce greenhouse gas emissions, establish long-term carbon reduction pathways, and promote adaptation measures to mitigate climate change impacts and enhance urban resilience. For example: constructing detention basins, promoting smart flood monitoring and "Water Regime e-Portal" disaster prevention & warning service, providing education on landslide prevention and high-temperature adaptation, promoting Kaohsiung City GHG Reduction Implementation Plan and Kaohsiung City Net-Zero Policy White Paper, and implementing the Kaohsiung City Action Plans for Climate Change Adaptation, among a total of 13 policy measures.

SDG 14
Conserve and sustainably use the oceans, seas and marine resources for sustainable development

Conserve and sustainably use the oceans, seas, and marine resources for sustainable development. Through education and regular monitoring, ensure the conservation and sustainable use of marine resources. For example: conducting regular coastal and marine water quality monitoring, promoting marine conservation and environmental education courses, and regularly removing ghost nets from artificial reef areas, among a total of 6 policy measures.

SDG 15
Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation, and halt biodiversity loss. Foster forest resources, provide guidance on private afforestation, encourage public participation in afforestation through incentives, and establish an ecological afforestation environment to maintain the city's biodiversity. For example: implementing afforestation incentive programs, providing compensation for logging bans on Indigenous lands, managing nature reserves, animal sanctuaries, and important wetlands, among a total of 8 policy measures.

SDG 16
Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
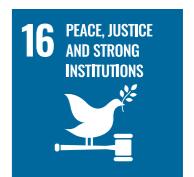
To uphold social order and ensure the safety of citizens' lives and property, the city is committed to eliminating all forms of violence while implementing open government initiatives and encouraging public participation in civic affairs. This includes establishing a comprehensive citizen engagement mechanism. Key measures include providing multiple channels for the public to report incidents and seek assistance, conducting home visits and support for families of suspects violating the Narcotic Hazards Prevention Act, and promoting restorative justice seed teacher training, among a total of 7 policy measures.

SDG 17
Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development. Actively cultivate talent for international exchanges at all levels and strive to establish international training centers to facilitate exchanges and enhance the city's international visibility. For example: organizing education or awareness-raising activities on sustainable development topics, promoting international cooperation and technical exchanges on sustainability strategies, and conducting education and training for staff for international psychiatry under the New Southbound Policy, among a total of 6 policy measures.

3. Kaohsiung City Sustainable Development Promotion Organization

The city has established the "Committee for Sustainable Development and Climate Change Response Promotion of Kaohsiung City Government" (The Committee) as the responsible unit for sustainable development. It convenes annually to review sustainability indicators and, in response to the Climate Change Response Act, integrate climate change response to achieve the vision of a resilient, green city. The Committee is chaired by the Mayor of Kaohsiung City and facilitates cross-departmental collaboration, initiating and regularly reviewing policies in energy transition, carbon management, circular economy, and transportation. As the highest coordinating body, it reviews sustainability indicators and policy effectiveness.

▶ Organizational Structure of the "Committee for Sustainable Development and Climate Change Response Promotion of the Kaohsiung City Government.

Committee for Sustainable Development and Climate Change Response Promotion of Kaohsiung City Government

Convenor — (1 person, concurrently held by the Mayor of the City)

Deputy Convenor(s) — (3 persons, concurrently held by the Deputy Mayor and two representatives from organizations related to sustainable development)

Executive Secretary — (concurrently held by the Director of the Environmental Protection Bureau, Kaohsiung City)

members — (15-25 persons, composed of department heads, experts and scholars, young students, and representatives from organizations related to sustainable development)

淨零學院 Net Zero Institute

Secretariat (Environmental Protection Bureau)/Research, Development and Evaluation Commission — Committee Meeting

Work Meeting

Green Economy Division
Economic Development Bureau
- Youth Bureau
- Environmental Protection Bureau
- Tourism Bureau
- Sports Development Bureau
- Labor Affairs Bureau
- Agriculture Bureau
- Marine Bureau
- Finance Bureau

Sustainable Vision Division
Urban Development Bureau
- Social Affairs Bureau
- Department of Health
- Transportation Bureau
- Environmental Protection Bureau
- Water Resources Bureau
- Public Works Bureau
- Economic Development Bureau
- Mass Rapid Transit Bureau
- Research, Development, and Evaluation Commission
- Finance Bureau
- Commission of Indigenous Affairs
- Department of Budget, Accounting, and Statistics

Sustainable Safety Division
Water Resources Bureau
- Social Affairs Bureau
- Personnel Department
- Environmental Protection Bureau
- Agriculture Bureau
- Department of Health
- Education Bureau
- Public Works Bureau
- Commission of Indigenous Affairs
- Police Department
- Department of Substance Abuse Control and Prevention
- Research, Development, and Evaluation Commission
- Marine Bureau
- Labor Affairs Bureau
- Sports Development Bureau
- Urban Development Bureau
- Transportation Bureau
- Economic Development Bureau
- Fire Bureau

Sustainable Education Division
Education Bureau
- Personnel Department
- Bureau of Cultural Affairs
- Open University of Kaohsiung
- Social Affairs Bureau
- Environmental Protection Bureau
- Marine Bureau
- ICLEI KCC
- Research, Development, and Evaluation Commission
- Department of Health
- Department of Substance Abuse Control and Prevention
- Agriculture Bureau
- Sports Development Bureau
- Civil Affairs Bureau

Sustainable Environment Division
Environmental Protection Bureau
- Urban Development Bureau
- Agriculture Bureau
- Public Works Bureau
- Economic Development Bureau
- Marine Bureau
- Commission of Indigenous Affairs

▶ Sustainable Responsibilities of Departments in the Kaohsiung City Promotion Committee.

1 NO POVERTY — Responsible Bureau
Social Affairs Bureau; Commission of Indigenous Affairs; Fire Bureau; Urban Development Bureau; Labor Affairs Bureau; Department of Health;
Quantity **7**

2 ZERO HUNGER — Responsible Bureau
Social Affairs Bureau; Agriculture Bureau; Department of Health;
Quantity **7**

3 GOOD HEALTH AND WELL-BEING — Responsible Bureau
Transportation Bureau; Social Affairs Bureau; Department of Substance Abuse Control and Prevention; Fire Bureau; Sports Development Bureau; Department of Health; Environmental Protection Bureau;
Quantity **14**

4 QUALITY EDUCATION — Responsible Bureau
Personnel Department; Bureau of Cultural Affairs; Social Affairs Bureau; Open University of Kaohsiung; Education Bureau; Labor Affairs Bureau; Agriculture Bureau; Environmental Protection Bureau;
Quantity **13**

5 GENDER EQUALITY — Responsible Bureau
Personnel Department; Civil Affairs Bureau; Social Affairs Bureau;
Quantity **7**

6 CLEAN WATER AND SANITATION — Responsible Bureau
Public Works Bureau; Water Resources Bureau; Economic Development Bureau; Environmental Protection Bureau;
Quantity **13**

7 AFFORDABLE AND CLEAN ENERGY — Responsible Bureau
Public Works Bureau; Economic Development Bureau;
Quantity **2**

8 DECENT WORK AND ECONOMIC GROWTH — Responsible Bureau
Youth Bureau
Quantity **2**

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE — Responsible Bureau
Water Resources Bureau; Economic Development Bureau;
Quantity **5**

10 REDUCED INEQUALITIES — Responsible Bureau
Department of Budget , Accounting and Statistics; Labor Affairs Bureau;
Quantity **5**

11 SUSTAINABLE CITIES AND COMMUNITIES — Responsible Bureau
Public Works Bureau; Water Resources Bureau; Transportation Bureau; Social Affairs Bureau; Fire Bureau; Finance Bureau; Mass Rapid Transit Bureau; Urban Development Bureau; Environmental Protection Bureau;
Quantity **29**

12 RESPONSIBLE CONSUMPTION AND PRODUCTION — Responsible Bureau
Marine Bureau; Finance Bureau; Economic Development Bureau; Environmental Protection Bureau; Tourism Bureau;
Quantity **17**

13 CLIMATE ACTION — Responsible Bureau
Public Works Bureau; Water Resources Bureau; Social Affairs Bureau; Department of Substance Abuse Control and Prevention; Commission of Indigenous Affairs; Education Bureau; Urban Development Bureau; Labor Affairs Bureau; Agriculture Bureau; Sports Development Bureau; Department of Health; Environmental Protection Bureau; Police Department;
Quantity **13**

14 LIFE BELOW WATER — Responsible Bureau
Marine Bureau;
Quantity **6**

15 LIFE ON LAND — Responsible Bureau
Public Works Bureau; Commission of Indigenous Affairs; Agriculture Bureau;
Quantity **8**

16 PEACE, JUSTICE AND STRONG INSTITUTIONS — Responsible Bureau
Social Affairs Bureau; Department of Substance Abuse Control and Prevention; Research, Development and Evaluation Commission; Education Bureau; Police Department;
Quantity **7**

17 PARTNERSHIPS FOR THE GOALS — Responsible Bureau
ICLEI KCC; Research, Development and Evaluation Commission; Education Bureau; Department of Health; Environmental Protection Bureau;
Quantity **6**

4. Governance Framework

Kaohsiung's commitment to sustainability began in 2004 with the establishment of the Committee for Sustainable Development. In 2005, it participated in the "Kaohsiung-Pingtung Regional Committee for Sustainable Development", setting a sustainable assessment system. The structure evolved, and in 2017 it was upgraded to the "Committee for Sustainable Development and Climate Change Adaptation of Kaohsiung City Government" to strengthen the focus on climate adaptation.

To actively respond to the Climate Change Response Act and global net-zero demands, the city announced its 2050 pathway/roadmap to Net Zero and established the Net-Zero Industry Alliance in 2022. In 2023, the governance structure was further optimized, reorganizing the committee into the "Committee for Sustainable Development and Climate Change Response Promotion of Kaohsiung City Government" to enhance execution efficiency. The physical "Net Zero Institute" was also established to cultivate talent and promote dialogue among industry, government, academia, and research institutes on net-zero and adaptation.
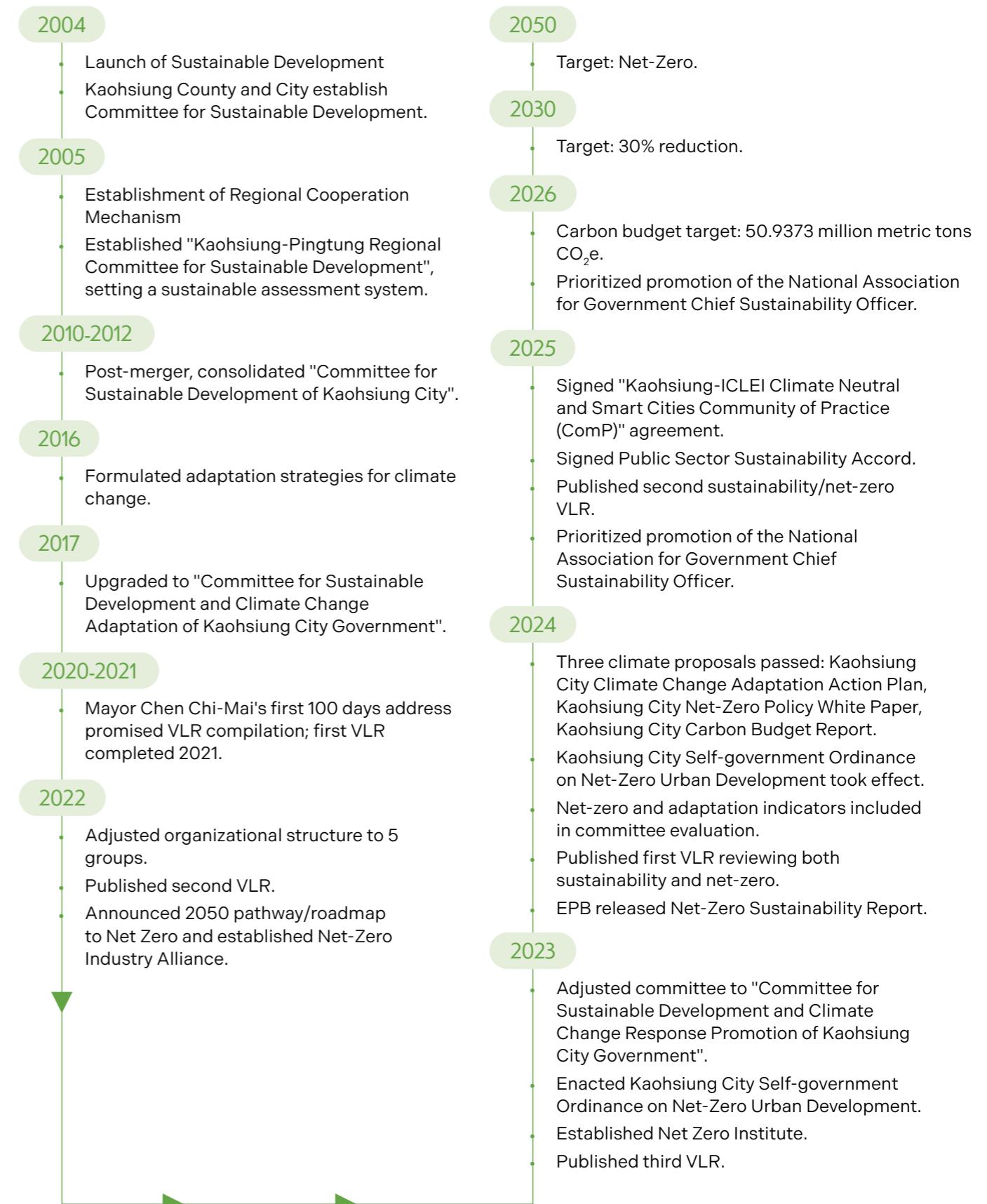
In 2024, Kaohsiung passed the Kaohsiung City Self-government Ordinance on Net-Zero Urban Development, providing a legal framework for the net-zero transition. Simultaneously, the Kaohsiung City Net-Zero Policy White Paper and Kaohsiung City Climate Change Adaptation Action Plan were released, systematically planning mitigation and adaptation paths. Governance tools like the carbon budget system were introduced. In 2025, the city signed the Public Sector Sustainability Accord with the Taiwan Institute of Sustainable Energy (TAISE), pledging commitments to institutional governance, social impact, and energy transition, echoing SDG 17 (Partnerships).

Through these phased actions — from early awareness and governance refinement to legal frameworks, policy tools, and multi-stakeholder partnerships — Kaohsiung City continues to deepen its commitment to environmental sustainability and urban resilience, demonstrating evolving strategies toward a livable, low-carbon, resilient international city.

❶ Kaohsiung City's Sustainable Development Promotion Process

▶ **Kaohsiung City's Sustainable Development Promotion Process and Phased Goals.**

2004
Launch of Sustainable Development
Kaohsiung County and City establish Committee for Sustainable Development.

2005
Establishment of Regional Cooperation Mechanism
Established "Kaohsiung-Pingtung Regional Committee for Sustainable Development", setting a sustainable assessment system.

2010-2012
Post-merger, consolidated "Committee for Sustainable Development of Kaohsiung City".

2016
Formulated adaptation strategies for climate change.

2017
Upgraded to "Committee for Sustainable Development and Climate Change Adaptation of Kaohsiung City Government".

2020-2021
Mayor Chen Chi-Mai's first 100 days address promised VLR compilation; first VLR completed 2021.

2022
Adjusted organizational structure to 5 groups.
Published second VLR.
Announced 2050 pathway/roadmap to Net Zero and established Net-Zero Industry Alliance.

2050
Target: Net-Zero.

2030
Target: 30% reduction.

2026
Carbon budget target: 50.9373 million metric tons CO_2e.
Prioritized promotion of the National Association for Government Chief Sustainability Officer.

2025
Signed "Kaohsiung-ICLEI Climate Neutral and Smart Cities Community of Practice (ComP)" agreement.
Signed Public Sector Sustainability Accord.
Published second sustainability/net-zero VLR.
Prioritized promotion of the National Association for Government Chief Sustainability Officer.

2024
Three climate proposals passed: Kaohsiung City Climate Change Adaptation Action Plan, Kaohsiung City Net-Zero Policy White Paper, Kaohsiung City Carbon Budget Report.
Kaohsiung City Self-government Ordinance on Net-Zero Urban Development took effect.
Net-zero and adaptation indicators included in committee evaluation.
Published first VLR reviewing both sustainability and net-zero.
EPB released Net-Zero Sustainability Report.

2023
Adjusted committee to "Committee for Sustainable Development and Climate Change Response Promotion of Kaohsiung City Government".
Enacted Kaohsiung City Self-government Ordinance on Net-Zero Urban Development.
Established Net Zero Institute.
Published third VLR.

❷ Current Status of Kaohsiung City's Greenhouse Gas Emissions and 2050 Net-Zero Context

In 2023, Kaohsiung's net GHG emissions were 49.52 million metric tons, the lowest on record (verified by BSI) and a 25% reduction from the 2005 baseline. This accounts for about one-fifth of the national total. The industrial sector is the main source (81%), followed by residential/commercial (10%) and transportation (7%). The 2023 reduction was primarily from the industrial sector (96.9%), reflecting energy transition and efficiency, while transportation also saw reductions from electrification. The city will continue promoting the third-phase reduction plan toward the 2030 target (30% reduction).

▶ Kaohsiung City's Historical Greenhouse Gas Emission Trends

Sector:
- Residential & Commercial, and Agricultural Energy
- Industrial Energy
- Process Industry
- Transportation Energy
- Waste
- Agricultural
- Net Emission
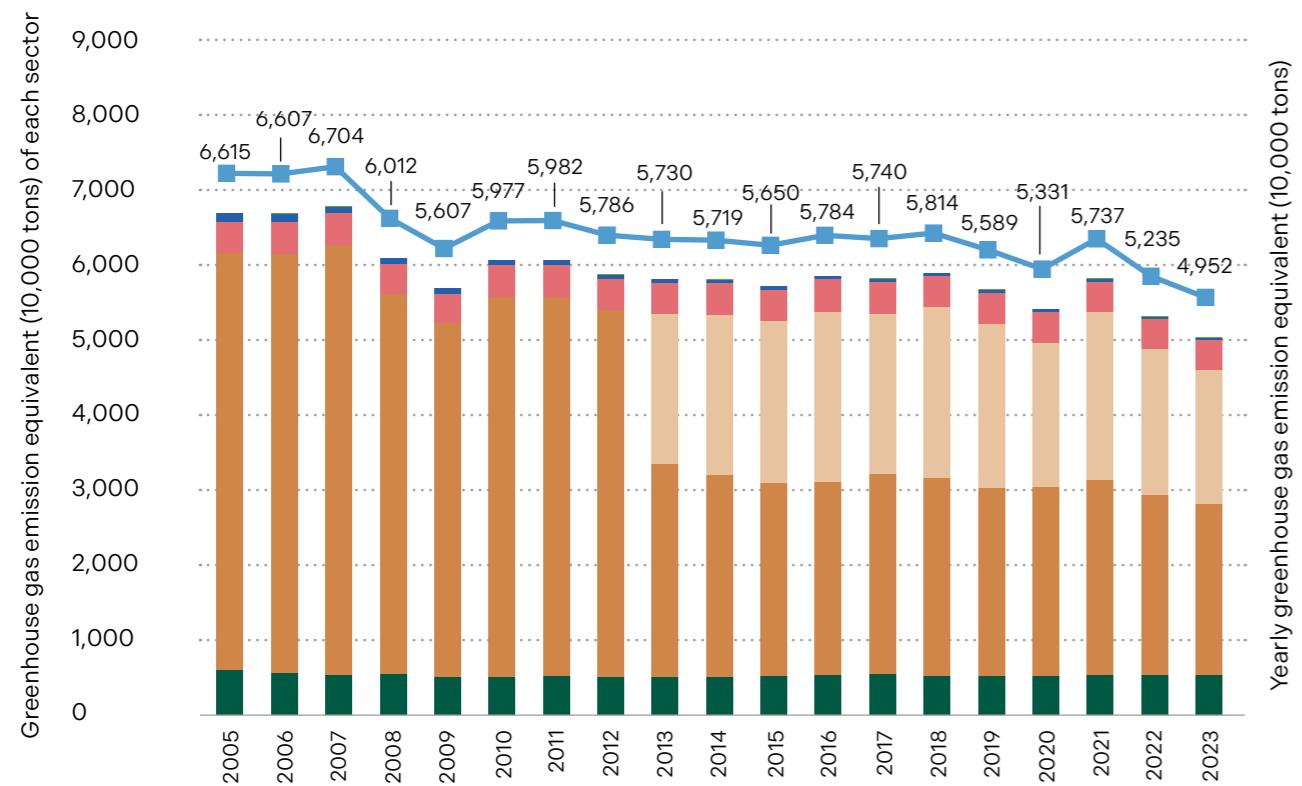
To advance towards net-zero, Kaohsiung is promoting nine major transition aspects: energy, industrial, transportation, residential/commercial, agricultural, environmental, net-zero green lifestyle, carbon sinks, and just transition. Checkpoints are set for 2026 (short-term) and 2030 (medium-term), referencing Taiwan's 2050 pathway and the Kaohsiung City Self-government Ordinance on Net-Zero Urban Development. The Kaohsiung City Carbon Budget Report, passed in 2025, officially set the 2026 reduction target at 50.9373 million metric tons CO_2e (23% reduction), the 2030 target at 30% reduction, and the 2050 net-zero goal.

▶ Kaohsiung City's Net-Zero Pathway - Analysis and Path Planning for 2050 Reduction Target

Environment & Agriculture | Transportation | Residence & Commerce | Manufacturing | Carbon Sink

year	Emissions	caption
2005	66.14 million metric tons of CO_2e	base year
2023	49.52 million metric tons of CO_2e	Verified net GHG emissions have achieved a 25.1% reduction
	Established in 2024: Kaohsiung City Net-Zero Policy White Paper and Kaohsiung City Carbon Budget Report	
2026	50.9373 million metric tons of CO_2e, A reduction target of 23%.	Kaohsiung City Carbon Budget Planning Targets
2030	46.298 million metric tons of CO_2e, A reduction target of 30%.	Kaohsiung City Self-government Ordinance on Net-Zero Urban Development Reduction target

The carbon budget target for 2026 is 50.9373 million tons.

A 30% reduction in carbon emissions by 2030, with an emission target of 46.298 tons.

Achieve net-zero target by 2050
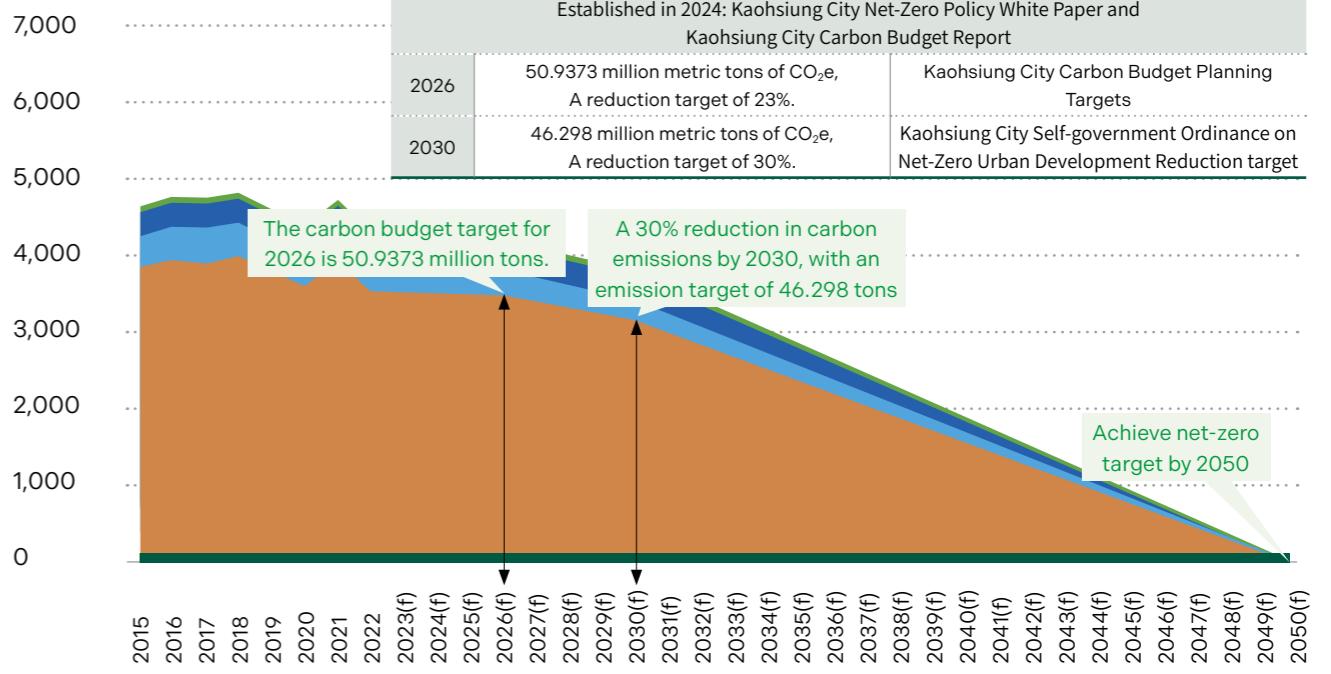
Short-term Goal (by 2026)

Achieving Low Carbon

To meet the 2026 low-carbon goal, Kaohsiung employs governance tools like carbon budgets and emission caps across the nine transition aspects. Since joining the "Powering Past Coal Alliance, PPCA" in 2020, the city has promoted coal reduction policies (aiming for 3.8 million tons), including the Hsinta Power Plant's seasonal shutdown, and initiated a 5% hydrogen blending in gas-fired power generation plan. The carbon budget system mandates reduction in new developments, the Net-Zero Industry Alliance drives supply chain collaboration, and the Net Zero Institute cultivates talent.

Medium and Long-term Goals (2030 to 2050)

Moving Towards Zero Carbon

To achieve the 30% reduction (2030) and net-zero (2050) goals, the city is developing a voluntary carbon credit mechanism and localized natural carbon sink methodologies. In the residential/commercial sector, the focus is on net-zero buildings and deep energy conservation through new standards and efficiency upgrades. In transportation, the strategy involves electrifying fuel vehicles (public and private) and increasing mass transit usage. High-emission industries are encouraged to cooperate on ESG actions, while leading corporations like Formosa Plastics Corporation (FPC), CPC Corporation, Taiwan, and China Steel Corporation (CSC) are independently promoting technologies like Hydrogen Applications, CCUS, and the steel and chemicals co-production pilot plant, driving a systematic urban transformation toward a sustainable, net-zero city.

3

A New Course for Sustainability

1. Governance and Implementation Mechanisms of the National Association for Government Chief Sustainability Officers

To embed sustainable development as an intrinsic driver of national progress, Taiwan has drawn on global trends and corporate best practices to establish an innovative system, the National Association for Government Chief Sustainability Officers. The core purpose of this system is to strengthen the government's governance capacity for sustainable development and to lead society in a more systemic transition toward a shared net-zero future.

❶ Composition and Governance Structure of the Association

To firmly root sustainability within the government, the Executive Yuan established the National Association for Government Chief Sustainability Officers in August 2024. Under this system, deputy heads of government agencies concurrently serve as Chief Sustainability Officers, responsible for guiding policy direction and integrating resources to drive systemic transformation across the Environment (E), Society (S), and Governance (G) domains. The governance structure of the Association strategically encompasses three major groups — the central government, local governments, and state-owned enterprises:

• Central government	• Local government	• State-Owned Enterprises
led by the Vice Premier of the Executive Yuan, and joined by the deputy ministers of key ministries, ensuring that sustainability becomes a top national policy priority.	The deputy heads of county and city governments serve as Chief Sustainability Officers, aligning national objectives with local conditions to develop tailored action plans.	Key enterprises such as Taiwan Power Company (TPC) and CPC Corporation, Taiwan, are included to leverage their influence in energy and resource management, accelerating the net-zero transition and the adoption of circular economy practices.

To facilitate effective collaboration, the Association organizes activities such as consensus camps to build shared understanding among central and local governments and state-owned enterprises, foster trust, and enable the exchange of experiences. Only then will it ensure synchronized, collaborative progress toward sustainability.

❷ Five Core Tasks

The National Association for Government Chief Sustainability Officers carries the critical mission of advancing Taiwan's sustainability transition. Its governance responsibilities can be summarized into five core tasks that form a comprehensive framework that spans internal governance, inter-agency collaboration, cultural transformation, regulatory integration, and long-term system implementation.

In support of this governance approach, Kaohsiung City, led by Deputy Mayor and Chief Sustainability Officer Lo Ta-Sheng, oversees the city's sustainability policies and cross-departmental coordination. Deputy Mayor Lo actively participates in the national platform, establishing Kaohsiung's governance model for horizontal integration and vertical implementation, aligning central policy direction with local actions.

It is worth noting that Kaohsiung began advancing sustainable policies as early as 2004, laying a solid foundation for long-term development. The city also established the Committee for Sustainable Development and Climate Change Response Promotion of Kaohsiung City Government, which provides a complete governance framework and convenes annual sustainability meetings to review and monitor all sustainability indexes. With years of practical experience and institutional development, Kaohsiung implemented preventive measures before the establishment of the Association's system and has been proactively promoting net-zero policies and actions, demonstrating leadership in local governance and policy innovation.

- **Strengthening Sustainable Governance Capacity**
  To enhance its governance capacity for sustainable development, Kaohsiung formulated a long-term strategy through the Net-Zero Policy White Paper and established Taiwan's first Net-Zero Academy to cultivate professional talents. In addition to conducting the nation's only five consecutive years of VLR reporting, the city has also developed the Sustainability Indexes Integration Platform to improve decision-making efficiency. Furthermore, it adopted the municipal carbon budget as a governance tool, establishing a comprehensive system across strategy, talent, and data.

- **Integrating Sustainability Affairs Across Agencies**
  To break down traditional administrative silos, Kaohsiung systematically integrates sustainability-related responsibilities previously dispersed across departments, thereby maximizing resource synergy. The city established the Committee for Sustainable Development and Climate Change Response Promotion of Kaohsiung City Government, chaired by the Mayor, as the central coordinating body that integrates cross-departmental resources and actions. This mechanism ensures consistent policy implementation on complex issues such as climate resilience and energy transition through effective interdepartmental coordination.

- **Promoting Cultural Transformation and Innovative Thinking**
  Sustainability transition is fundamentally a cultural shift within organizations. Kaohsiung has demonstrated a strong commitment to reform through diverse and innovative initiatives. For example, the establishment of the Net-Zero Academy, which cultivates interdisciplinary net-zero professionals, while forums and workshops held promote cross-sector engagement and public participation, progressively building a shared societal culture of net-zero action. Furthermore, the city also implements the public-sector carbon credit program, which plans measurable, verifiable carbon-reduction actions across sectors, including transportation, housing, commercial, and carbon sinks. And by positioning the public sector as a role model, Kaohsiung encourages the private sector to follow suit. These innovative practices align with the Association's focus on cultural innovation and regulatory implementation, reinforcing shared societal values of net zero and ensuring that actions are institutionalized and sustained over time.

- **Strengthening Public–Private Partnerships**

  The Kaohsiung City Government serves as a bridge within society, proactively fostering partnerships with the private sector and civil society. The city-established Industry Net-Zero Alliance is an apparent significant highlight, marking a shift from the government's past regulatory role to a collaborative partner with leading local enterprises. Through this platform, the city facilitates business matchmaking events for carbon-reduction technologies and resource sharing, deepening collaboration with industry partners.

- **Fulfilling Statutory Responsibilities Under the Climate Change Response Act**

  To carry out the statutory responsibilities of "mitigation" and "adaptation" outlined in the Climate Change Response Act, Kaohsiung implements measures based on the Kaohsiung City Self-government Ordinance on Net-Zero Urban Development to promote source-based carbon reduction initiatives and convert regulatory requirements into concrete actions — such as the construction of retention ponds and the promotion of Kaohsiung LOHAS buildings — to build a comprehensive urban climate-adaptation s framework.

❸ **Action Items of the Association**

To operationalize the five core tasks, the National Association for Government Chief Sustainability Officers has identified a set of action items for all public-sector agencies nationwide. Kaohsiung has taken proactive steps, achieving forward-looking progress across multiple fields and transforming national policy directives into tangible outcomes at the local level. Future results can be reviewed through this review, which will serve as a key reference for policy adjustments and resource allocation. This process will enable agencies to continuously refine their strategies and improve implementation performance, creating a comprehensive Plan-Do-Check-Act (PDCA) governance cycle.

▶ **Action Items, Key Objectives, and Implementation Approaches of the Chief Sustainability Officers Alliances**

1

Completing Internal Greenhouse Gas (GHG) Inventory verification

Key Objectives

From 2024 to 2026, each first-level agency of the City Government shall complete at least one organizational carbon footprint verification.

Implementation Approaches

- Since 2013, Kaohsiung City has conducted annual GHG inventory verifications for government agencies, including 542 units — first and second-level agencies, schools, and district offices. Its total emissions for 2023 amounted to 330,000 tCO_2e.
- To ensure data accuracy and reliability, the City completed third-party verification of the organizational carbon footprint in 2024 for the following buildings: the Sihwei Administration Center (4,678 tCO_2e), the Fongshan Administration Center (2,304 tCO_2e), and the headquarter of the Environmental Protection Bureau (666 tCO_2e).
- Additional training on organizational carbon footprint verification will be provided, with support from the Environmental Protection Bureau (EPB) for all agencies in their implementation. All aggregated GHG emissions data will be disclosed on agency websites or other official platforms to ensure transparency of information.

2

Implementing In-Depth Energy-Saving Diagnostics

Key Objectives

Starting in 2025, affiliated schools and agencies of the city government shall aim to achieve an annual increase in energy savings of 1% over the previous year.

Implementation Approaches

- Agencies shall regularly report and review their electricity consumption using the Kaohsiung City Government and Affiliated Institutions and Schools Energy Reporting System.
- The Economic Development Bureau tracks units that experience over 10% growth in electricity usage each quarter and conducts on-site energy-saving diagnostics and guidance for at least five agencies or schools annually. The Bureau will organize ESCO Energy Technology Service Seminars and business matchmaking events to promote collaboration between the public and private sectors.

3

Promoting Electrification of Government Vehicles

Key Objectives

Achieve full electrification of government motorcycles by 2030 and government automobiles by 2040.

Implementation Approaches

- Government Motorcycles: The baseline for the end of 2024 is set at 2,801 motorcycles, with a planned electrification rate of 46.9% (approximately 1,314 motorcycles) by 2026.
- Government Automobiles: The baseline for the end of 2024 is set at 597 automobiles, with a planned electrification rate of 3.9% (approx. 23 automobiles) by 2026.

4

Implementing Internal Building Energy Efficiency Rating

Key Objectives

In alignment with the national net-zero building pathway, all newly constructed public buildings will be required to obtain an energy efficiency rating, progressively achieving the near-zero carbon building target of Level 1 or above.

Implementation Approaches

- Phased implementation for new buildings: Beginning in 2023, when seeking Green Building certification, developers of new public buildings must also submit a Building Energy Efficiency Assessment at Level 2 or higher. The standards for this assessment will be raised annually.
- Benchmark project: Successful examples are the Liouguei Administration Center (Level 1 Energy Efficiency Rating) and the Nanzih Yuan Jhong Police Station (Level 2 Energy Efficiency Rating), both of which have been awarded certificates of candidacy for energy efficiency.
- Improvements to existing buildings: Agencies responsible for building maintenance will prioritize upgrading air-conditioning, lighting, and other equipment to improve energy efficiency.
- Successful Example: In 2023, the Environmental Protection Bureau (EPB) building completed a Building Energy Efficiency Assessment, receiving Level 6, and plans to progressively replace outdated, energy-intensive equipment to reach Level 3 or below.

5

Strengthening Green Procurement Capacity

Key Objectives

By 2025, the compliance rate for designated green procurement items among government agencies shall reach 99.8%.

Implementation Approaches

- Implementation follows the 2025 Guidelines for the Performance Evaluation of Green Procurement by Government Agencies, which require designated procurement items to be certified under Green Mark.
- In 2024, the compliance rate for green procurement reached 99.7%. To further improve performance, quarterly reviews of agency procurement statistics will be conducted, with common error types compiled and communicated to all agencies to prevent recurrence.
- The electrification of official vehicles for agency heads and deputies will be expedited and included in the evaluation criteria.

2. Collaborative Accomplishments

Over the past year, Kaohsiung City Government has dedicated significant effort across the economy, environment, and society — promoting industrial prosperity, safeguarding the local environment, and strengthening social care in every corner of the city. The recognitions received in 2024 stand as concrete validation of these efforts and represent achievements shared by all citizens. These accomplishments demonstrate public affirmation of the city government's policies and reinforce our commitment to building a sustainable homeland worthy of future generations.

❶ Key Governance Highlights of 2024

- ☑ Kaohsiung's unemployment rate declined to 3.3% in 2024, the lowest among the six metropolitan cities.
- ☑ Total sales revenue of profit-seeking enterprises in Kaohsiung reached NT$6.05 trillion, a 34% increase compared to 2020.
- ☑ Rental rates for social housing were reduced to 50% of the market price for disadvantaged households and 75% for general households.
- ☑ Annual ridership of the circular light rail reached 12.58 million passengers.
- ☑ The Youth Development Program invested over NT$12.5 billion to support youth development.
- ☑ The 2024 Kaohsiung Wonderland attracted 6 million visitors, generating more than NT$10 billion in economic benefits.
- ☑ Kaohsiung hosted 157 concerts, generating approximately NT$5.7 billion in economic output.
- ☑ TSMC to build advanced semiconductor plant in Kaohsiung Nanzih Technology Industrial Park, which is expected to create 36,000 jobs.
- ☑ Ciaotou Science Park is expected to generate NT$180 billion worth of economic output and 11,000 jobs.
- ☑ Renwu Industrial Park, focusing on aerospace precision machinery, is expected to generate NT$24.2 billion in economic output and 6,300 jobs.
- ☑ Kaohsiung achieved zero borrowing for four consecutive years, reducing overall debt by NT$20.1 billion.
- ☑ Kaohsiung received 302 domestic and international awards in 2024.
- ☑ Exports of pineapples to Japan grew by 55% year-on-year.

❷ 2024 Awards for Sustainability and Net-Zero Achievements

- ☑ TEPU Evaluation of Sustainable Environmental Policies: ranked as Excellence for two consecutive years
- ☑ 2024 Sustainable City SDGs Survey – achieved No. 1 nationwide in Local Fiscal Performance
- ☑ 2024 Sustainable Cities SDGs Survey – Sustainable City–High Distinction Award
- ☑ 2024 Sustainable Cities SDGs Survey – Outstanding Award in Economics
- ☑ 2024 Sustainable Cities SDGs Survey – Outstanding Award in Environment
- ☑ 2024 Sustainable Cities SDGs Survey – Sustainable Innovation – Environmental Award
- ☑ 2024 Sustainable Cities SDGs Survey – Best Age-Friendly City Award
- ☑ 2024 CommonWealth Magazine – City of Excellence Award
- ☑ 2024 CommonWealth City Happiness Survey – Ranked No. 1 (two consecutive years)
- ☑ Environmental Protection Bureau's Net-Zero Institute received the 2024 National Sustainable Development Award

3. Public Sector Sustainability Joint Initiative

In June 2025, the City of Kaohsiung and the Taiwan Institute for Sustainable Energy (TAISE) jointly signed the Public Sector Sustainability Accord, demonstrating the city's strong commitment to sustainable development and net-zero transformation. Mayor Chen Chi-Mai signed the Accord on behalf of the city government, with Deputy Mayor and Chief Sustainability Officer Lo Ta-Sheng and heads of all bureaus and departments in attendance. This reflected the administration's unified consensus and determination towards sustainability.

The Accord outlines three main directions:

1. Strengthening institutional governance by establishing sustainability task forces and fulfilling accountability through regular publication of VLRs.
2. Expanding social impact by promoting inclusiveness, equity, and global partnerships.
3. Advancing environmental sustainability through energy transition and carbon-neutral actions.

This public signing not only aligns with the objectives of the National Association for Government Chief Sustainability Officers but also further highlights Kaohsiung's leading role in sustainable governance. As a pioneer among local governments, Kaohsiung has already demonstrated practical applications that embody the Association's principles.
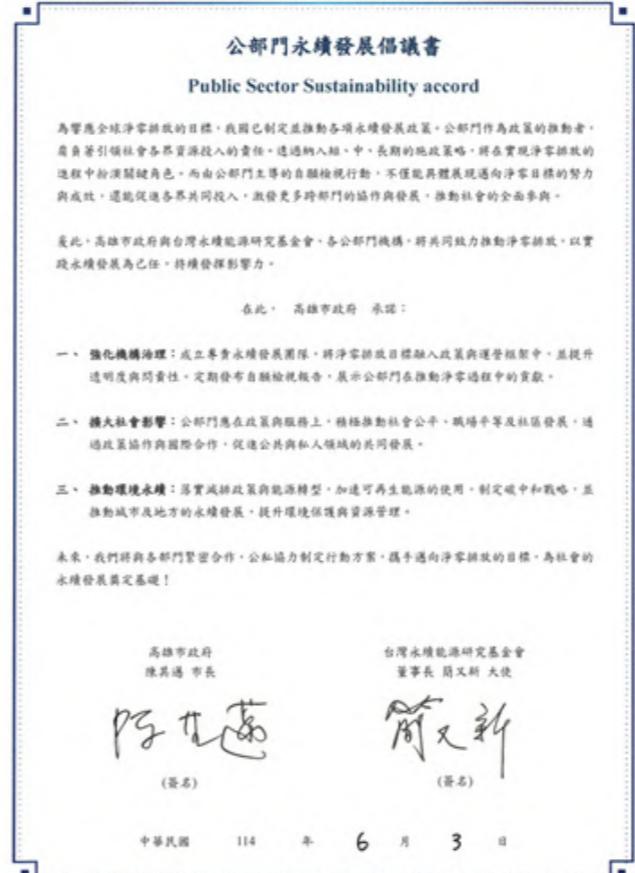

Kaohsiung City signing the Public Sector Sustainability Accord
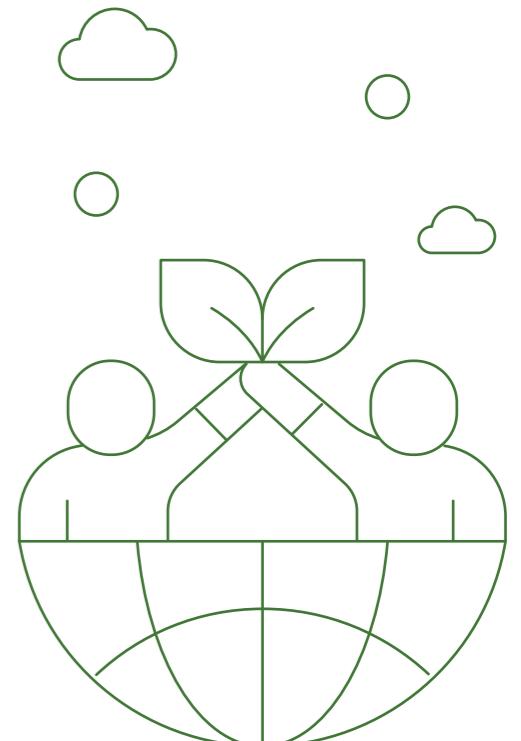

Contents of the Public Sector Sustainability Accord

4

Methodology for the Voluntary Local Review

1. Overview of the UN-Habitat Review Methodology

The United Nations Human Settlements Programme (UN-HABITAT) released the Action-Oriented Voluntary Local Reviews in 2024, presenting a methodological framework comprising five cyclical work stages, three corresponding work components, and several cross-cutting considerations relevant to all stages. It serves as a valuable reference for cities as they compile their VLRs.

For the compilation of Kaohsiung City's 2025 VLR, we adopted this methodology and integrated it with the ISO-aligned continuous improvement management tool, the Plan-Do-Check-Act (PDCA) cycle. Based on the implementation progress and circumstances of the Committee for Sustainable Development and Climate Change Response Promotion of Kaohsiung City Government, the city adapted these methods and transformed them into five localized stages, with corresponding PDCA procedures, to ensure that sustainability policies are fully and effectively implemented.

▶ **2025 Kaohsiung City Net-Zero Voluntary Local Review Inspection Method**
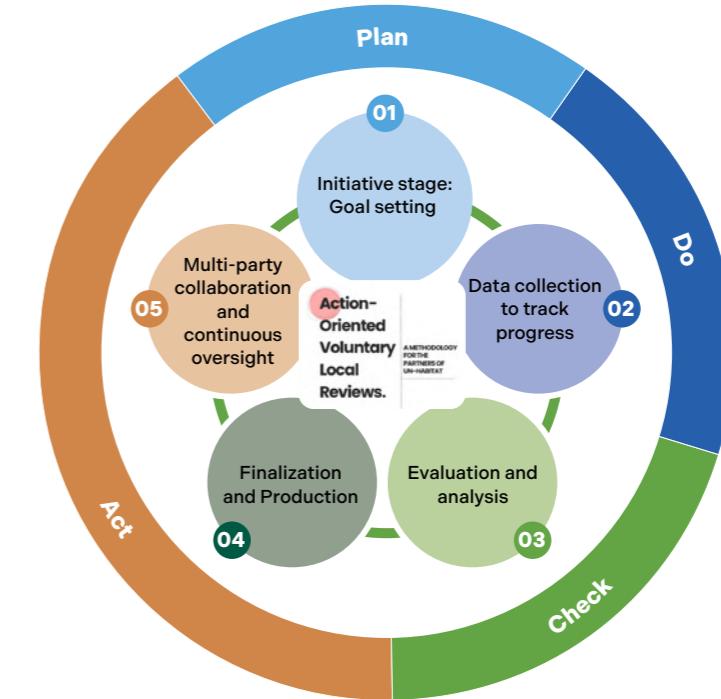
01 Initiation – Defining Objectives   Plan

The VLR drafting team helped organize meetings for five working groups under the Committee for Sustainable Development and Climate Change Response Promotion (hereinafter referred to as the Committee). Following the official implementation of the Kaohsiung City Self-government Ordinance on Net-Zero Urban Development, the Environmental Protection Bureau directed that the VLR should address both sustainability and net-zero topics. As a result, the review has been titled "2025 Kaohsiung City Voluntary Local Review."

02 Data Collection – Tracking Progress   Do

The Committee reviewed and updated the achievements of over 161 sustainability indexes through its five working groups. Data from the 2024 results was collected from various bureaus and departments, including progress on the initiatives outlined in the Net-Zero Policy White Paper, while ensuring that all work proceeded on schedule.

03 Evaluation and Analysis   Cheak

Upon completion of the VLR draft, in addition to publishing the full review on the city's website, our team will also convene cross-departmental and expert consultation meetings to gather feedback from a range of stakeholders. This input will then be systematically reviewed and used to make revisions, ensuring that the review accurately reflects stakeholder expectations and fosters ongoing public oversight and participation in shaping the future of Kaohsiung City.

04 Finalization and Production   Act

While the Chinese version of the Voluntary Local Review (VLR) undergoes graphic design, the team will simultaneously begin the English translation of the review to engage future opportunities for international exchange regarding urban sustainability policies. Once finalized, the bilingual VLR will be published as an e-book on the Kaohsiung City Climate Change and Sustainability Action Website. Additionally, it will be submitted to the Executive Yuan's National Council for Sustainable Development and the Institute for Global Environmental Strategies' VLR Lab for publication, joining more than 80 cities worldwide in promoting the localized implementation of sustainable development.

05 Multi-party Sharing and Continuous Management and Evaluation

Kaohsiung City will continue to conduct internal management and evaluation of its sustainable goals through the Committee. Through public disclosure, the City will continuously review and refine the progress of goal achievement. In addition, Kaohsiung City will share its experiences in compiling the VLR and implementing local sustainability goals.

2. Stakeholder Survey

To fully implement the core spirit of Collaborative Sustainability, the Kaohsiung City Government is committed to building its sustainable development blueprint on in-depth dialogue with all stakeholders. To this end, the government has planned three major stages — from identifying stakeholders to discerning issues, and finally actual survey implementation.

This survey process was conducted primarily through questionnaires. The survey results not only directly reflect the voices of citizens and various sectors, but also form the core narrative of this Voluntary Local Review (VLR). The subsequent chapters on Sustainability Voluntary Review will focus on the major sustainability issues identified in this survey and will present the City Government's corresponding strategies and performance accordingly, ensuring that the narrative in this VLR is highly aligned with stakeholder concerns; furthermore, the influence of this analytical outcome goes beyond the VLR itself; it will also serve as an indispensable reference for the City Government team when formulating future policies and adjusting resource priorities, thereby concretely fulfilling our governance commitment to Collaborative Sustainability.

❶ Stakeholder Survey process and methods

• **Stakeholder Identification**

In order to comprehensively and systematically identify the groups related to the sustainable development of the city, this City referenced the widely adopted international AA1000 Stakeholder Engagement Standard (AA1000 SES: 2015). Following its five recommended principles — Dependency, Responsibility, Tension, Diverse perspectives, and Influence, the City ultimately identified six major categories of stakeholders: government agencies, local industries, academic research institutions, nonprofit organizations (NPO/NGO), the general public, and the city council (elected representatives). Through this comprehensive categorization, the City concretely implements the United Nations' sustainability principle of "Leave no one behind," ensuring that subsequent opinion-gathering processes incorporate perspectives from different fields including industry, government, academia, research institutes, and society. This approach strengthens both the inclusiveness and representativeness of the communication process.

• **Discern issues**

To ensure that the collection of opinions focuses on key issues, the City Government team used its internal management and evaluation of 161 sustainable development goals as the foundation. Through integration and assessment conducted jointly by the City Government and experts, a total of 34 sustainability issues were distilled, covering seven major aspects such as environmental protection, transportation, economy, and social welfare. This process — from a broad set of goals to a focused set of issues — enhanced the scientific rigor of issue identification and enabled the subsequent questionnaire design to more precisely address the core concerns of stakeholders.

• **Survey Implementation and Opinion Collection**

This year's opinion-gathering process centered on a questionnaire survey conducted through multiple channels. In designing the questionnaire, basic background information of respondents was collected, and the core questions included the respondents' level of understanding of the UN SDGs. Respondents were also invited to select the five issues they cared about most from the list of 34 key issues, and an open-ended question was provided to allow respondents to offer more constructive suggestions. To ensure the questionnaire effectively reached different groups of stakeholders, the City adopted a hybrid distribution strategy. Questionnaires were disseminated through various departments to communicate directly with different types of stakeholders; social media was also widely used to reach academia, civic groups, and the general public. In addition, official documents, emails, and other channels were employed to maximize the breadth and diversity of opinion collection.

❷ Stakeholder Survey Results

The Voluntary Local Review relies on the joint participation of multiple stakeholders. This year, the City convened interdepartmental consultation meetings and distributed the questionnaire to each department and office for assistance in completing it. Feedback and opinions from a wide range of stakeholders were also collected through an online questionnaire shared via a post on the Environmental Protection Bureau Kaohsiung City Government's Facebook page. In addition, each department and office distributed the questionnaire to the stakeholders they engage with. The collected information was then used to evaluate and analyze the contents of the Voluntary Local Review. A total of 902 valid responses were received.

• **Percentage of Stakeholders**

To ensure that sustainability policies can respond to diverse expectations, this questionnaire benefited from the joint participation of stakeholders from various sectors. Among all respondents, "Government agencies" accounted for the largest share at 47%, followed by "General public/City council (elected representatives)" at 37%. The strong engagement from these two major groups formed the core foundation of this survey, fully representing both the internal perspectives of the public sector and the external expectations of citizens. At the same time, the professional opinions contributed by "Business representatives," "Academia/Researchers," and "Non-governmental organizations/Civic groups" were also vital. Together, these three groups accounted for 15% of all responses, injecting broader professional and practical viewpoints into the analysis and enhancing the representativeness and reference value of the survey results.

▶ **Percentage of Stakeholders**

Pie chart: Government Agency 47%, General public/City council (elected representatives) 37%, Corporate Representative 5%, Academia/Researcher 5%, Non-Governmental Organization/Civic Group 5%.

Legend:
- Government Agency
- General public/ City council (elected representatives)
- Corporate Representative
- Academia/ Researcher
- Non-Governmental Organization/ Civic Group
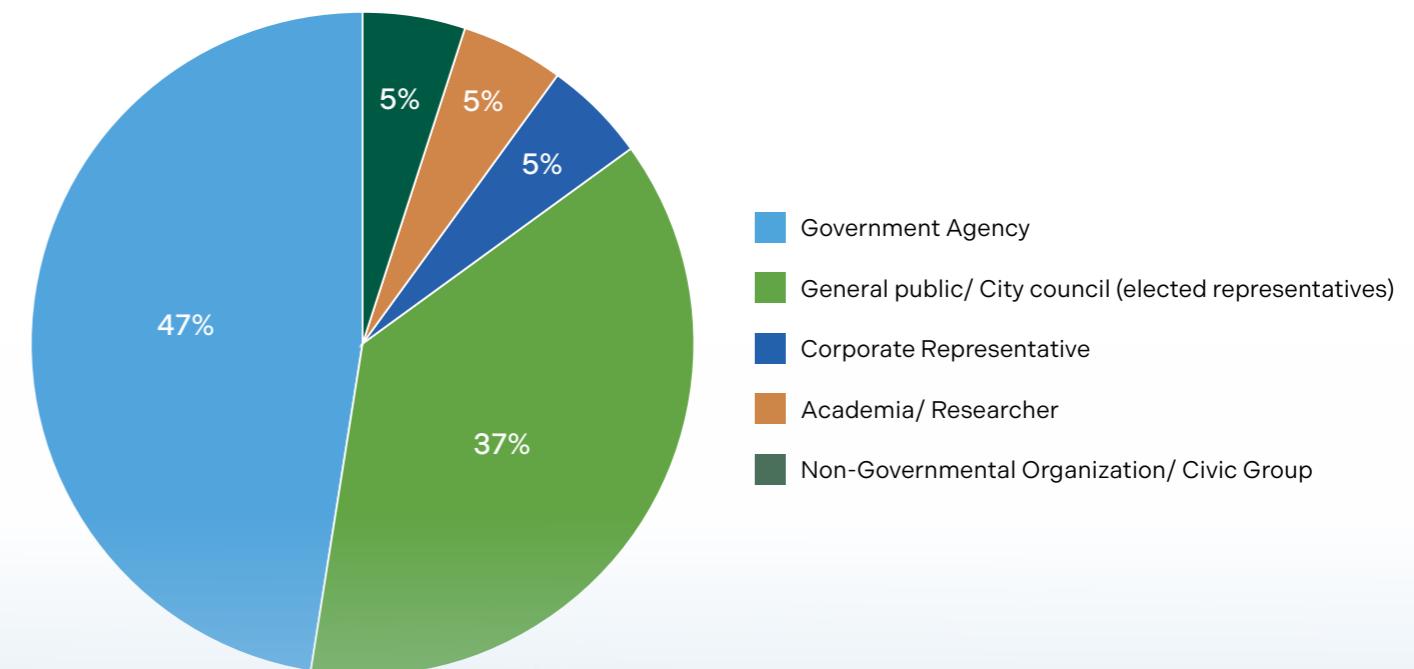
- **Weighted analysis**

The stakeholders included in this questionnaire survey comprised general public/city council (elected representatives), government agencies, business representatives, academia, and NPO/NGO groups. To uphold the United Nations' principle of "Leave no one behind" and to address the issue of minority opinions being diluted due to uneven sample distribution, the analysis adopted the weighted average method. The purpose of this method is to assign each stakeholder group an equal total weight, rather than determining the level of concern based on the number of samples they contribute. First, the proportion of concern for each issue within an individual group was calculated and used as the group's "representative score." These representative scores from all groups were then averaged to derive the final weighted score for each issue. This approach ensures that groups with smaller sample sizes — such as business representatives or academia — have influence equal to those with larger sample sizes, effectively eliminating the risk of diluted issue relevance caused by sample size disparities. It allows issues that are critical to specific sectors to be highlighted fairly, thereby enhancing the credibility of the report and its value for decision-making.

- **Analysis results**

To gain a deeper understanding of stakeholders' key concerns regarding sustainability issues, this survey analyzed 34 major issues identified from multiple existing sustainability goals in Kaohsiung City. Based on the weighted analysis results, the top five issues of greatest concern across all stakeholders were, in order: Air Quality Monitoring and Maintenance (SDG 11), Energy Efficiency and Renewable Energy (SDG 7), Water Resource Use and Wastewater Management (SDG 6), Land and Water Environmental Protection (SDG 6), and Support for Disadvantaged Education and Economy (SDG 1).
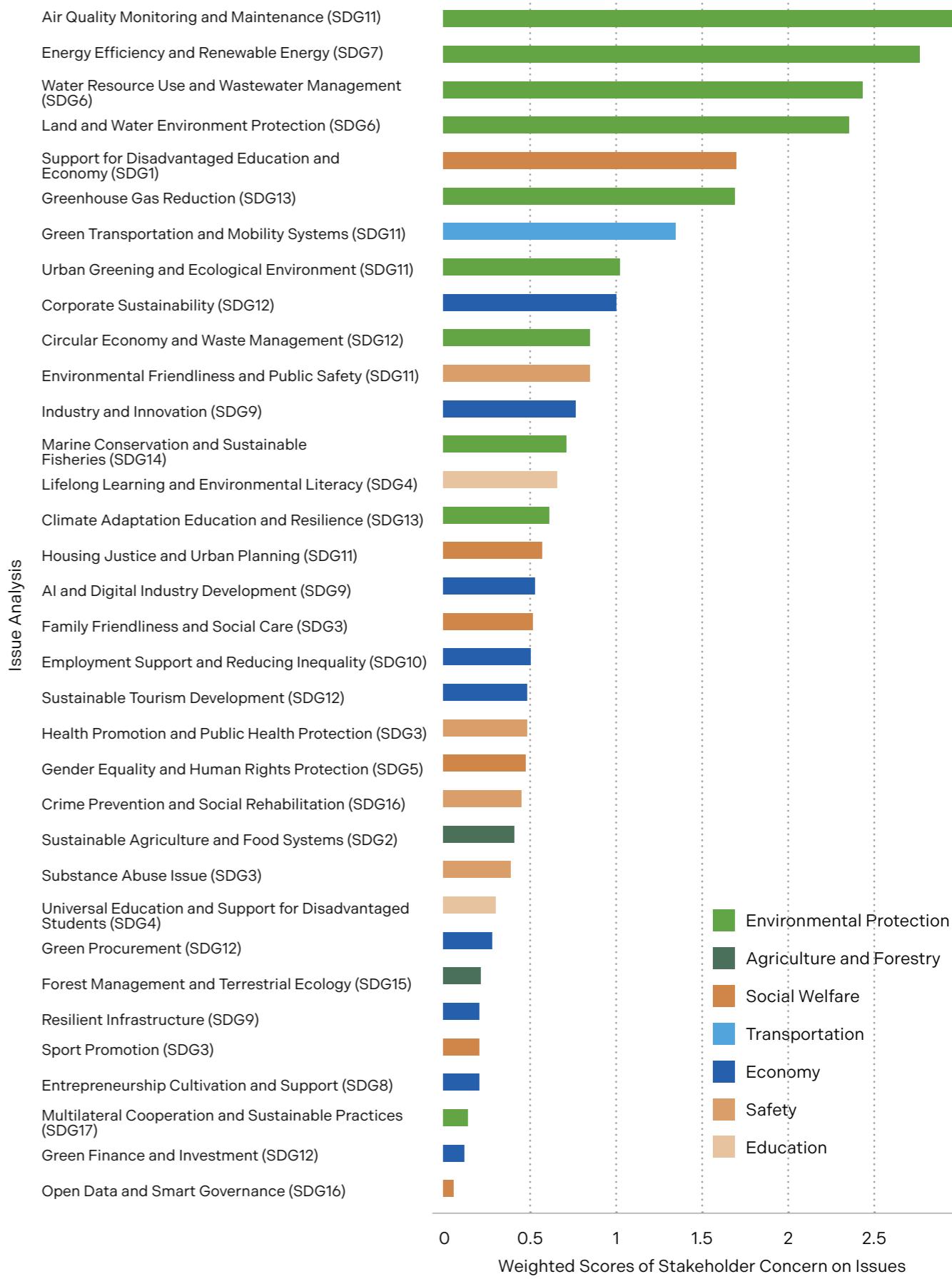
The results indicate that the issues receiving the highest attention were primarily environmental aspects, particularly fundamental elements closely related to citizens' daily lives, such as air, water, and energy. Following these were issues combining social equity and livelihood-economic concerns, such as support for vulnerable groups, greenhouse gas reduction, and green transportation. This shows that stakeholders expect that while pursuing environmental sustainability, social inclusiveness and resilient development should also be ensured. The findings of this survey clearly depict the public's focus as Kaohsiung City moves toward sustainable development and will serve as a key foundation for the subsequent chapters addressing strategies and action plans. The chapter titled "Voluntary Sustainability Review " will be organized based on the survey results, highlighting the highest-ranked issues all 17 SDGs. In this VLR, these 17 major issues are categorized into four overarching themes:

▶ **Four major thematic categories of materiality**

01 Sustainable Governance and Partnerships

- Entrepreneurship Cultivation and Support
- Industry and Innovation
- Multilateral Cooperation and Sustainable Practices

02 Green Transition and Climate Action

- Energy Efficiency and Renewable Energy
- Air Quality Monitoring and Maintenance
- Marine Conservation and Sustainable Fisheries
- Forest Management and Terrestrial Ecology

03 Smart City and Life Resilience

- Sustainable Agriculture and Food Systems
- Water Resource Use and Wastewater Management
- Climate Adaptation Education and Resilience

04 Social inclusion and public participation

- Support for Disadvantaged Education and Economy
- Family Friendliness and Social Care
- Lifelong Learning and Environmental Literacy
- Gender Equality and Human Rights Protections
- Employment Support and Reducing Inequality
- Crime Prevention and Social Recovery

▶ **Stakeholder Issues Attention**

Analysis of Major Sustainability Issues in Kaohsiung City

Issue Analysis (vertical axis)

- Air Quality Monitoring and Maintenance (SDG11)
- Energy Efficiency and Renewable Energy (SDG7)
- Water Resource Use and Wastewater Management (SDG6)
- Land and Water Environment Protection (SDG6)
- Support for Disadvantaged Education and Economy (SDG1)
- Greenhouse Gas Reduction (SDG13)
- Green Transportation and Mobility Systems (SDG11)
- Urban Greening and Ecological Environment (SDG11)
- Corporate Sustainability (SDG12)
- Circular Economy and Waste Management (SDG12)
- Environmental Friendliness and Public Safety (SDG11)
- Industry and Innovation (SDG9)
- Marine Conservation and Sustainable Fisheries (SDG14)
- Lifelong Learning and Environmental Literacy (SDG4)
- Climate Adaptation Education and Resilience (SDG13)
- Housing Justice and Urban Planning (SDG11)
- AI and Digital Industry Development (SDG9)
- Family Friendliness and Social Care (SDG3)
- Employment Support and Reducing Inequality (SDG10)
- Sustainable Tourism Development (SDG12)
- Health Promotion and Public Health Protection (SDG3)
- Gender Equality and Human Rights Protection (SDG5)
- Crime Prevention and Social Rehabilitation (SDG16)
- Sustainable Agriculture and Food Systems (SDG2)
- Substance Abuse Issue (SDG3)
- Universal Education and Support for Disadvantaged Students (SDG4)
- Green Procurement (SDG12)
- Forest Management and Terrestrial Ecology (SDG15)
- Resilient Infrastructure (SDG9)
- Sport Promotion (SDG3)
- Entrepreneurship Cultivation and Support (SDG8)
- Multilateral Cooperation and Sustainable Practices (SDG17)
- Green Finance and Investment (SDG12)
- Open Data and Smart Governance (SDG16)

Legend:
- Environmental Protection
- Agriculture and Forestry
- Social Welfare
- Transportation
- Economy
- Safety
- Education

Weighted Scores of Stakeholder Concern on Issues

5

Voluntary Sustainability Review

This Voluntary Local Review (VLR) consolidates the dialogue between Kaohsiung City and its society, reviewing policy progress toward the 2050 Net-Zero goal. The report is a public, systematic explanation of results to citizens and the international community. Its structure is based on the stakeholder survey from the previous chapter, ensuring policies align with public expectations. This chapter will review and explain core issues of concern for each of the 17 UN Sustainable Development Goals (SDGs).
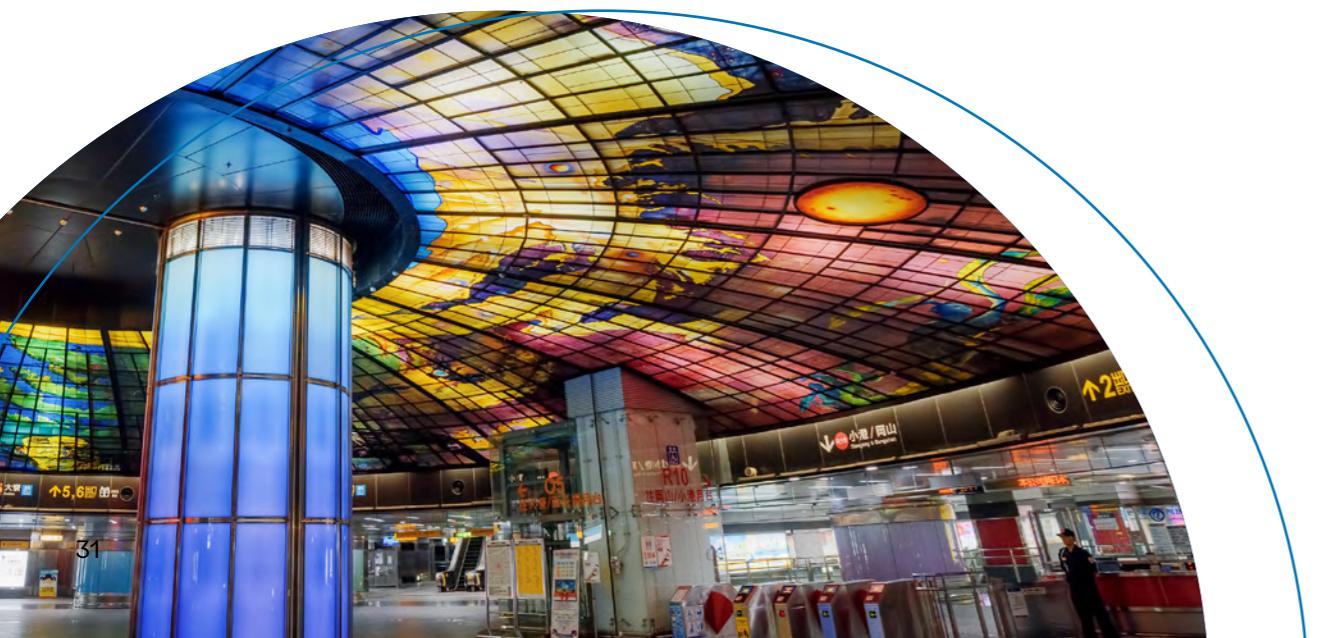
SDG1 - Support for Disadvantaged Education and Economy

To implement the UN's spirit of "Leave No One Behind", Kaohsiung City is building a comprehensive social safety net. Through stable housing, medical equity, employment empowerment, and future investment, the city supports disadvantaged households, ensuring everyone is included in the transition toward an equitable, prosperous future.

❶ Implementing Housing and Medical Equity

▶ **Housing and Medical Equity: Achievements and Goals**

Main Action Plan	Indicator	2020	2024	2030
Promote mobile medical services in areas with insufficient medical resources	Mobile healthcare coverage (%)	85.7	**100**[*]	90
Build social housing and prioritize disadvantaged households	Social Housing (%)	63	**47**[*]	40

*The 2024 implementation results met the 2030 target.

To bridge the urban-rural medical gap, the city partners with major hospitals to provide mobile medical services in six districts with insufficient resources, including Liouguei, Tianliao, and Neimen. For housing justice, the city provides affordable options through social housing and rent subsidies. 47% of residents in city-operated social housing are from disadvantaged households, demonstrating the principle of prioritized care.

30 Billion NTD Rent Subsidy
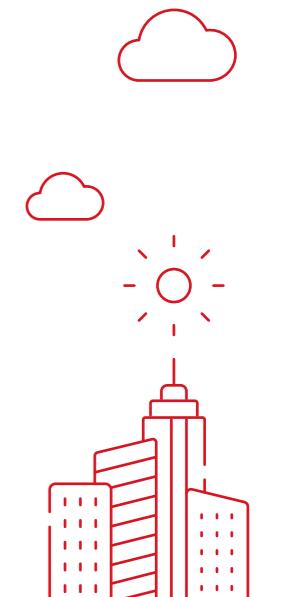
② Creating Employment Pathways for Low and Middle-Income Households

▶ Creating Employment Pathways: Achievements and Goals

Main Action Plan	Indicator	2020	2024	2030
Provide customized, one-on-one employment services for low/middle-income individuals with working capacity	Rate of applicable workers being supported to work in low-income households or low-middle-income-households (%)	61.1	**69.9**[*]	64

*The 2024 implementation results met the 2030 target.

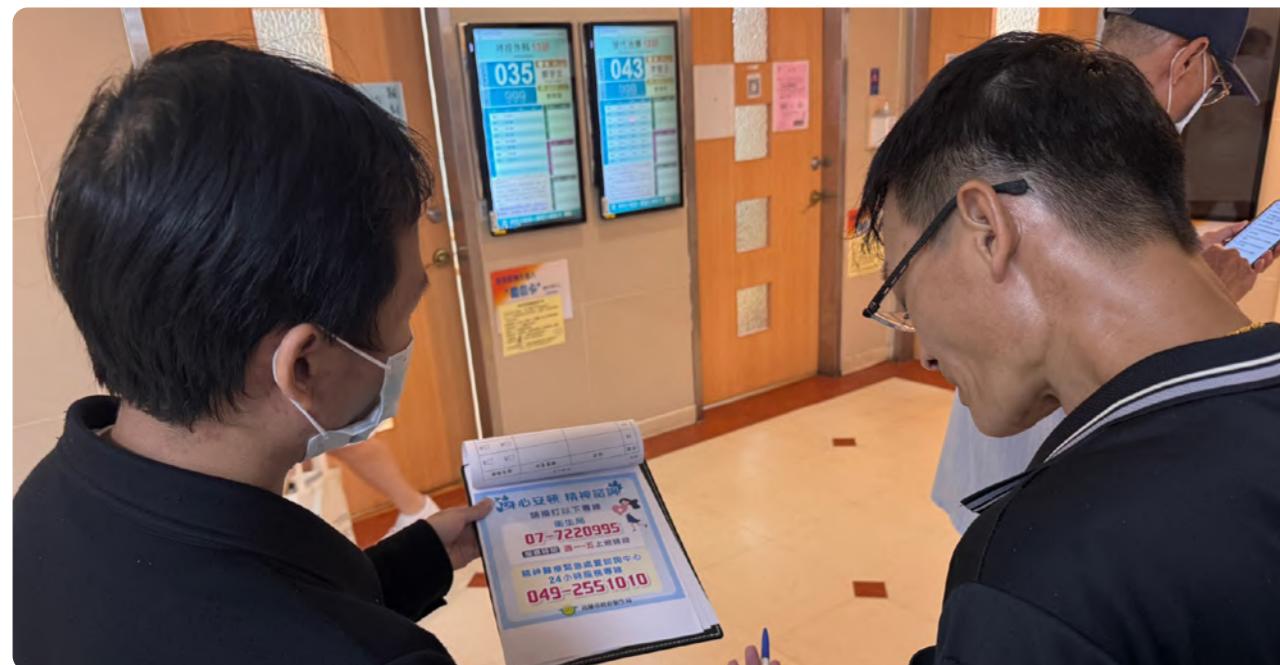The training and employment center provides customized, one-on-one employment services. By linking counseling with allowance subsidies, the city successfully assisted over 2,009 individuals in returning to the workplace in 2024, achieving an employment rate of 69.9%. This helps families transition from welfare dependence to economic independence.

One-on-one Dedicated Employment Service

▶ Employment Rate for Disadvantaged Individuals

unit: %

2020	2021	2022	2023	2024
61.1	66.7	62.9	67.6	70
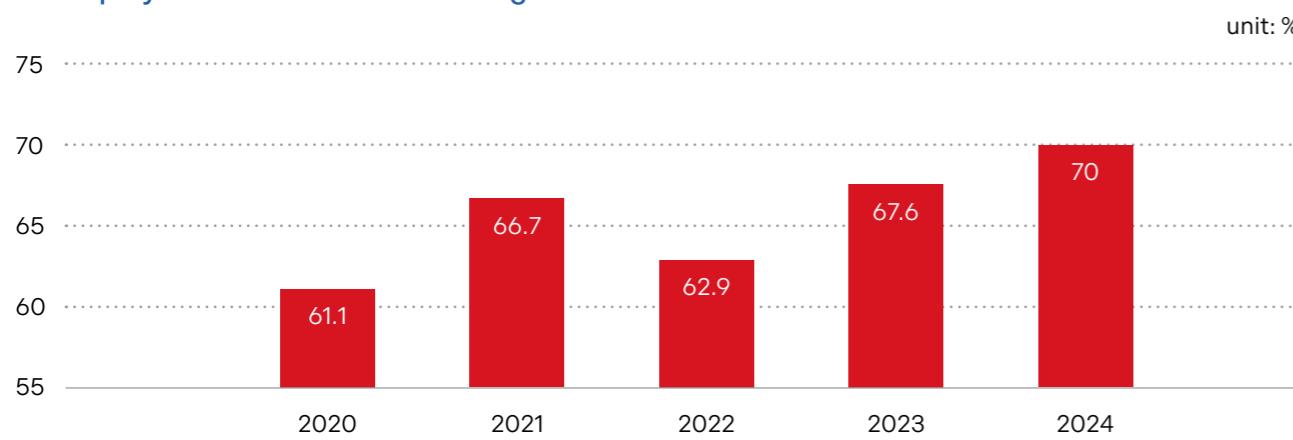
③ Opening Future Hope Accounts for Children and Youth

▶ Future Hope Accounts: Achievements and Goals

Main Action Plan	Indicator	2020	2024	2030
Promote the "Accounts for Future Education and Development of Children and Youth," with government matching funds	Opening rate of children and Youth Future Education and Development Accounts (%)	51.4	56.5	Observational indicator
	Continuing deposit rate of Children and Youth Future Education,and Development Accounts (%)	80	90.6	Observational indicator

To break the intergenerational cycle of poverty, the city promotes the "Accounts for Future Education and Development of Children and Youth," encouraging disadvantaged families to save for children born after 2016 with government matching funds. As of the end of 2024, 2,901 children and youth in the city have joined; the enrollment rate reached 56.5%, and the continuous deposit rate was 90.6%. Social workers also provide visits and financial literacy courses.

Financial Literacy Course and Enrollment Briefing for Child Accounts

Kaohsiung will continue to deepen integrated support — from housing and health to employment and education — ensuring the social safety net is interconnected to build an equitable, prosperous future.

SDG2 - Sustainable Agriculture and Food Systems

The city is building a sustainable food system — safe from farm to table, accessible to the vulnerable, and harmonious with the environment. This addresses the UN goals of ending hunger, achieving food security, and promoting sustainable agriculture.

❶ A Commitment to Safety from Farm to Table

▶ **Farm-to-Table Safety: Achievements and Goals**

Main Action Plan	Indicator	2020	2024	2030
Assist farmers in obtaining agricultural product traceability certification	Production and sales history verification area(hectares)	1,948	**4,210** *	2,950

*The 2024 implementation results met the 2030 target.

The city promotes agricultural product traceability certification (TAP) to provide safe, reliable products. A QR code allows consumers to check production records. By the end of 2024, the city's traceability-certified area reached 4,210 hectares, covering diverse products. This certification area has grown nearly 10-fold since 2012, showing excellent results in building a safe agricultural city.

Agricultural Products with Traceability Certification

▶ **Traceability Certification Area**

Unit: hectares

Bar chart values:
- 2020: 1,948
- 2021: 2,427
- 2022: 2,892
- 2023: 3,380
- 2024: 4,210
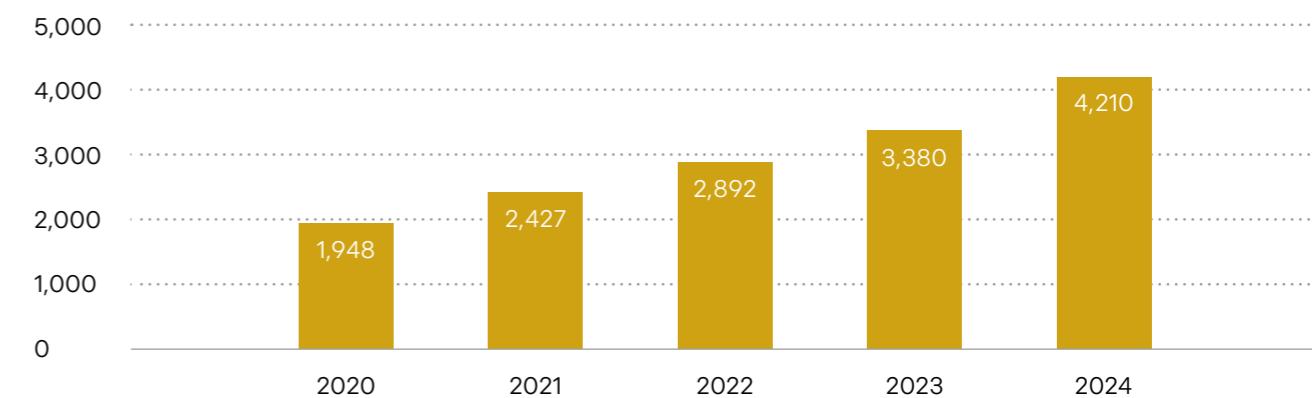
❷ Building a Warm Food Security Net

▶ **Food Security Net: Achievements and Goals**

Main Action Plan	Indicator	2020	2024	2030
Establish food banks and distribution stations with private groups	In-kind contribution service stations (offices)	62	84	87

Kaohsiung is building a food safety net for near-poor households through food vouchers and in-kind benefits. Collaborating with private charities, the city has established 2 main food banks, 11 physical stores, and 84 material distribution stations. In 2024, 4,046 cases were opened, serving 37,535 person-times, and distributing materials worth over 16 million NTD.

Mobile Cart Delivering Services to Remote Areas

❸ Moving Toward Environmentally-Friendly Sustainable Agriculture

▶ **Sustainable Agriculture: Achievements and Goals**

Main Action Plan	Indicator	2020	2024	2030
Guide farmers to transition to organic farming	Proportion of organic crops area (%)	1.8	2.5	Observational indicator
Expand agricultural expenditure and official funding	Agricultural expenditure in the composition of government's annual budget (%)	0.5	0.7*	0.5
	Public funds in the agricultural sector (unit: TWD 100 million)	6.7	11.3*	6.67
Promote rural regeneration community projects	Approvals of agricultural rezoning cases in rural communities (piece)	58	66*	65

*The 2024 implementation results met the 2030 target.

The city guides farmers toward organic farming, with the city's organic certification area reaching 1,190 hectares by the end of 2024. To support this, agricultural expenditure was 0.7% of the total budget in 2024, with total official funding at 1.13 billion NTD. This extends to rural development, with 66 approved rural regeneration communities now introducing carbon governance and low-carbon facilities.

Reuse of Banana Fiber Waste

> Kaohsiung will continue to expand traceability, deepen the food safety net, and promote organic farming to build a resilient and secure food system.

SDG3 - Family Friendliness and Social Care

To ensure health and well-being for all ages, Kaohsiung is building a support system from family to society, infancy to old age. By expanding service points, offering diverse subsidies, and deepening professional services, the city is building a resilient social safety net, realizing the vision of "Age-friendly, DEI (Diversity, Equity, and Inclusion)".

❶ Creating a Child-Rearing Friendly City

▶ **Child-Rearing Friendly City: Achievements and Goals**

Main Action Plan	Indicator	2020	2024	2030
Expand public childcare resources (centers, parent-child centers)	Number of childcare resource stations (offices)	116	194	209
	Number of childcare workers (people)	3,088	4,440*	4,200
	Number of parent-child center visitors served (10,000 people)	47.4	41.5	53.3
Provide childcare allowances	Childcare allowance claims (10,000 people)	44.0	50.1*	43.0

*The 2024 implementation results met the 2030 target.

Kaohsiung supports families through comprehensive childcare services and subsidies. By the end of 2024, the number of childcare resource points grew to 194, staffed by 4,440 professional childcare providers. The 24 parent-child centers served over 410,000 person-times that year. Economically, the city supports the central "Ages 0-6 Raised by the Nation Together" policy and added its own "Good Pregnancy 3, Happiness 333" program. In 2024, childcare-related subsidies were claimed 501,005 times.

Activities at Qiaotou Longfeng Community Public Childcare Center

❷ Implementing All-Age Social Care

▶ All-Age Social Care: Achievements and Goals

Main Action Plan	Indicator	2020	2024	2030
Actively establish diverse social welfare points for different ages and groups	Social welfare coverage (%)	25	33.2	39

As of 2024, 1,260 welfare facilities were established for children, women, the elderly, the disabled, and the homeless. This brings the coverage rate to 33.16%, ensuring residents can find resources and support within their communities.

▶ Social Welfare Point Coverage Rate

unit: %

Year	Value
2020	25
2021	28
2022	31
2023	32.4
2024	33.2
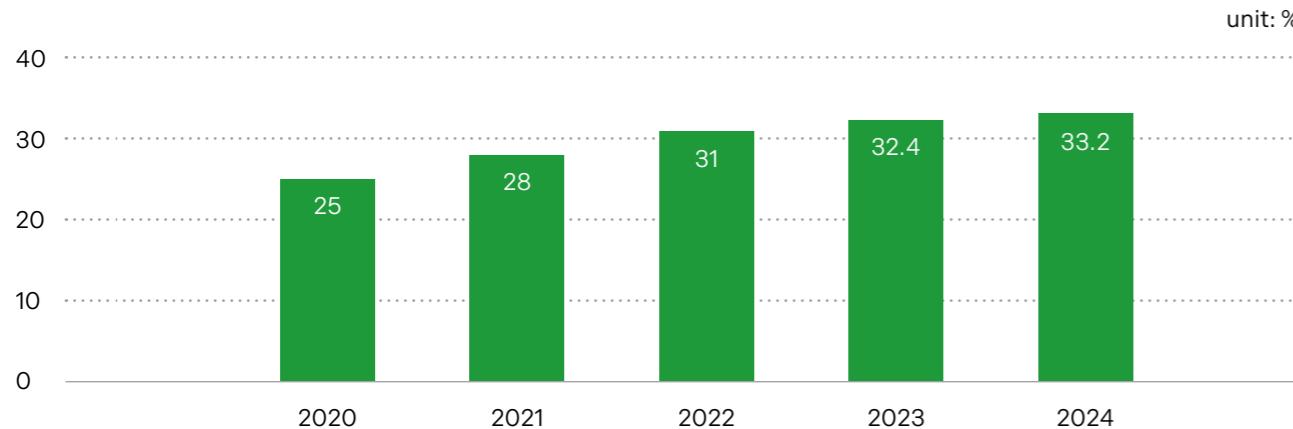
❸ Homeless Care Services

▶ Homeless Care Services: Achievements and Goals

Main Action Plan	Indicator	2020	2024	2030
Integrate public-private resources for shelter, outreach, medical aid, and employment matching	Homeless care project (person)	7,192	6,822[*]	6,000

*The 2024 implementation results met the 2030 target.

Upholding the "Leave No One Behind" principle, the city integrates public-private resources for the homeless. In 2024, service centers provided 723 person-times of shelter and 6,822 outreach care visits, assisted with medical care 748 times, and helped 16 people return home. The focus extends to life reconstruction and employment counseling, successfully matching 2,115 job opportunities in 2024.

Night Outreach and Material Provision

Kaohsiung will continue to expand public childcare capacity, aiming for 85 centers by 2026, and strengthen outreach services and trust-building with the homeless.

SDG4 - Lifelong Learning and Environmental Literacy

To ensure inclusive and equitable education, the city is enhancing both formal and social education systems. The strategy involves boosting global perspectives and digital skills within schools, while building an all-encompassing lifelong learning environment outside schools, focusing on "environmental literacy" to cultivate sustainable-minded citizens.

❶ Deepening the Connotation of Campus Education

▶ Deepening Campus Education: Achievements and Goals

Main Action Plan	Indicator	2020	2024	2030
Hold teacher professional development workshops on sustainable topics	Attended Sessions (Sessions)	64	102*	85
	Participants (Person)	2,339	3,215*	2,000
Promote digital learning device accessibility	Usage Rate of Learning Carriers (%)	-	83	100

*The 2024 implementation results met the 2030 target.

Quality education relies on forward-thinking teachers. In 2024, 102 professional development workshops were held on topics like gender equality, human rights, SDGs, and net-zero, with 3,215 participants. To ensure educational equity, the average usage rate of learning devices reached 83% in 2024.

❷ Building a City of Lifelong Learning for All

▶ Building a City of Lifelong Learning: Achievements and Goals

Main Action Plan	Indicator	2020	2024	2030
Provide lifelong learning via libraries, community colleges, elderly centers, open university, etc.	Civil Servants (10K person-times)	12.3	15.1*	10
	Promotional Activities (10K person-times)	217.7	385.1*	225
	Lifelong Learning for Women (10K person-times)	3.4	5.5*	4.0
	Elderly Learning (10K person-times)	25.6	27.7	28.8
	Education for Women (10K person-times)	0.26	0.25*	0.23
	Education and Training for Volunteer Service (10,000 people)	2.6	7.7	7.8

*The 2024 implementation results met the 2030 target.

Kaohsiung provides a complete lifelong learning ecosystem. The city library, as a knowledge hub, held 19,265 events in 2024, attracting over 3.85 million participants in promotional activities. Community Colleges and elderly learning centers provided 277,495 learning opportunities for the elderly. The National Open University offers flexible remote learning, including a "Third-Life University" for those over 55. Specialized courses for women's education served 2,496 person-times. In-service training for civil servants exceeded 150,000 person-times. In 2024, 77,122 people participated in volunteer service education and training.

Diverse Channels for Further Education

❸ Rooting Environmental Literacy and Civic Action

▶ **Environmental Literacy: Achievements and Goals**

Main Action Plan	Indicator	2020	2024	2030
Certify and promote environmental education facilities	Number of Environmental Education Facilities (places)	18	**23**[*]	22
Organize eco-volunteer teams	Volunteers of environmental protection (unit: 10,000 people)	2.8	2.5	2.68

*The 2024 implementation results met the 2030 target.

"Environmental literacy" is core to the city's lifelong learning plan. All 682 designated units completed environmental education reporting in 2024. The city has 23 certified environmental education facilities providing hands-on learning. This literacy translates into action: 667 eco-volunteer teams with 24,555 environmental protection volunteers actively protect the city's environment

Food and Agriculture Education Promotion Committee

Kaohsiung will continue to leverage its lifelong learning hubs to disseminate sustainability knowledge and strengthen localized environmental education.

SDG5 - Gender Equality and Human Rights Protections

To achieve gender equality, Kaohsiung is building an inclusive society that respects diversity and allows all genders to thrive, addressing social values, public participation, and personal safety.

❶ Establishing Social Values of Equity

▶ **Social Values of Equity: Achievements and Goals**

Main Action Plan	Indicator	2020	2024	2030
Respect natural gender structure development	The sex ratio at birth (%)	107.1	107.3	Observational indicator
Safeguard same-sex marriage rights	Same-sex marriages (couples)	306	416	Observational indicator

In 2024, the city's birth sex ratio was 107.3, showing no artificial imbalance from gender preference. This respect extends to diverse families: 416 same-sex couples registered for marriage in 2024, demonstrating the city's concrete commitment to marriage equality and human rights.

▶ **Same-sex Marriage Registrations**

Unit: couples

Year	Couples
2020	306
2021	249
2022	328
2023	413
2024	416
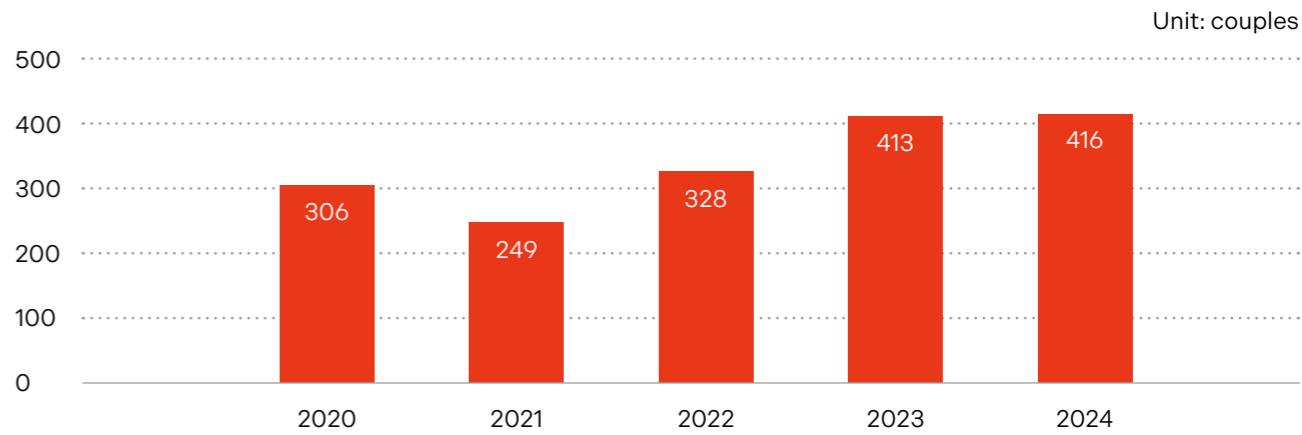
❷ Enhancing Women's Public Participation

▶ Women's Public Participation: Achievements and Goals

Main Action Plan	Indicator	2020	2024	2030
Ensure women's participation in senior public sector positions	Proportion of deputy chiefs, chiefs of sta and first-level female supervisors in Kaohsiung City Government (%)	28	28	30
	Proportion of female non-supervisors in the municipal government and its first-level agencies (%)	28	35*	30
Encourage civil groups to increase female leadership	Gender ratio of chairpersons of non-governmental organizations (%) (Female)	28.3	29.2	Observational indicator

*The 2024 implementation results met the 2030 target.

In 2024, the proportion of female heads, deputy heads, and chiefs of staff in city government and its first-level agencies was 28%. The proportion of female senior-level non-managerial staff was 35%. The city also encourages the private sector; the proportion of female chairpersons in civil groups rose to 29.2% in 2024.

Advocacy for Gender Ratios on Boards of Directors/Supervisors

❸ Building a Gender-Based Violence Prevention Network

▶ Gender-Based Violence Prevention: Achievements and Goals

Main Action Plan	Indicator		2020	2024	2030
Conduct advocacy to raise public awareness of domestic/sexual violence	Domestic violence and sexual assault prevention activities of the year (unit: 10,000 people)		1	4.9*	3.2
Provide counseling to perpetrators to reduce re-offense risk	Implementation of Domestic Violence Counterparties Counseling Services	Applicants	166	172*	150
		People (person-times)	5,804	13,485*	6,200

*The 2024 implementation results met the 2030 target.

The city employs a dual strategy of prevention and source-based counseling. In 2024, 970 advocacy events reached over 49,000 citizens and professionals, corresponding to 4.9 (in 10,000 person-times) on the related indicator. Concurrently, counseling services were provided to 172 perpetrators, totaling 13,485 sessions, to help them manage conflict non-violently and reduce re-offense risk.

Domestic and Sexual Violence Prevention Advocacy Event

Kaohsiung will continue to apply a gender-equality perspective to public policy, strengthen practical training for mandatory reporters, and increase service coverage for high-risk domestic violence cases.

SDG6 - Water Resource Use and Wastewater Management

To ensure all citizens have clean water and sanitation, Kaohsiung is adopting a dual approach of "Increase Sources and Reduce Expenditure" (Open/Reduce) and "Cleanliness and Sanitation" to build a resilient water supply system and improve wastewater management.

❶ Water Resource Sustainability (Open/Reduce)

▶ **Water Resource Sustainability: Achievements and Goals**

Main Action Plan	Indicator	2020	2024	2030
Replace old water mains to reduce leakage	Tap water penetration rate (%)	96.6	97	Observational indicator
	Leakage density of tap water and length of pipeline replacement (km/year)	44.6	56.67	Observational indicator
Promote reuse of treated wastewater effluent	Recycle of used water (Mts / Days)	5.4	9.2	21

The city's water access rate has reached 96.97%. To conserve resources, 56.67 km of old pipelines were replaced in 2024, and 4,895 leak repairs were completed. To increase supply, the city promotes water recycling; 7 public wastewater plants now provide 91,801 m³ of recycled water daily for street cleaning, irrigation, and industrial use. As of 2024, green building regulations have resulted in over 1.73 million m² of rainwater harvesting facilities.

▶ **Water Reclamation Usage**

Unit: CMD

Year	Value
2020	5
2021	6
2022	10
2023	8.9
2024	9.2
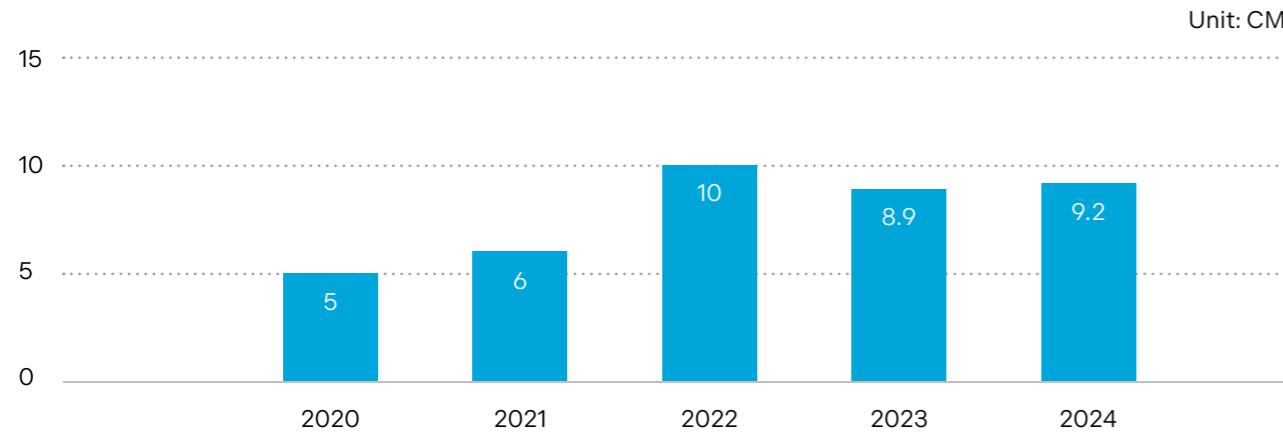
❷ Enhancing Clean Water and Public Sanitation

▶ **Clean Water and Sanitation: Achievements and Goals**

Main Action Plan	Indicator	2020	2024	2030
Promote public sewage system user connections	Households connecting to public sewer system and sewer (%)	46	50.9	57.0
Improve public toilet quality through upgrades and evaluation	Premium public toilets in Kaohsiung City (%)	79.2	93.3[*]	85

*The 2024 implementation results met the 2030 target.

The public sewage connection rate has reached 50.93% by the end of 2024. In public sanitation, the city views toilet quality as a marker of civilization. In 2024, the city's rate of excellent-rated public toilets reached 93.3%, providing a "not wet, not dirty, not smelly" environment.

Excellent-Rated Public Toilet

Kaohsiung will continue to improve water access in remote areas, increase sewage connection rates, and enhance smart water management.

SDG7 - Energy Efficiency and Renewable Energy

As an industrial hub, Kaohsiung views energy transition as a core mission. The city focuses on the two main pillars of "energy generation" and "energy saving," leveraging its abundant sunshine and public-private partnerships to build a stable, efficient, and clean energy system in line with the national 2050 net-zero goal.

▶ Energy Efficiency and Renewables: Achievements and Goals

Main Action Plan	Indicator	2020	2024	2030
Establish a Green Energy Promotion Task Force to promote solar	Solar photovoltaic facilities promoted (GW)	0.12	1.3	2.5
Promote smart energy use via energy audits, subsidies, and communication	Energy consumption per capita (kWh/people)	2,745	2,284	Observational indicator

For energy generation, the "Kaohsiung City Green Energy Promotion Task Force" was established, chaired by the Deputy Mayor, to integrate Industry, Government, and Academia and resolve issues. This mechanism proposed the "6-year 1.25GW" Solar Photovoltaic Project, utilizing public roofs, innovative Fishery and electricity symbiosis zones, and residential incentives. For energy saving, statistics show Kaohsiung's per capita residential energy use was 2,284 kWh in 2024. The city continues to promote Industry Energy Assessments, equipment subsidies, and ESCO services to assist industries and the public in reducing energy consumption.

2024 Solar Target (850MW) Achievement Ceremony

▶ Solar Photovoltaic Installation Promotion

unit: GW

	2020	2021	2022	2023	2024
	0.1	0.4	0.8	0.9	1.3
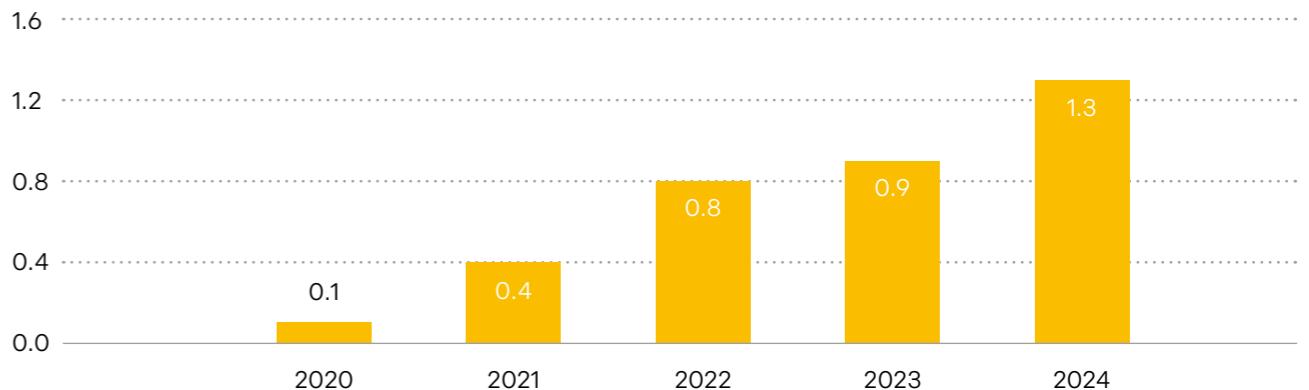
Kaohsiung will advance its "Three Arrows" policy — the "Kaohsiung House Project," "Solar Photovoltaic Project," and "Vertical Greening Project" — to increase renewable energy, reduce fossil fuel dependency, and create a cleaner, healthier living environment.

SDG8 - Entrepreneurship Cultivation and Support

To promote inclusive and sustainable economic growth, the city has built a comprehensive support system to help youth entrepreneurs realize their ideals while incorporating sustainable development and social values.

▶ Entrepreneurship Support: Achievements and Goals

Main Action Plan	Indicator	2020	2024	2030
Offer systematic entrepreneurship training courses	Entrepreneurship training courses held (sessions)	29	**39**[*]	38
Establish "O'Star Entrepreneurship Counseling Platform" for one-on-one consulting	Service of support and advice (people)	249	305	315

*The 2024 implementation results met the 2030 target.

To provide foundational knowledge, the city held 39 training course sessions in 2024 on topics like finance, law, and marketing, attracting over 1,000 participants. Beyond general training, the city established the "O'Star Entrepreneurship Counseling Platform" to provide customized, one-on-one professional consulting. In 2024, this network completed 185 consultations, assisting 305 person-times.

Assisting Startup Teams at a Market Stall

> Kaohsiung will continue to adapt its counseling services to industry changes, helping youth cultivate sustainable business models.

SDG9 - Industry and Innovation

▶ Industry and Innovation: Achievements and Goals

Main Action Plan	Indicator	2020	2024	2030
Develop and upgrade industrial parks, attracting high-end manufacturing chains	Promoting of park development and transforming into high-end manufacturing center (unit:100 million TWD)	400	**2,716.7**[*]	2,442.0
Establish three startup hubs to provide counseling and market matching	Number of Entities Receiving Startup Green Economy Model (Number of Entities)	-	**80**[*]	80

*The 2024 implementation results met the 2030 target.

Kaohsiung's innovation is driven by the twin engines of "high-end manufacturing" and "Startup Incubation". From 2020 to 2024, by developing and upgrading industrial parks, the city has successfully attracted a cumulative investment of 271.67 billion NTD. Concurrently, the city established three startup hubs: "DAKUO (Digital Art Kaohsiung United Office) Digital Content Creativity Center," "KO-IN Kaohsiung Smart Technology Innovation Park," and "MEGABAY". In 2024, 80 local firms were counseled, resulting in 12 collaborations worth 815 million NTD.

Industrial Innovation Summit Connecting Startups with Industry Trends

> Kaohsiung aims to link local industry with startups, introducing more AI and net-zero technologies, to become an international industrial hub for both high-end manufacturing and sustainable innovation.

SDG10 - Employment Support and Reducing Inequality

Kaohsiung provides precision employment counseling and social support to ensure all citizens, especially middle-aged, elderly, and disadvantaged groups, can participate in economic development.

❶ Creating Job Opportunities for Diverse Groups

▶ Job Opportunities for Diverse Groups: Achievements and Goals

Main Action Plan	Indicator	2020	2024	2030
Assist middle-aged, elderly, disabled, and disadvantaged groups via specialized services	Referral of Middle-aged and Elderly Persons for Employment (10,000 people)	1.2	1.8*	1.3
	Promoting employment for people with physical and mental disabilities (people)	3,151	3,937*	3,160
	Employment-by-referral rate of disadvantaged job seekers (%)	54	63.2*	58

*The 2024 implementation results met the 2030 target.

To assist the middle-aged/elderly and alleviate labor shortages, the city helped 17,837 middle-aged and elderly citizens find employment in 2024. For persons with disabilities, services include case management and vocational training, resulting in 3,937 job placements for persons with disabilities. For general disadvantaged groups, 28,735 people were served, achieving an overall employment-by-referral rate of 63.2%.

Employment Promotion Course at Silver-Haired Talent Service Point

❷ Continuously Monitoring Income Distribution

According to 2023 survey data, the city's household income quintile gap was 6.24 times, the second-lowest value since 2017. The Gini coefficient was 0.35. These observational indicators serve as references for future social welfare and labor policies.

> Kaohsiung will continue to provide one-on-one employment services for specific disadvantaged groups and strengthen horizontal cooperation with social and health networks.

[1]As the latest audit and analysis are still in progress, this report utilizes the most recent verified data from 2023.

SDG11 - Air Quality Monitoring and Maintenance

Kaohsiung is committed to a sustainable, livable city, viewing clean air and a quiet environment as basic rights. The city uses a high-density monitoring network and diverse pollution control measures to manage air and noise quality.

❶ Enhancing Air Quality Monitoring and Control

▶ Air Quality Control: Achievements and Goals

Main Action Plan	Indicator	2020	2024	2030
Implement diverse air pollution controls and ensure real-time data accuracy	Annual average concentration of fine suspended particles (μg/m³)	18.4	15.6	13
	AQI value	82.8	90.3*	90
	Available air quality automatic monitoring data (%)	98.8	98.9*	>94

*The 2024 implementation results met the 2030 target.

Air pollution control measures are reflected in monitoring data. In 2024, the annual average PM2.5 concentration dropped to 15.6 μg/m³, a 7% improvement from the previous year. The ozone 8-hour concentration was 44.9 ppb (a 3.3% improvement). The overall air quality "Good" rate (AQI) rose to 90.3%. The city's self-operated monitoring stations maintained data availability rate between 98.4% and 99.6%.

▶ Air Quality "Good" Rate Trend Chart

First time exceeding 90% in 2024.

☑ The manual monitoring value of PM$_{2.5}$ is **15.6μg/m³**, showing a year-on-year decline.

☑ Implement key industrial zone inspection projects, introduce AI technologies for verification, enhance the regulatory network of air quality maintenance zones, and strengthen the phase-out of high-polluting vehicles.

PM$_{2.5}$ Manual Monitoring

Annual Average Concentration (μg/m³)

24.6　21.8　20.5　18.3　18.5　16.9　16.8　15.6

Air Quality Compliance Rate　(AQI ≤ 100)

2017	2018	2019	2020	2021	2022	2023	2024
64.7%	69.9%	77%	82.8%	80.7%	87.5%	88.9%	90.3%

❷ Maintaining Environmental Noise Quality

▶ Noise Quality: Achievements and Goals

Main Action Plan	Indicator	2020	2024	2030
Conduct 24-hour continuous monitoring at stations citywide	Environmental noise monitoring (%)	100	97.6*	96

*The 2024 implementation results met the 2030 target.

The city has 12 environmental and 12 traffic noise monitoring stations, conducting 24-hour monitoring quarterly. In 2024, Kaohsiung's environmental noise compliance rate reached 97.6%.

> Kaohsiung will continue to integrate air quality data and introduce scientific instruments for tech-based enforcement, improving efficiency and accelerating emission reductions.

SDG12 - Corporate Sustainability

Kaohsiung views corporations as key partners, promoting "internal optimization" and "external transparency". The city guides local industries to adopt green processes and encourages corporate disclosure to move the entire ecosystem toward responsible, resilient practices.

▶ **Corporate Sustainability: Achievements and Goals**

Main Action Plan	Indicator	2020	2024	2030
Guide local industry to adopt green processes; promote green factory system	Increase of the issued green factory certificates (factories)	18	16	Observational indicator
Encourage companies to disclose sustainability actions and file reports	Number of TWSE/TPEx Listed Companies Filing Sustainability Reports (Number of Entities)	521	87	136

To optimize internal operations, the city promotes the Green Factory system. In 2024, 16 factories in Kaohsiung obtained green factory certification, and 14 others passed clean production assessments. To enhance external transparency, the city encourages listed companies to file sustainability reports. In 2024, 87 listed companies in Kaohsiung filed their 2023 sustainability reports, showing growing corporate emphasis on ESG.

▶ **Kaohsiung City Corporate Sustainability Achievements 2024**

Corporate Sustainability Advancing **internal capability optimization** and **external information transparency** in parallel.

☑ In 2024, **16 factories** obtained Green Factory certification, and another **14** passed the Clean Production assessment.

☑ In 2024, a total of **87** listed companies filed their 2023 sustainability reports.

☑ Assist local industries in adopting green manufacturing processes and encourage companies to disclose their sustainability initiatives.

Kaohsiung will continue outreach, especially to SMEs, to promote sustainability certifications and information disclosure, strengthening the city's overall corporate competitiveness.

SDG13 - Climate Adaptation Education and Resilience

Facing climate change, Kaohsiung is building urban resilience through flood detention, disaster education, and smart monitoring to enhance adaptation capabilities. The city also conducts cross-departmental awareness activities on heat prevention and disaster preparedness.

❶ **Building Urban Resilience and Disaster Prevention Capacity**

▶ **Urban Resilience: Achievements and Goals**

Main Action Plan	Indicator	2020	2024	2030
Build flood detention ponds	Volume of detention basins (Mts)	326.6	**498.0**[*]	490
Introduce IoT for smart flood prevention network	Smart flood prevention and monitoring stations (stations)	172	359	Observational indicator
Deepen community disaster education	Communities with autonomous landslide disaster prevention (communities)	3	**25**[*]	22
	Communities with autonomous flood prevention (communities)	31	33	43
	Landslide prevention education and training (sessions)	24	127	150

*The 2024 implementation results met the 2030 target.)

To cope with extreme rainfall, the city has built flood detention ponds, reaching a total detention basin capacity of 4.98 million tons by 2024. The city also promotes smart flood prevention, increasing smart flood monitoring stations to 359 by 2024 using IoT technology. To strengthen community response, the city has supported 25 communities with autonomous landslide disaster prevention and 33 communities with autonomous flood prevention. In 2024, 127 sessions of landslide prevention education and training were held.
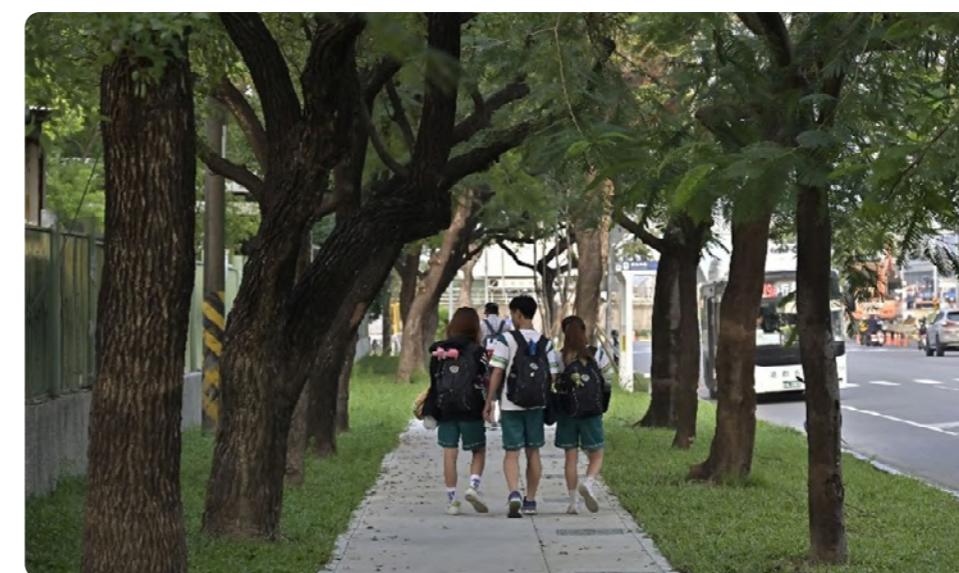
Permeable Design Integrated with Planting Beds
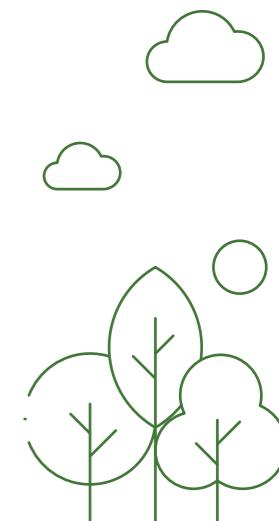
❷ Promoting Public Climate Literacy and Sustainable Campuses

▶ Climate Literacy and Sustainable Campuses: Achievements and Goals

Main Action Plan	Indicator	2020	2024	2030
Raise citizen climate change awareness	Awareness raising sessions of high temperature adaptation, prevention and treatment (sessions)	347	1,792	7,000
Encourage sustainable circular concepts on campus	Sustainable environment and high/low temperature adaptation courses (unit: 10,000 people)	10.1	16.2	100
	Number of sustainable campuses (campuses)	213	280	314

To enhance public adaptation, the city held 1,792 advocacy sessions on heat adaptation in 2024, reaching over 160,000 people. The city also actively promotes the "Sustainable Campuses Project", encouraging schools to engage in a "Campus Sustainability Micro-Revolution". As of 2024, 280 related projects have been implemented by schools, such as installing external shading and collecting AC condensate for irrigation.

▶ Number of Sustainable Campus Projects

Unit: number of schools

Year	Value
2020	213
2021	234
2022	254
2023	266
2024	280
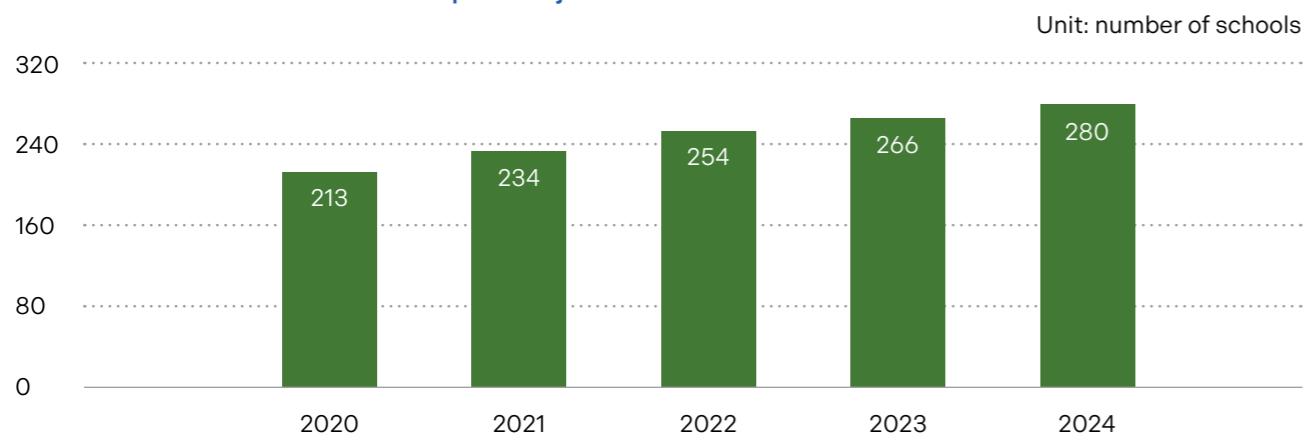
> Kaohsiung will continue to advance climate action by strengthening physical infrastructure, deepening community networks, and rooting public adaptation education.

SDG13 "Climate Action" comprises "Resilience and Adaptation" and "GHG Mitigation". This section focuses on the former. "GHG Mitigation" strategies are detailed in Chapter 6, Net-Zero Voluntary Review.

SDG14 - Marine Conservation and Sustainable Fisheries

As a port city, Kaohsiung views marine conservation as an essential responsibility. The city focuses on environmental monitoring, pollution prevention, and sustainable fisheries to protect marine health and deepen public knowledge.

❶ Protecting Marine Health

▶ Marine Health: Achievements and Goals

Main Action Plan	Indicator	2020	2024	2030
Set up marine monitoring stations	Qualified rate of coastal and ocean water quality (%)	100	100[*]	100
Execute marine debris removal, e.g., net removal from artificial reefs	Preservation of species	4	4	6

*The 2024 implementation results met the 2030 target.

The city maintains 36 coastal monitoring stations, conducting quarterly sampling. In 2024 monitoring, the water quality of the city's marine areas fully met the standards. The city actively removes marine debris; in 2024, net removal operations were completed at 4 artificial reef sites, including Mituo and Yongan, clearing 180kg of nets to restore ecological function.

❷ Promoting Sustainable Fishery Management

▶ Sustainable Fishery: Achievements and Goals

Main Action Plan	Indicator	2020	2024	2030
Suspend subsidized fuel for non-compliant fishing vessels	Cancelation of fuel subsidies of the illegal fishing vessels	0	19	Observational indicator
Promote "Incentive Fallowing Program" for resource recovery	Subsidies for off-fishing (%)	98	98.9	100

To promote resource sustainability, the city enforces fishery regulations. In 2024, 19 non-compliant fishing vessels had their fuel subsidies canceled. The city also promotes an "Incentive Fallowing Program" to allow resources to recover; in 2024, 1,070 vessels were approved for fallowing incentives.

▶ Fishing Vessel Subsidized Fuel

Unit: vessels
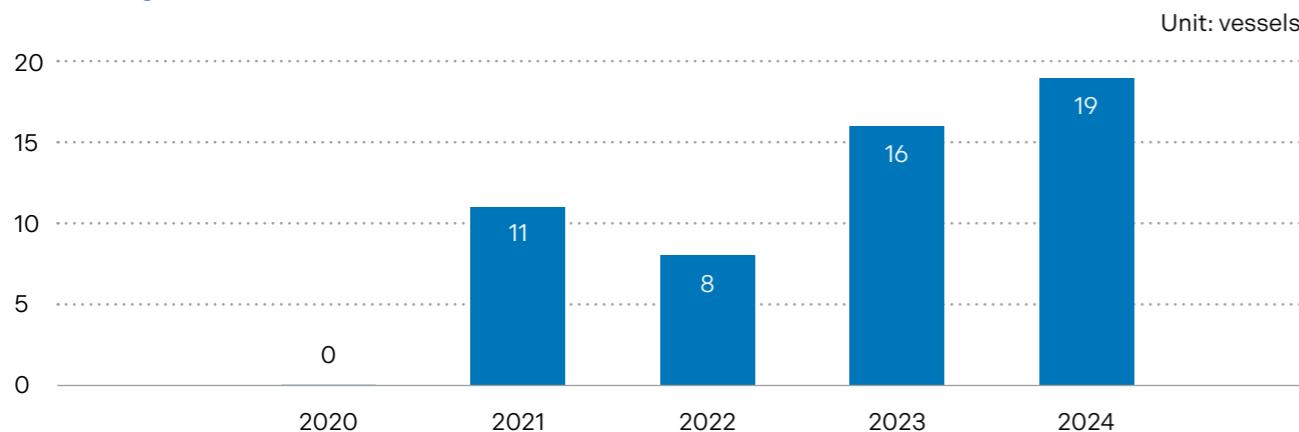
❸ Deepening Public Marine Education

▶ Marine Education: Achievements and Goals

Main Action Plan	Indicator	2020	2024	2030
Conduct annual marine conservation courses in schools	Marine education and environmental education (sessions)	40	45 [*]	40

*The 2024 implementation results met the 2030 target.

The city actively promotes marine education, visiting 40 schools annually from 2021-2024, reaching over 5,600 students. The program focuses on diverse topics and provides resources to remote schools, fostering a "Know the Ocean, Love the Ocean, Get Close to the Ocean" mindset.

Students at Tianliao Junior High School Participate in Marine Ecology Junior Rangers Course

Kaohsiung will continue to protect marine cleanliness through scientific monitoring and deepen communication with fishing groups to promote sustainable management.

SDG15 - Forest Management and Terrestrial Ecology

To protect terrestrial ecosystems, Kaohsiung focuses on expanding forest conservation, protecting biodiversity, and defending habitat health through protected areas, afforestation, and invasive species management.

❶ Protecting the City's Green Lifeline

▶ **Protecting the Green Lifeline: Achievements and Goals**

Main Action Plan	Indicator	2020	2024	2030
Designate terrestrial ecological protected areas	Proportion of reserved area in mountainous areas (%)	23.3	23.3	Observational indicator
Protect specific commemorative trees via ordinances	Memorial trees registered and in conservation (trees)	558	764*	750
Distribute seedlings annually for public greening	Number of afforestation seedlings given out (unit: 10,000 seedlings)	4.2	4.1	4.5

*The 2024 implementation results met the 2030 target.

Designated protected areas (national parks, wildlife refuges, etc.) cover 23.27% of the city's mountain area. Through the "Incentive Afforestation Guidance Regulations," 77.568 hectares of private land were approved for afforestation by 2024. The city also protects 764 specific commemorative trees under the "Ordinance for the Protection of Specially Commemorated Trees". In 2024, about 42,000 seedlings were given out to the public.

Lingya No. 047, Samanea saman Merr. (Specific Commemorative Tree)

❷ Defending Local Biodiversity

▶ **Defending Biodiversity: Achievements and Goals**

Main Action Plan	Indicator	2020	2024	2030
Establish public-private partnerships to remove invasive species	Iguana iguana (unit)	3,047	6,592	Observational indicator
Conduct biological research in nature reserves	Research and investigation report of the natural reserve area managed by Kaohsiung (reports)	5	2	Observational indicator

The city actively removes invasive species. In 2024, 9,756 invasive animals were removed, the majority being 6,592 iguanas. 29.2 hectares of invasive plants (like Mikania micrantha Kunth and Yinhehuan) were also cleared. Two systematic biological research surveys were completed in protected areas like the Namasia District Nanzihsiian River Wildlife Refuge, providing crucial baseline data.

Protecting Ulmus parvifolia Growing on a Slope

Kaohsiung will continue to build a more resilient and species-rich terrestrial ecosystem through afforestation, tree protection, invasive species control, and local research.

SDG16 - Crime Prevention and Social Recovery

To promote a peaceful, inclusive society, Kaohsiung focuses on both "frontend prevention" and "backend enforcement". The city integrates technology and policing to reduce crime and builds a social safety net to identify and support high-risk families.

▶ Crime Prevention: Achievements and Goals

Main Action Plan	Indicator	2020	2024	2030
Crack down on major crimes	Violence crimes committed (cases)	76	28	100
Build community violence prevention networks	Crime reporting and requiring for assistance by the general public(%)	29	**42.2**[*]	32
Establish visit mechanism for children in drug-related families	Investigation rate of children in the household of suspected criminals in violation of the Narcotic Hazards Prevention Act(%)	100	**100**[*]	100

* The 2024 implementation results met the 2030 target.

The city cracks down on major crimes ("Gangs, Money Laundering, Guns, Drugs, and Fraud"). In 2024, violent crime incidents dropped to 28, continuing a downward trend from 76 in 2020. Public satisfaction with policing reached a historic high in 2024. For prevention, the city promotes community-based prevention. Through the "Family Guardian Ambassador" program, the rate of reporting by the general public reached 42.18% in 2024.

▶ Downward Trend in Violent Crime Incidents, 2020-2024

Violent Crime

☑ In this period, **28** violent crimes occurred, all of which <u>were solved within a short time</u>. Compared with the previous period, this represents a decrease of **3** cases.

☑ Since 2020, it has shown a <u>year-on-year declining trend</u>. Compared with 2020, the number of cases has decreased by **48**, a **63.16%** reduction.

Comparison of Violent Crime Incidents in Kaohsiung City, 2020–2024

109	110	111	112	113
76	51	38	31	28
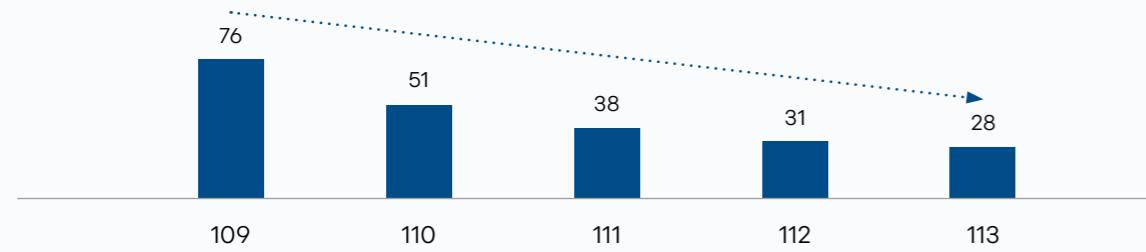
A visit mechanism for children in drug-violation households achieved a 100% investigation rate in 2024, providing a protective umbrella for minors.

Community Crime Prevention Visit Activity

Kaohsiung will continue to use technology to enhance crime prevention and deepen community cooperation.

SDG17 - Multilateral Cooperation and Sustainable Practices

To strengthen implementation and revitalize global partnerships, Kaohsiung acts as both a "local connector" and "international participant," contributing to a global sustainable future through knowledge sharing and city exchanges.

❶ Strengthening Sustainable Development Dialogue

▶ Sustainable Dialogue: Achievements and Goals

Main Action Plan	Indicator	2020	2024	2030
Hold sustainable development conferences via the ICLEI KCC	Conference of sustainability (sessions)	4	35	40
Disseminate sustainable info via official websites/ social media	Dissemination of Sustainable Development Information (10,000 Persons)	54.6	363*	104.6

*The 2024 implementation results met the 2030 target.

The ICLEI KCC has become a key knowledge platform. In 2024, the center held 35 conferences and training sessions on sustainability. Concurrently, the city government published nearly 1,000 pieces of sustainable information on social media, garnering over 3.63 million views.

❷ Expanding Global City Partnerships

Kaohsiung's international connections are pragmatic. In 2024, it signed sister city agreements with four cities, including Pristina, Kosovo, deepening cooperation in smart cities and healthcare. In education, the Fulbright Program continues to bring in US teaching assistants. In healthcare, the "Staff for International Psychiatry under the New Southbound Policy Training Program" had trained 825 professionals from 13 countries by the end of 2024.

Signing Sister City Agreement with Pristina City

Kaohsiung will continue to strengthen international ties through platforms like the ICLEI KCC and translate global experience into local governance improvements.

6

Net-Zero Voluntary Review

The Kaohsiung City Net-Zero Policy White Paper was initiated in late 2023 and announced by Mayor Chen Chi-Mai at the 7th meeting of the Committee for Sustainable Development and Climate Change Response Promotion of Kaohsiung City Government in August 2024. This VLR collects the 2024 implementation results of the 94 net-zero projects from the White Paper. Through transparent disclosure, this report provides stakeholders with a complete overview of Kaohsiung's 2024 net-zero progress. This VLR also maps net-zero measures to their corresponding SDGs, demonstrating that decarbonization creates co-benefits that are crucial for urban sustainability.

▶ **Correlation Table of the Nine Major Aspects and SDGs**

1	Energy Transition	7 AFFORDABLE AND CLEAN ENERGY, 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
2	Industrial Transformation	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE, 11 SUSTAINABLE CITIES AND COMMUNITIES, 17 PARTNERSHIPS FOR THE GOALS
3	Transportation Transformation	3 GOOD HEALTH AND WELL-BEING, 7 AFFORDABLE AND CLEAN ENERGY, 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE, 11 SUSTAINABLE CITIES AND COMMUNITIES, 14 LIFE BELOW WATER, 15 LIFE ON LAND, 17 PARTNERSHIPS FOR THE GOALS
4	Residential and Commercial Transformation	4 QUALITY EDUCATION, 7 AFFORDABLE AND CLEAN ENERGY, 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE, 11 SUSTAINABLE CITIES AND COMMUNITIES, 13 CLIMATE ACTION
5	Agricultural Transformation	2 ZERO HUNGER, 3 GOOD HEALTH AND WELL-BEING, 4 QUALITY EDUCATION, 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE, 12 RESPONSIBLE CONSUMPTION AND PRODUCTION, 13 CLIMATE ACTION
6	Environmental Transformation	6 CLEAN WATER AND SANITATION, 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE, 11 SUSTAINABLE CITIES AND COMMUNITIES, 12 RESPONSIBLE CONSUMPTION AND PRODUCTION
7	Green Lifestyle	2 ZERO HUNGER, 3 GOOD HEALTH AND WELL-BEING, 4 QUALITY EDUCATION, 8 DECENT WORK AND ECONOMIC GROWTH, 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE, 10 REDUCED INEQUALITIES, 11 SUSTAINABLE CITIES AND COMMUNITIES, 12 RESPONSIBLE CONSUMPTION AND PRODUCTION, 13 CLIMATE ACTION, 14 LIFE BELOW WATER, 15 LIFE ON LAND, 16 PEACE, JUSTICE AND STRONG INSTITUTIONS, 17 PARTNERSHIPS FOR THE GOALS
8	Carbon Sinks	3 GOOD HEALTH AND WELL-BEING, 10 REDUCED INEQUALITIES, 11 SUSTAINABLE CITIES AND COMMUNITIES, 13 CLIMATE ACTION, 14 LIFE BELOW WATER, 15 LIFE ON LAND
9	Just transition	4 QUALITY EDUCATION, 8 DECENT WORK AND ECONOMIC GROWTH, 10 REDUCED INEQUALITIES, 13 CLIMATE ACTION, 16 PEACE, JUSTICE AND STRONG INSTITUTIONS, 17 PARTNERSHIPS FOR THE GOALS

❶ Energy Transition

| A | **Cumulative Installed Solar Photovoltaic Capacity** | Core Goal | 7 AFFORDABLE AND CLEAN ENERGY | Secondary Goal | None |

▶ Results and Targets for Solar Photovoltaic Installation Cumulative Capacity

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Solar Photovoltaic Installation Capacity	1.069GW	1.428GW	1.437GW	2GW	4GW

To accelerate the energy transition, the city established the "Kaohsiung City Green Energy Promotion Task Force", supervised at the deputy mayor level, to promote solar PV, setting a "6-year 1.25GW plan." From 2021 to the end of 2024, the city's cumulative approved solar capacity exceeded 1,100MW, 1.3 times the original 850MW target, with over 6,300 approved cases. The city's school electricity improvement projects, including air conditioning installations, have been completed, ensuring that photovoltaic systems can be installed in 337 schools (98% coverage). 163 applications for fishery and electricity symbiosis projects were received, with a total application capacity of 245.922MW. In sports venues, such as the National Stadium, Zhongzheng Stadium, and Zhongzheng Tennis Court, a combined solar capacity of 1GW has been installed. Additionally, 18 public market rooftops have been equipped with solar photovoltaics, with an estimated annual power generation of 3.57 million kWh. Detention ponds and wastewater plants have a combined installed capacity of 26.768MW. Agricultural facilities have a cumulative approved capacity of 72MW. The Police Department has a total capacity of 2.38MW at 61 locations. Cultural venues such as Kaohsiung City Cultural Center, Dadong Arts Center, and Gangshan Cultural Center have a total installation capacity of 3.21MW. The Mortuary Services Office has assisted 9 administrative districts (including Cijin, Renwu, Ciaotou, Cieding, Alian, Liouguei, Zihguan, Cishan, and Gangshan) with solar installations totaling 7.478MW. In industrial parks, Gangshan-Benjhou and Ho-Fa Industrial Park have a combined installation of 62MW.

National Stadium Solar Photovoltaics

| B | **Proportion of Renewable Energy Usage in New Installed Industrial Parks** | Core Goal | 7 AFFORDABLE AND CLEAN ENERGY | Secondary Goal | 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE |
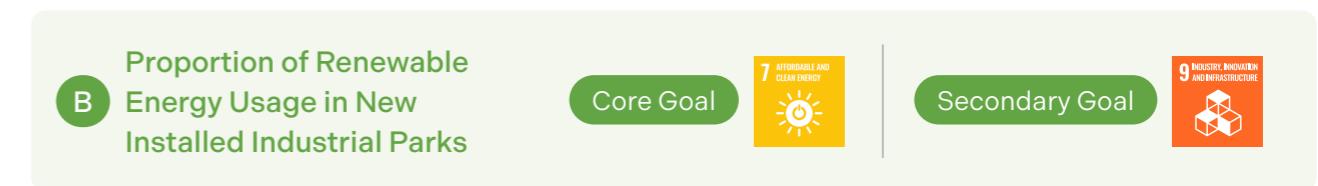
▶ Results and Targets for Proportion of Renewable Energy Usage in New Installed Industrial Parks

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Proportion of Renewable Energy Usage in New Installed Industrial Parks	One company in Renwu Industrial Park completed solar installation	Nanzih Technology Industrial. Park is currently under construction. After future tenants begin mass production, it is expected to achieve 25% renewable energy of its actual electricity consumption annually.	-	25%	80%

In response to international net-zero supply chain trends (e.g., RE100, CBAM), Kaohsiung requires renewable energy use in new industrial parks. The Nanzih Technology Industrial. Park, currently under construction, is expected to achieve 25% renewable energy of its actual electricity consumption after future tenants begin mass production. The Renwu Industrial Park will also require tenants to install solar PV facilities in accordance with the Kaohsiung City Self-Government Ordinance for Green Building.

Solar Photovoltaics at Gangshan Benjhou Industrial Park Wastewater Plant

C Hsinta Power Plant Process Improvement

Core Goal — 7 AFFORDABLE AND CLEAN ENERGY

Secondary Goal — 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
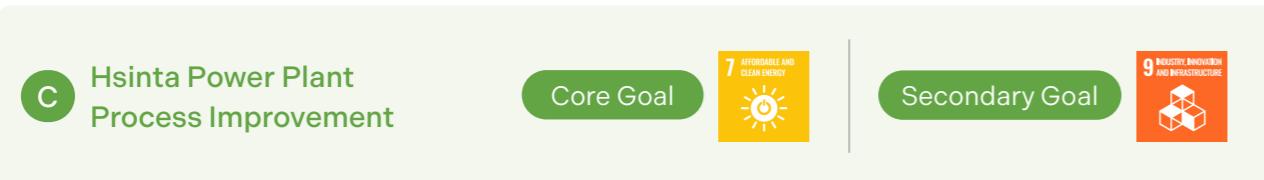
▶ **Results and Targets for Hsinta Power Plant Process Improvement**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Hsinta Power Plant Process Improvement	Units 1 and 2 decommissioned, 1.85million tons coal reduction	Units 3 & 4 transitioned to backup status	Pilot 5% hydrogen blending in gas-fired power generation.		2050 Net-Zero Power Structure

Kaohsiung City, a member of the PPCA since 2020, designated Hsinta Park as a Net-Zero demonstration site. By the end of 2024, Hsinta Power Plant achieved a cumulative coal reduction of 2.8875 million metric tons through the conversion of Units 1–4 to backup facilities and operational adjustments. Future actions focus on strict permit management — activating coal units only during power shortages — and accelerating the verification of new units (M11–M13), adhering to the "No Increase in Air Pollution" principle for the Kaohsiung-Pingtung Region.

Hsinta Power Plant

D Cogeneration-Friendly Load Reduction in Power Plants

Core Goal — 7 AFFORDABLE AND CLEAN ENERGY

Secondary Goal — 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
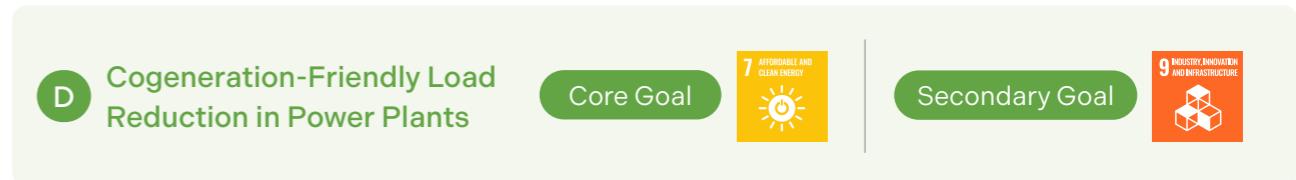
▶ **Results and Targets for Cogeneration-Friendly Load Reduction in Power Plants**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Coal phase-out in cogeneration	Coal reduction: 0.526 million metric tons	Coal reduction: 0.481 million metric tons	Full coal phase-out in cogeneration plants		Expanded use of renewable energy and biomass fuels

Since 2020, Kaohsiung has promoted the Friendly Load Reduction of cogeneration boilers to accelerate the industrial transition to clean energy. By the end of 2024, 11 participating enterprises invested NT$9.8 billion, achieving a cumulative coal reduction of 2.103 million metric tons (2021–2024). The City Government continues to enforce the phase-out of coal-fired equipment by encouraging the switch to natural gas and alternative fuels.

Kaohsiung Cogeneration Boiler Natural Gas and Power Supply Meeting

❷ Industrial Transformation

Ⓐ Solid Recovered Fuel (SRF) | Core Goal [9 INDUSTRY, INNOVATION AND INFRASTRUCTURE] | Secondary Goal None
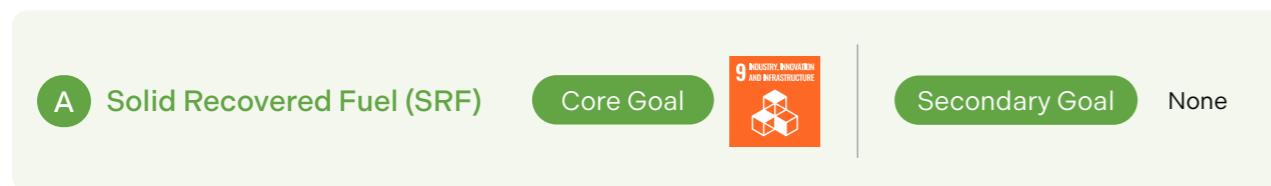
▶ **Results and Targets for Solid Recovered Fuel**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Solid Recovered Fuel (SRF) (tons/year)	6,186.26	168,835 *	22,500	30,000	60,000

*The 2024 implementation results met the 2030 target.

Kaohsiung City is actively promoting the conversion of combustible waste into SRF. The city has guided and matched SRF manufacturers and users, establishing a preliminary supply chain. Currently, there are 5 SRF manufacturers and 1 user (Chung Hwa Pulp Corporation-Chiutang Mill). The city is also introducing the concept of converting agricultural waste to Farmers' Associations, assisting in clearing discarded agricultural film and trial-producing SRF

Ⓑ Industrial Net-Zero Alliance Voluntary Reduction Targets | Core Goal [9 INDUSTRY, INNOVATION AND INFRASTRUCTURE] | Secondary Goal [17 PARTNERSHIPS FOR THE GOALS]
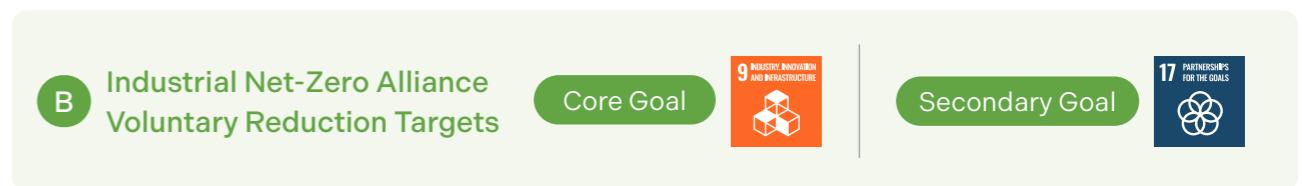
▶ **Results and Targets for Industrial Net-Zero Alliance Voluntary Reduction**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Industrial Net-Zero Alliance Voluntary Reduction Targets	Reduced emissions by 4.93 million metric tons compared to 2022	Reduced emissions by 1.57 million metric tons compared to 2023	Provide Kaohsiung with a reduction of 6.17 million metric tons (9% reduction from baseline year by 2025)		Provide Kaohsiung with a reduction of 37.47 million metric tons, a 56.7% reduction from baseline year

In 2024, four Industrial Net-Zero Alliance meetings were held, focusing on the Ministry of Environment's voluntary reduction plans. The Alliance promotes progress by leveraging industry leaders to support smaller players. 18 enterprises have set carbon reduction targets for 2026, collectively contributing a reduction of 450,000 tons. 51 companies have established targets for 2030 (4.67 million tons), and 65 companies aim for 2050 targets (39.39 million tons, a 60% reduction from baseline).

C Net-Zero City Commercial Operation Service Action and One-Stop Platform

Core Goal 17 PARTNERSHIPS FOR THE GOALS

Secondary Goal 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 11 SUSTAINABLE CITIES AND COMMUNITIES

▶ **Results and Targets for the One-Stop Platform**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Net-Zero City Commercial Operation Service Action and One-Stop Platform	40 counseling, cultivation, and matching activities	56 cumulative net-zero related activitie		-	

The Kaohsiung City Self-government Ordinance on Net-Zero Urban Development prompted the creation of the "Net-Zero City Commercial Operation Service Action and One-Stop Platform". It serves as an enabler and integrator for local industry, structured around three key aspects: "Guidance and Cultivation," "Matchmaking and Consulting," and "Resource Linkage". The platform integrates over 80 central and local resources and published tools like the "Industrial Carbon Management Operations Manual". From 2022 to 2024, the platform has held 56 cumulative net-zero related activities.

Kaohsiung City Net-Zero Digital Dual-Axis Transformation Roundtable

D Carbon Inventory Advisory Group

Core Goal 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Secondary Goal 17 PARTNERSHIPS FOR THE GOALS
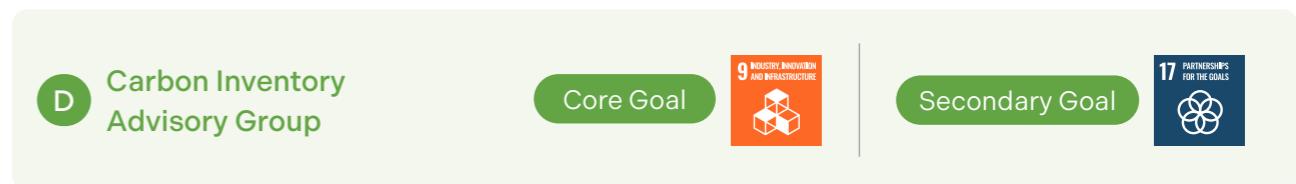
▶ **Results and Targets for the Carbon Inventory Advisory Group**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Carbon Inventory Advisory Group	Provided guidance to 52 businesses	Provided guidance to 20 businesses		-	

In 2024, the "Carbon Inventory Advisory Group" provided guidance to 20 businesses, including 5 mandatory reporting sources and 15 SMEs (8 of which were affected by CBAM). The group provides regulatory consultation and face-to-face guidance to help newly regulated enterprises complete their inventory and reporting obligations, especially regarding updates to the GHG Reporting System (GHGRS) platform.

❸ Transportation Transformation

A Light Rail and MRT Construction	Core Goal	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	Secondary Goal	11 SUSTAINABLE CITIES AND COMMUNITIES
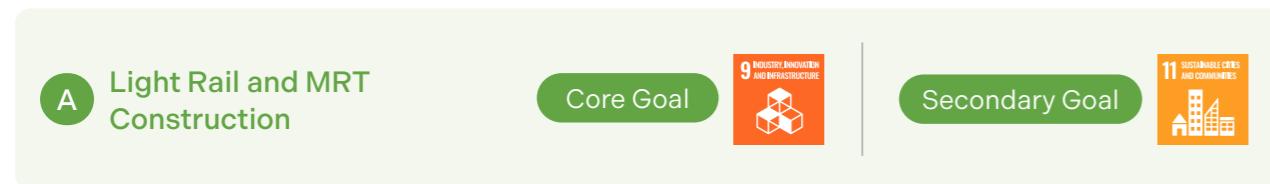
▶ **Results and Targets for Light Rail and MRT Construction**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Light Rail and MRT Construction	64.8 km, 76 stations	66.3 km, 77 stations	70.14 km, 80 stations	112.38 km, 114 stations	Complete a comprehensive light rail and MRT network

To build the S-Corridor Technology Corridor, Phase 1 of the Gangshan and Lujhu Extension Line officially opened on June 30, 2024, extending the Red Line to Gangshan Railway Station. The Kaohsiung Light Rail began full-circle trial operations on January 1, 2024, achieving a total annual ridership of 12,561,402. The MRT Xiaogang-Linyuan Line and the Yellow Line are also in the detailed design and site preparation stages.

Kaohsiung Light Rail Full Circle Operation

B Promotion of Sharing Transportation	Core Goal	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	Secondary Goal	3 GOOD HEALTH AND WELL-BEING	15 LIFE ON LAND

▶ **Results and Targets for Promotion of Sharing transportation**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Promotion of Sharing transportation	6 operators, 4,215 vehicles, 7.57M cumulative rentals	4 operators, 2,700 vehicles, 9.66M cumulative rentals		-	

The city promulgated the "Kaohsiung City vehicle sharing development and Management Ordinance" and the "Kaohsiung City vehicle sharing Business Permit and Fee Regulations". Four shared mobility providers have been approved: WeMo Scooter and Wei Xiang Corp (1,000 e-scooters), HoCloud Mobility Service Co., Ltd. (iRent) (800 e-scooters, 200 cars), and Gogoro Network (700 e-scooters). This totals 2,700 shared vehicles operating in 13 districts. As of 2024, the total number of rental transactions has reached approximately 9.66 million.

Citizen Renting Shared Transport via Smartphone

C Promotion of Public Transportation

Core Goal — 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE | Secondary Goal — 3 GOOD HEALTH AND WELL-BEING
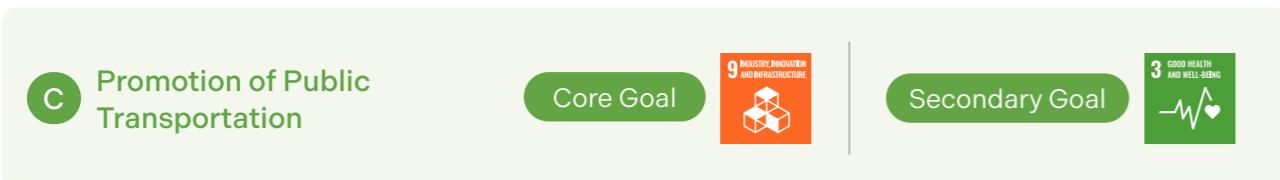
▶ Results and Targets for Public Transportation Promotion

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Promotion of Public Transportation	11.40% increase in actual volume compared to 2022	15.74% increase in actual volume compared to 2023	0.35% increase in actual volume compared to 2022	0.5% increase in actual volume compared to 2025	1% increase in actual volume compared to 2040
Public Transport Commuter Pass	890,000 sets sold	Over 1.35 million passes sold	Carbon reduction 25,047 tons	-	

Helped by the TPASS commuter pass, total mass transit ridership in 2024 grew by 15.74% compared to 2023 (Bus +6.6%, MRT +14.7%, LRT +62%). Since the launch of the 399 (Kaohsiung) and Tainan-Kaohsiung-Pingtung 999 Intercity Commuter Pass in April 2023, over 1.35 million passes have been sold (as of Dec 2024). The city also partnered with iPASS Corporation to develop an all-online service via the iPASS MONEY APP.
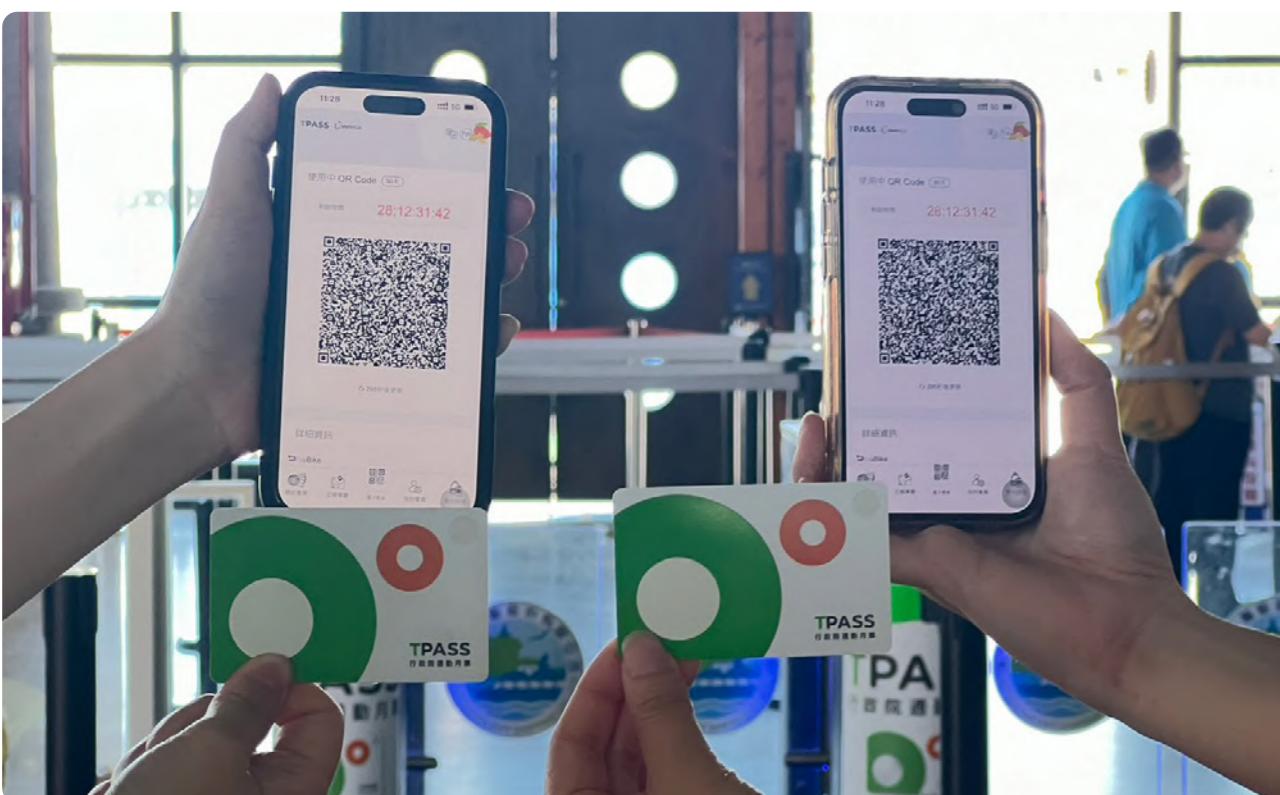
TPASS Commuter Pass Integrating Transport Modes

D Transit-Oriented Development (TOD)

Core Goal — 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE | Secondary Goal — None
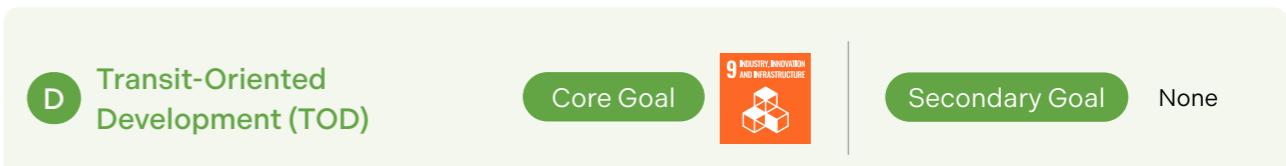
▶ Results and Targets for Transit-Oriented Development (TOD)

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Transit-Oriented Development (TOD)	2024 Draft plan for Yellow Line stations initiated	Actively drafting the detailed plan for areas surrounding Yellow Line stations	-	Complete urban planning process for new MRT line FAR	

The city's unique "Dual-Ring Road Network" (LRT + MRT Yellow Line) provides an opportunity for Transit-Oriented Development (TOD). The city is currently drafting the "Revision of the Detailed Plan for Areas Surrounding Kaohsiung MRT Yellow Line Stations". This plans for high-intensity, mixed-use development within 500m of stations, using development permits and increased FAR incentives.

▶ Transit-Oriented Development (TOD) - Five Major Planning Goals

01 Implement the 2050 Net-Zero carbon emissions policy.
02 Guide TOD-based urban regeneration.
03 Enhance the functionality of public facilities.
04 Improve the quality of the public environment.
05 Strengthen the integrated efficiency of public transit.

5D Development Goals for TOD.

Density High-Intensity Land Use	Diversity Mixed-Use Land Development	Design Pedestrian-friendly and Transfer-friendly Design	Destination Destination Accessibility	Distance Walkable Service Area

E Air Quality Maintenance Zones

Core Goal **9** INDUSTRY, INNOVATION AND INFRASTRUCTURE

Secondary Goal **3** GOOD HEALTH AND WELL-BEING
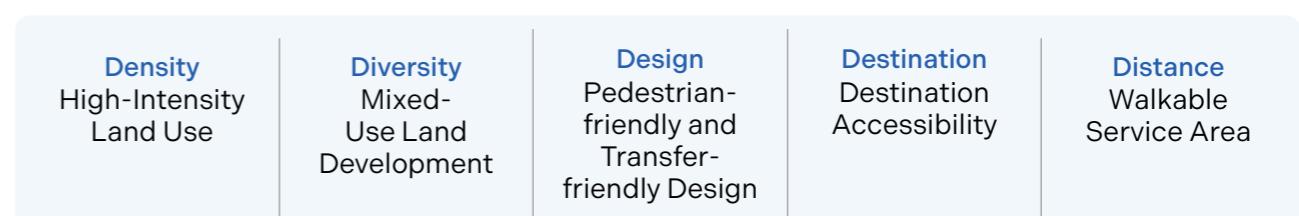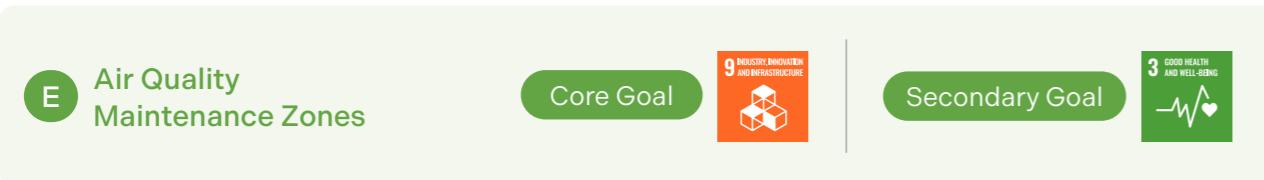
▶ **Results and Targets for Air Quality Maintenance Zones**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Air Quality Maintenance Zones	4 zones	5 zones	15 zones	16 zones	20 zones

As of 2024, the city has 5 designated Air Quality Maintenance Zones. Phase 1 (Feb 2022) included Shoushan Zoo, The Pier-2 Art Center, and Chengcing Lake. Phase 2 (Apr 2023) expanded to Port of Kaohsiung. Phase 3 (Sep 2024) was implemented at Yancheng Elementary School. Vehicle compliance rates have risen to 89.3% (Phase 1) and 97.6% (Phase 2). The Ministry of Environment also approved 4 new zones in Dec 2024 (including Siaogangshan Skywalk Park, Cijin Seaside Park, Hongmaogang Historical Park, and National Kaohsiung Center for the Arts (Weiwuying)) to be implemented in July 2025.

Utilizing Technology for Enforcement Against Violating Vehicles

F Electric Vehicle Friendly Environment

Core Goal **9** INDUSTRY, INNOVATION AND INFRASTRUCTURE

Secondary Goal **3** GOOD HEALTH AND WELL-BEING
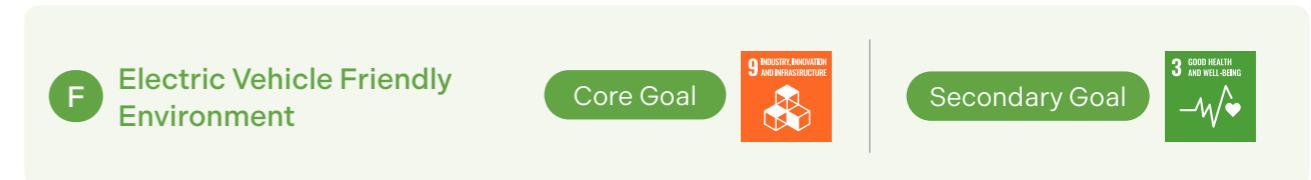
▶ **Results and Targets for Electric Vehicle Friendly Environment**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Electric Vehicle Friendly Environment	300 chargers; 1,171 residential chargers	738 chargers; 1,266 residential chargers	950 public chargers; 2,075 residential chargers	2,000 public chargers; 3,200 residential chargers	8,000 public chargers; 9,200 residential chargers

As of 2024, 1 new social housing complex has been completed, including 4 charging spots (2.9% ratio). Following the "Regulations for the Management and Installation of Dedicated Parking Spaces and Charging Facilities for Electric Vehicles", the city uses a "Zero Municipal Funding" public-private model. As of 2024, 738 EV chargers have been installed in 121 public-private parking lots.
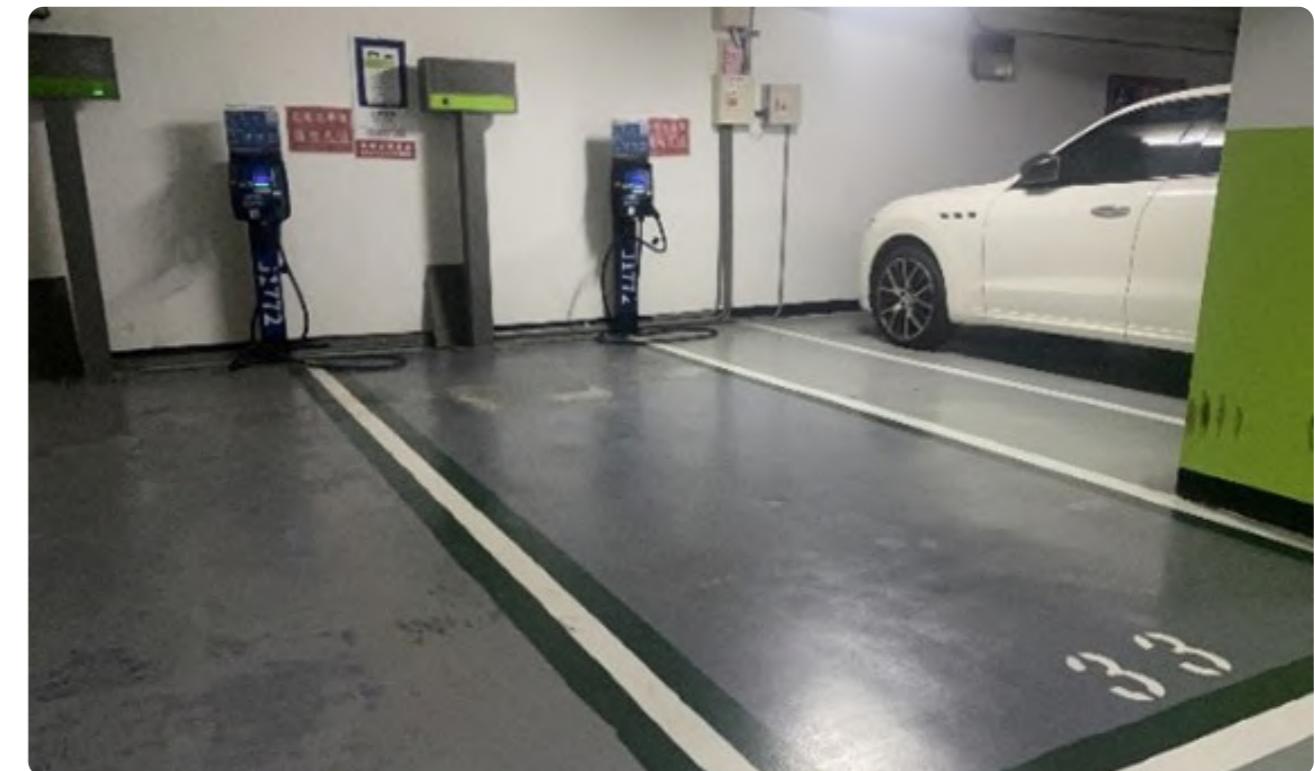
Installation of New EV Charging Stations

G Smart Transportation Core Goal 9 INDUSTRY INNOVATION AND INFRASTRUCTURE | Secondary Goal 3 GOOD HEALTH AND WELL-BEING
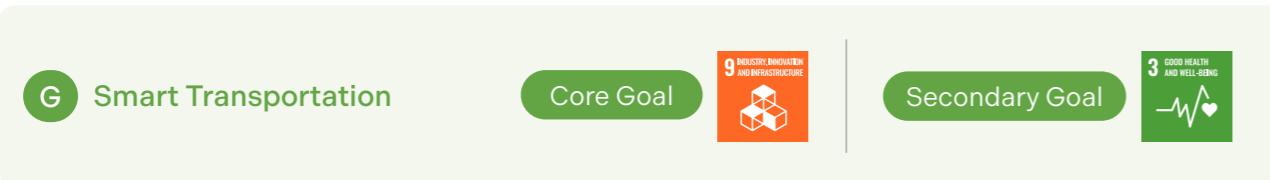
▶ Results and Targets for Smart Transportation

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Smart Transportation (proportion of intelligent signals at major intersections)	3.2%	100 intersections completed	6.3%	10%	30%

From 2009 to 2024, Kaohsiung has installed smart signal systems at 100 major intersections. This system has reduced travel time by 13-26% and average stopping time by 20-35%. This saves 225,954 liters of fuel annually, reducing CO_2 emissions by 511.3 tons.

▶ Control Logic Selection for Regional Smart Signals

H Electrification/ Hydrogen-Powered/ Autonomous Buses Core Goal 11 SUSTAINABLE CITIES AND COMMUNITIES | Secondary Goal 3 GOOD HEALTH AND WELL-BEING
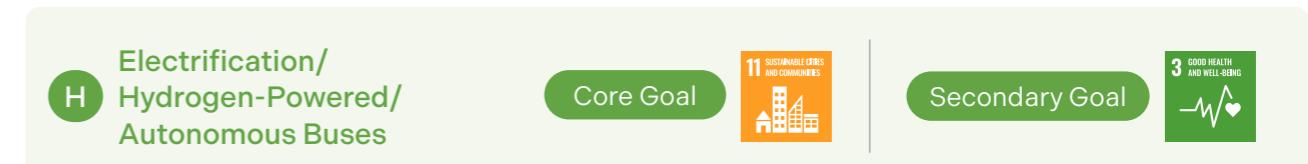
▶ Results and Targets for Bus Electrification

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Electrification/ Hydrogen- Powered/ Autonomous Buses	32.71%	36%	70.03%	100%	-

The city actively encourages operators to replace buses with electric ones, supported by the "2030 Passenger Vehicle Electrification Promotion Plan". As of 2024, the city's e-bus replacement rate reached about 36% (310 buses), the highest among the six special municipalities. The long-term goal is to evaluate the introduction of hydrogen vehicles.

Kaohsiung E-Buses

I Electrification Government Vehicles and Motorcycles

Core Goal — 11 SUSTAINABLE CITIES AND COMMUNITIES | Secondary Goal — 13 CLIMATE ACTION

▶ Results and Targets for Electrification Government Vehicles and Motorcycles

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Electrification Government Vehicles and Motorcycles	27.5% electrification of government motorcycles; 0.6% electrification of government vehicles	30.2% electrification of government motorcycles; 1.34% electrification of government vehicles	65% electrification of government motorcycles; 19.8% electrification of government vehicles	100% electrification of government motorcycles	100% electrification of government vehicles

In 2024, the city procured 39 electric scooters and 4 electric cars, reducing carbon by 41.53 tons. The cumulative electrification rate is 30.2% for scooters (846 vehicles) and 1.34% for cars (8 vehicles). The future strategy will prioritize the full electrification of official scooters and vehicles for heads of first-level agencies.

J Electrification/ Decarbonization of Private Transportation Vehicles

Core Goal — 3 GOOD HEALTH AND WELL-BEING | Secondary Goal — 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

▶ Results and Targets for Electrification of Private Transportation Vehicles

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Electrification of Electric Motorcycles (%)	4.6%	4.9%	9%	15%	95%
Electrification of Large Diesel Vehicles (Phases 1-3) (%)	32.7%	30.5%	29.3%	25.5%	15.5%

In 2024, through subsidies, 45,175 old (Phase 1-4) scooters were eliminated, and 6,695 new e-scooters were added. E-scooters now account for 4.9% of all scooters. From 2017 to 2024, 13,079 Phase 1-3 large diesel vehicles were retired, reducing the ratio of old vehicles from 63.4% to 30.5%. By 2024, the total number of e-scooters reached 103,707, the third highest in the nation.

K Electrification of Vehicles in Industrial and Business Parks

Core Goal — 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE | Secondary Goal — None

▶ Results and Targets for Electrification of Vehicles in Industrial and Business Parks

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Electrification of Vehicles in Industrial and Business Parks	2 YouBike stations (25 docks) in Kangshan Industrial Park	2 YouBike stations (21 docks) in Kangshan Industrial Park	-	Public parking lots in the park will incorporate electric parking spaces and charging stations	All vehicles in the park will meet the national 2050 net-zero pathway

In 2024, 2 YouBike stations were set up in the Kangshan Industrial Park. The He Fa Industrial Park introduced discount programs to encourage employees to use green transport, helping companies implement corporate sustainability.

Shared Bicycles in the Industrial Park

L Electrification/ Decarbonization of Vessels

Core Goal ![13 CLIMATE ACTION]

Secondary Goal ![9 INDUSTRY, INNOVATION AND INFRASTRUCTURE]
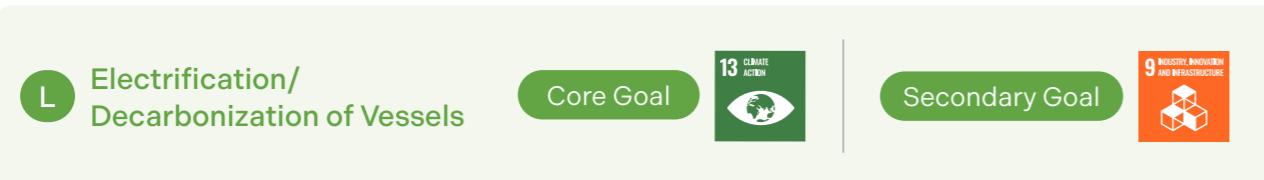
▶ **Results and Targets for Vessel Electrification**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Electrification of Ferries (%)	27.3%	27.3%	31.3%	50%	Full electrification

As of 2023-2024, among the 11 vessels operated in the city, the percentage of electric-powered vessels (including Chi Fu No. 1, Chi Fu No. 2, and Happy Ferry) is 27.3%. The city secured NT$160 million in funding (from the Environmental Protection Administration - now Ministry of Environment - and city funds) to construct three electric ferries between 2022 and 2024. The first electric ferry (Xiong-Zhan No. 1) was completed and delivered on January 16, 2024. Alice and Xiong-Zhan No. 2 were delivered on September 2, 2024, and November 20, 2024, respectively.

Securing Funding from the Ministry of the Environment for Electric Ferries (Xiong-Zhan No. 2)

M Human-Centered Transportation

a. Public Bicycles

Core Goal ![11 SUSTAINABLE CITIES AND COMMUNITIES]

Secondary Goal ![13 CLIMATE ACTION] ![17 PARTNERSHIPS FOR THE GOALS]

▶ **Results and Targets for Public Bicycles**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Public Bicycle Stations Installed and number of renters	1,286 stations, 15.49 million rentals	1,392 stations, 17.02* million rentals	1,450 stations, 12.25 million rentals	1,800 stations, 13 million rentals	3,000 stations, 19 million rentals

*The 2024 implementation results met the 2030 target.

As of December 2024, the Kaohsiung YouBike 2.0 public bicycle system has 1,392 rental stations and 13,000 public bicycles. Total users exceed 57 million. In 2024, the number of rentals reached 17.02 million, a 10% growth compared to 2023. The estimated cumulative carbon reduction is 11,309 metric tons. YouBike effectively enhances public transportation connections, becoming a key infrastructure in Kaohsiung's green transport network.

M Human-Centered Transportation
b. Optimization and Expansion of Bicycle Paths

Core Goal | Secondary Goal
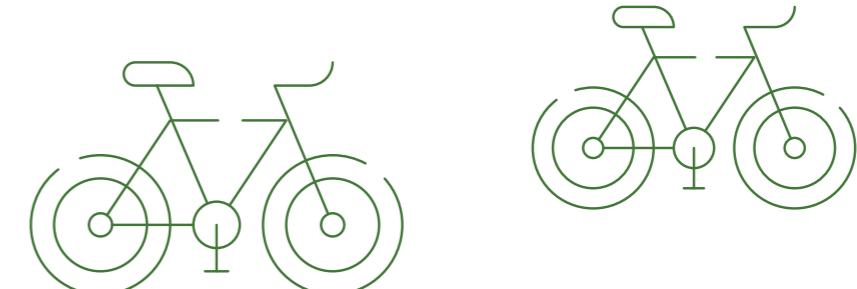
▶ **Results and Targets for Bicycle Path Optimization and Expansion**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Optimization and Expansion of Bicycle Paths (km)	1,070	1,081.5	1,063	1,100	1,170

Kaohsiung City has established a relatively complete bicycle path system. Key actions include expanding the network and strengthening facility management. In 2024, the length of bicycle paths reached 1,081.486 kilometers, reflecting a growth of 11.45 kilometers (1.07%) compared to 2023. This not only enhances the commuting experience but also contributes to reducing urban carbon emissions.

Cycling Route Usage

M Human-Centered Transportation
c. Optimization and Expansion of Sidewalks

Core Goal | Secondary Goal
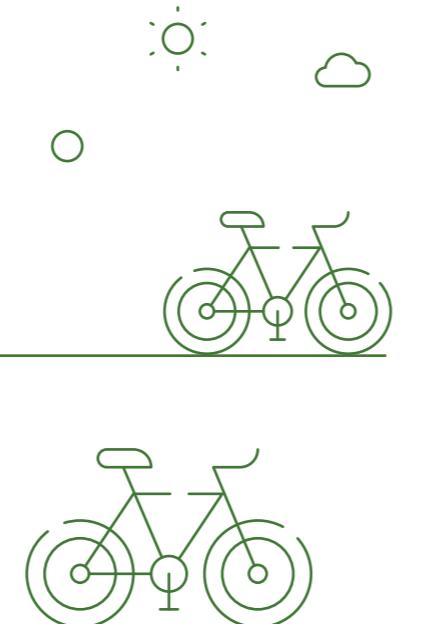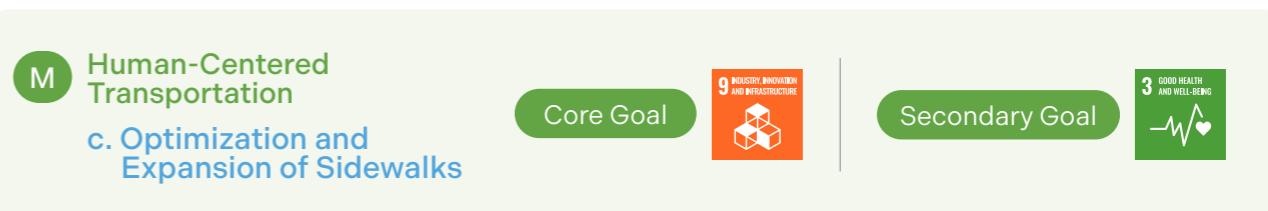
▶ **Results and Targets for Sidewalk Optimization and Expansion**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Optimization and Expansion of Sidewalks (km)	19.4	21.4	25.4	32.9	72.9

Kaohsiung is improving sidewalk flatness, accessibility, and connections to transport hubs, hospitals, and schools to promote walking. In 2024, improvements were completed on Yanchao Jhong-an Rd., Zuoying Huasia Rd., the Light Rail Da Shun Rd. corridor, and school paths for Shilong Elementary School and Xinzhuang Elementary School. The annual improvement length was 21.4 kilometers. The Fengshan Nanjing,Rd. pedestrian environment project won the 2024 Urban Project Quality Golden Quality Award.

Chung-Cheng industrial high school School Path Improvement

❹ Residential and Commercial Transformation

A Improving New Building Energy Efficiency | Core Goal [11 SUSTAINABLE CITIES AND COMMUNITIES] | Secondary Goal None

▶ Results and Targets for Improving New Building Energy Efficiency

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Improving Energy Efficiency of New Buildings	Continued promotion of the Kaohsiung House Design and incentive programs	Continued promotion of the Kaohsiung House Design and incentive programs	-	50% of new buildings meet specific energy efficiency standards	100% of new buildings meet specific energy efficiency standards

Kaohsiung's unique Kaohsiung House Design and Incentive Regulations is the core policy tool for improving new building energy efficiency. This measure, based on the geographical conditions and lifestyles of Kaohsiung, sets ten design criteria. Through legalized management and FAR incentives, the measure guides new projects to adopt design principles covering environmental load, social culture, service quality, and indoor environmental quality. From 2015 to the end of 2024, over 3,000 building projects have adopted the Kaohsiung House design, showing significant results in mitigating the urban heat island effect and improving rainwater retention.

Kaohsiung House Greening Building

B Improving Existing Building Energy Efficiency | Core Goal [9 INDUSTRY, INNOVATION AND INFRASTRUCTURE] | Secondary Goal [13 CLIMATE ACTION]
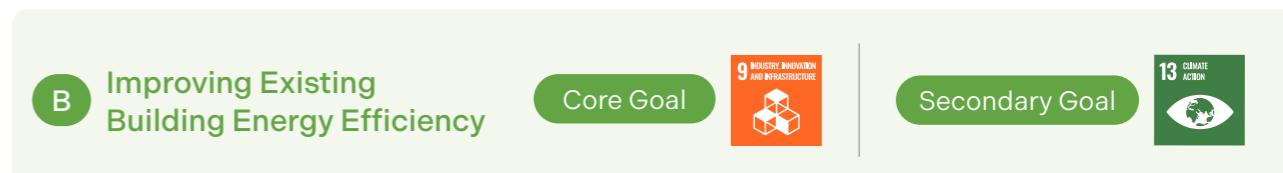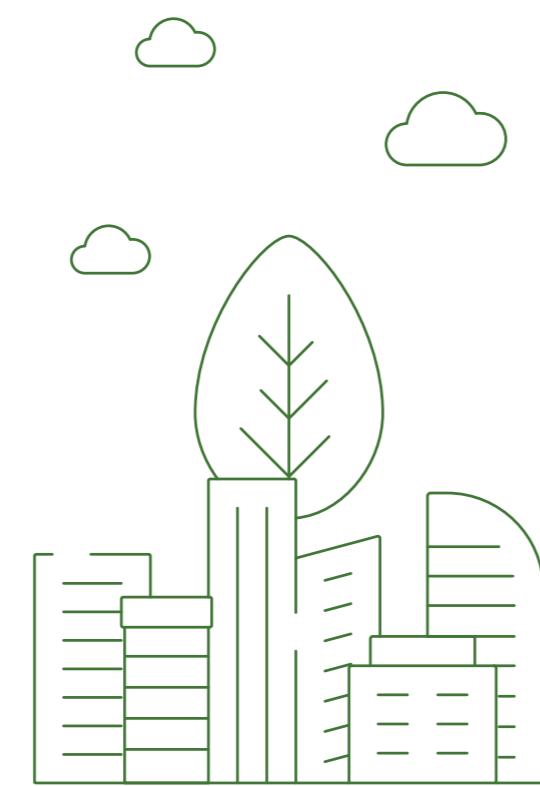
▶ Results and Targets for Improving Existing Building Energy Efficiency

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Improving Energy Efficiency of Existing Buildings	Planning for Low-Embodied Carbon Building Label Promotions	Hold LEBR promotion seminar	-	50% of public buildings will achieve Energy Efficiency Level 3	The promotion of Energy Saving Performance Project (ESCO); 85% of private buildings will achieve Energy Efficiency Level 1

To implement full lifecycle carbon management for buildings, the city is promoting energy efficiency disclosure and improvement, led by public buildings and expanding to private ones. The city holds seminars to promote new concepts like the "Low Embodied-carbon Building Rating System (LEBR)" to citizens and construction professionals. It also plans phased energy efficiency assessments for public buildings, requiring those that fall short to budget for improvements.

C Promote Carbon Inventory Indicator Buildings | Core Goal [13 CLIMATE ACTION] | Secondary Goal [9 INDUSTRY, INNOVATION AND INFRASTRUCTURE]
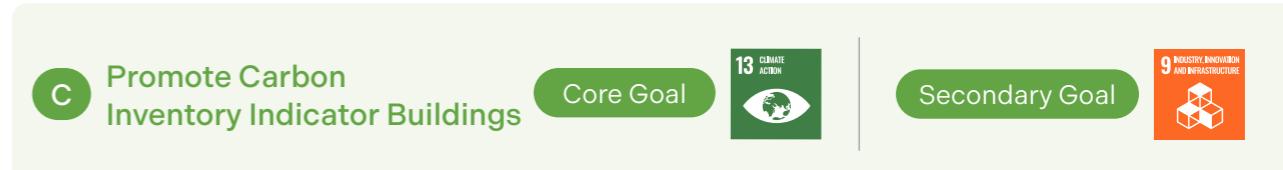
▶ Results and Targets for Promote Carbon Inventory Indicator Buildings

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Promote Carbon Inventory Indicator Buildings	Planning for ISO 14064-1 inventory	Kaohsiung City Cultural Center obtained ISO 14064-1 verification statement	-		

By holding the "2050 Net Zero Carbon Emissions target - Kaohsiung Cultural Facilities Action Plan" Meeting, the Kaohsiung City Cultural Center voluntarily initiated a GHG inventory, setting a benchmark for public facilities. The project, using 2023 as the base year, completed third-party verification in July 2024 and obtained the ISO 14064-1:2018 verification statement in September.

D **Kaohsiung House and Smart Buildings**   Core Goal [11 SUSTAINABLE CITIES AND COMMUNITIES]   Secondary Goal None

▶ **Results and Targets for Kaohsiung House and Smart Buildings**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Kaohsiung House and Smart Buildings	Cumulative greening area 1,002,555 m²	Cumulative greening area exceeds 76.5 hectares	-		

From 2015 to 2024, the Kaohsiung House design covered a total floor area of over 862,000 m², with an estimated annual carbon reduction benefit of 5,603 tons CO_2e, equivalent to the carbon absorption of 6.8 Kaohsiung Metropolitan Parks. The total greening area from landscape balconies and green energy facilities exceeds 76.5 hectares. The city will continue to combine building permits and green building management to move toward a low-carbon, resilient, and healthy city.
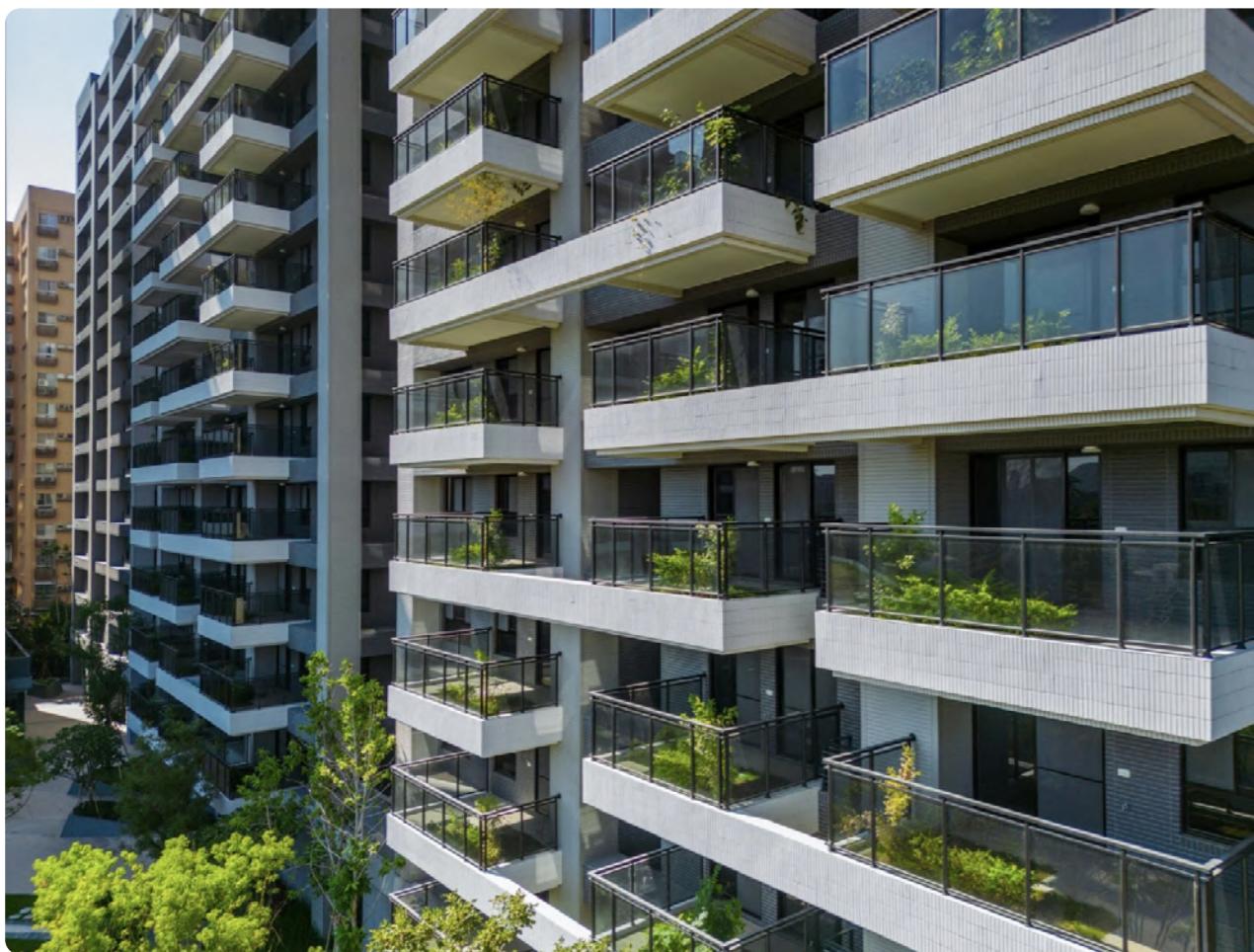
Kaohsiung House Landscape Balconies

E **Introduction of Low-Carbon Design in Social Housing**   Core Goal [9 INDUSTRY, INNOVATION AND INFRASTRUCTURE]   Secondary Goal None

▶ **Results and Targets for Introducing Low-Carbon Design in Social Housing**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Introduction of Low-Carbon Design in Social Housing	Completion of 1 social housing project with green building and smart building labels	Completion of 1 new social housing project with smart meters, green building label, and smart building label	Accumulation of 1 social housing project with green building label and smart meters	Accumulation of 4 social housing projects with green building label and smart meters	-

Kaohsiung fully incorporates smart and green building technologies into social housing construction. As of February 2025, 1 new social housing complex has been completed, equipped with smart meters and obtaining both Green Building and Smart Building labels, setting a benchmark for energy-saving, smart, and sustainable housing.

Kaixuan QingShu Social Housing

F Net-Zero Medical Institutions

Core Goal — 11 SUSTAINABLE CITIES AND COMMUNITIES

Secondary Goal — None
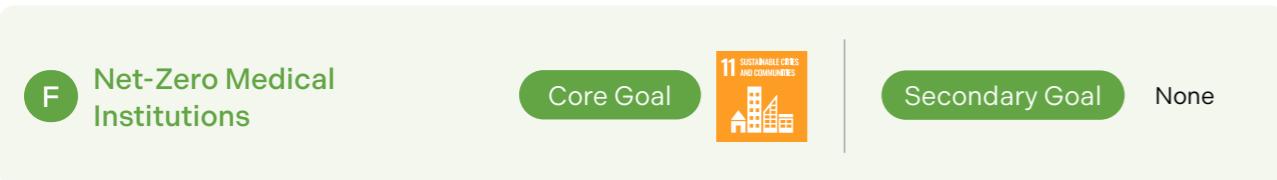
▶ **Results and Targets for Net-Zero Medical Institutions**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Net-Zero Medical Institutions	3 hospitals obtained Green Building labels	6 hospitals installed solar PV; 4 hospitals obtained Green Building labels	-		

Kaohsiung is prioritizing sustainable actions in its municipal hospitals. In 2024, 6 hospitals, including Kaohsiung Municipal Min-Sheng Hospital and Kai-Syuan Psychiatric Hospital, have installed solar PV. 4 hospitals, including Kaohsiung Municipal Chinese Medical Hospital and Kaohsiung Municipal Ta-Tung Hostipal, have obtained Green Building labels for new buildings. The average implementation rate of electronic medical records is 90.58%, and Green Procurement execution is 94.91%. 3 municipal hospitals have completed carbon inventories.

Kaohsiung Municipal Siaogang Hospital new building (left) utilizes green building design.

G Introduction of Low-Carbon Design in Campuses

Core Goal — 4 QUALITY EDUCATION, 11 SUSTAINABLE CITIES AND COMMUNITIES

Secondary Goal — None

▶ **Results and Targets for Introducing Low-Carbon Design in Campuses**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Number of Sustainable Campus Projects	244	256	274	314	-

The city promotes the "sustainable campuses project" for "Campus Sustainability Micro-Revolutions," including energy saving, resource recycling, and ecological sustainability. As of 2024, 256 related projects have been implemented by schools, such as installing external shading and collecting AC condensate. Lantian Elementary School, which began construction in May 2024, is Taiwan's first low-carbon campus model. It will feature 238 arbor trees, solar PV, a smart grid, and is expected to achieve Green Building, Smart Building, and Low-Carbon Building Bronze labels by its completion in 2026.

Lantian Elementary School New Teaching Area (Schematic)

H Parks and Green Spaces | Core Goal [13 CLIMATE ACTION] | Secondary Goal [9 INDUSTRY, INNOVATION AND INFRASTRUCTURE]

▶ **Results and Targets for Parks and Green Spaces**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Area of Park Green Spaces (hectares)	2,536	2,538.8	2,550.3	2,569	2,669

As of 2024, the city's developed urban plan park and green space area reached 2,538.8 hectares. Through community Community Empowerment grants, residents are guided to transform idle spaces. From 2022 to 2024, urban design reviews added 91.65 hectares of green cover. The EPB also assists precincts in participating in "Low-carbon sustainable homeland, Rating certification"; as of 2024, 619 precincts have joined.

Cianjhen District Shengxing Park Renovation

I Energy-Saving of Lighting Fixture/Signals | Core Goal [9 INDUSTRY, INNOVATION AND INFRASTRUCTURE] | Secondary Goal [13 CLIMATE ACTION]

▶ **Results and Targets for Energy-Saving of Lighting Fixture/Signals**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Installation Percentage of Energy-Saving Street Lights (%)	The city's over 120,000 traditional streetlights have been replaced with LED lights, reaching a 100% replacement rate.	The city's road LED streetlight replacement rate reached **100%**[*]; the park LED light replacement rate reached 26.05%.	By 2020, the city's streetlight LED ratio had already reached 100%		All park lighting also converted to LED (100%)

*The 2024 implementation results met the 2030 target.

Using a Private finance initiative (PFI) model, the city completed the "Kaohsiung City Comprehensive Replacement and Maintenance Project for Energy-Saving (Smart) Streetlights", replacing over 120,000 traditional streetlights with LEDs by 2020. This saves 120 million NTD annually and reduces emissions by 43,200 tons. The replacement of 15,000 park lights has also begun, with a 26.05% replacement rate as of 2024.
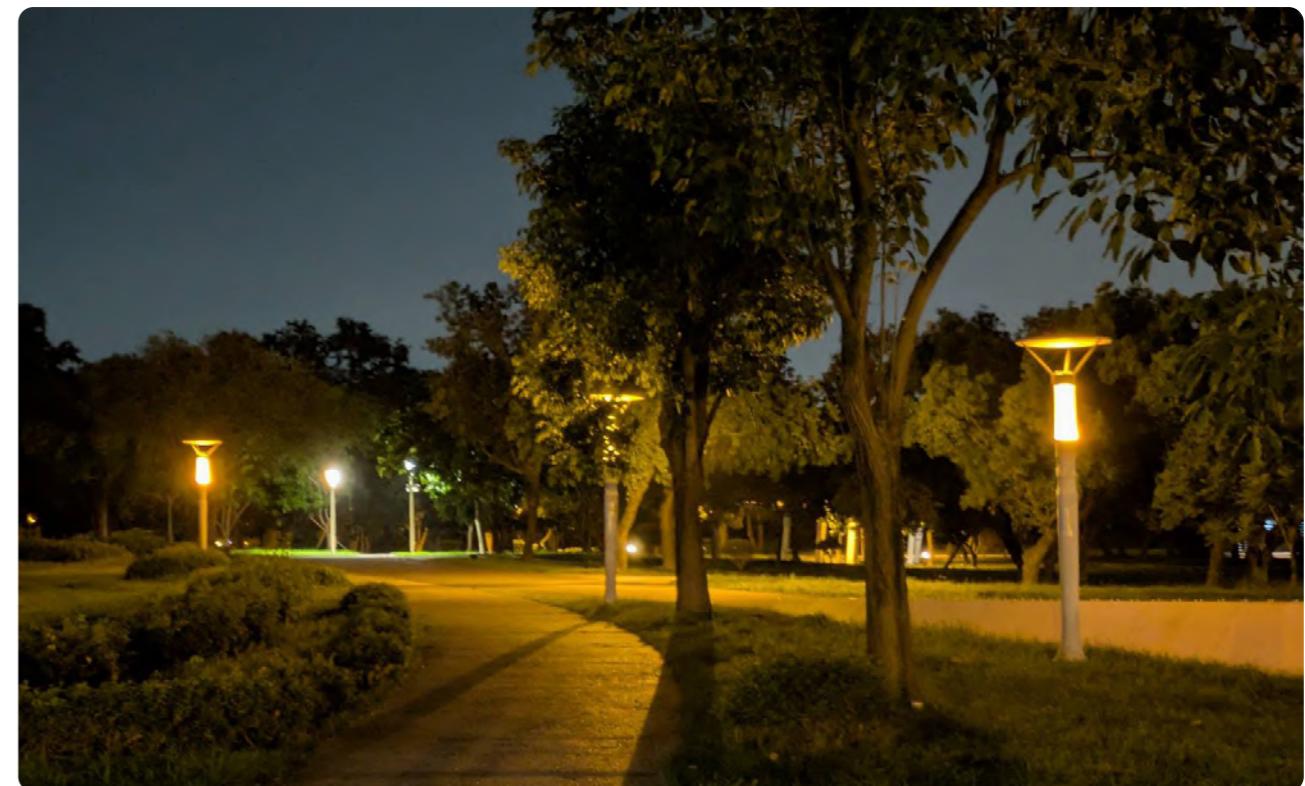
LED Energy-Saving Park Lights

J Energy Saving at Residential-Commercial Area

a. Directly-Governed Municipality and County/City Energy-Saving Partner Subsidy Program

Core Goal — 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Secondary Goal — 7 AFFORDABLE AND CLEAN ENERGY | 13 CLIMATE ACTION
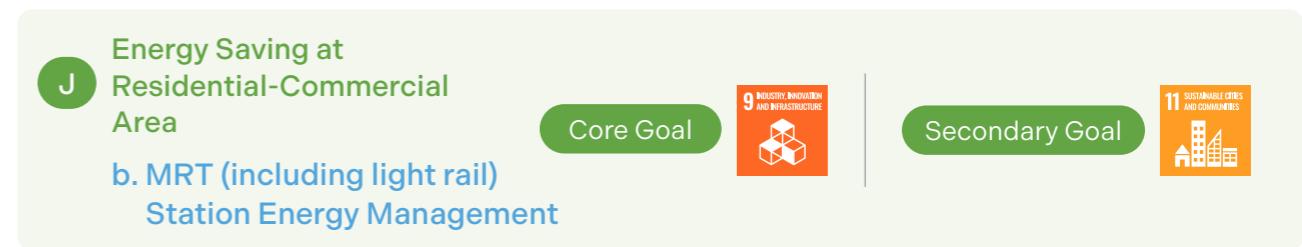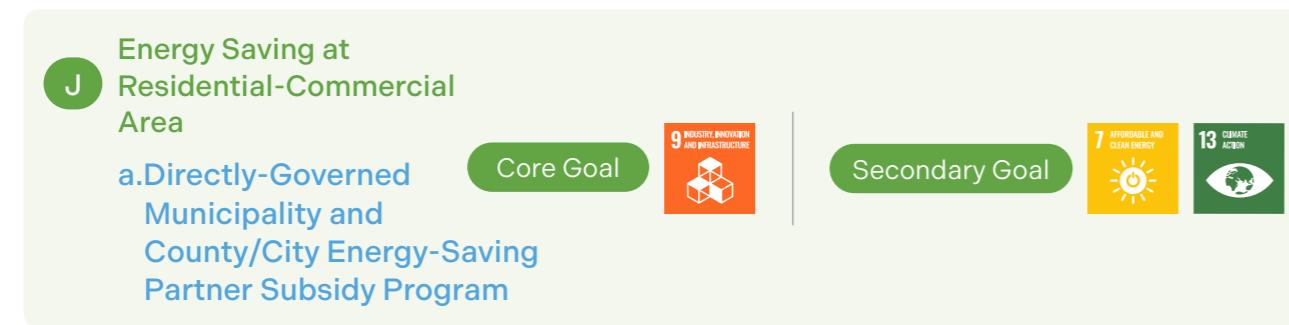
▶ **Results and Targets for the Energy-Saving Partner Subsidy Program**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Promotion of Energy Saving Performance Project (ESCO) (ESCO)	Accumulated guidance for 6 projects	Accumulated guidance for 24* projects	Accumulated guidance for 12 projects	Accumulated guidance for 18 projects	Accumulated guidance for 34 projects
Promotion of Energy Saving Performance Project (ESCO)	Accumulated guidance for 354 households	Accumulated guidance for 1382* households	Accumulated guidance for 601 households	Accumulated guidance for 900 households	Accumulated guidance for 1,700 households

*The 2024 implementation results met the 2030 target.

The city promotes ESCOs through seminars and subsidy assistance. Since 2021, 24 cumulative cases have been counseled, saving an estimated 10.7 million kWh annually. Per the Energy Administration Act, the city inspects 20 types of designated energy users; between 2021 and 2024, 1,382 cumulative inspections were conducted with a 99% compliance rate. Since 2017, over 200 energy-saving volunteers have been trained.

ESCO Energy Technical Service Promotion Seminar

J Energy Saving at Residential-Commercial Area

b. MRT (including light rail) Station Energy Management

Core Goal — 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Secondary Goal — 11 SUSTAINABLE CITIES AND COMMUNITIES

▶ **Results and Targets for MRT (including light rail) Station Energy Management**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
MRT (including light rail) Station Energy Saving	1.89 million kWh saved	4.68 million kWh saved	-		

The Kaohsiung Rapid Transit Corporation continues to enhance station energy management. In 2024, by replacing chillers, pumps, cooling tower materials, and lighting, and by flexibly adjusting A/C operating times, the company achieved a total electricity saving of 4.68 million kWh.

❺ Agricultural Transformation

| **A** Recycled Agricultural Waste | Core Goal | | Secondary Goal | None |
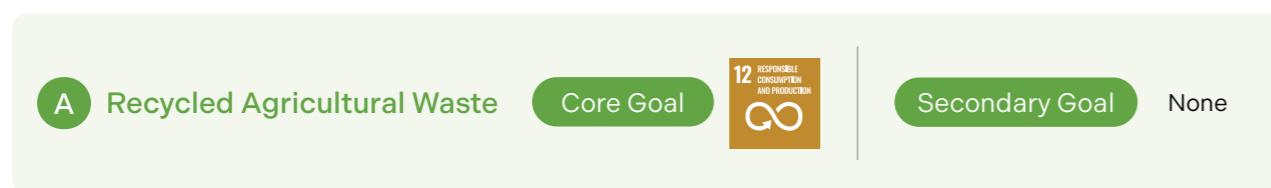
▶ **Results and Targets for Recycled Agricultural Waste**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Recycle rate of agricultural waste	85%	**92.28%**[*]	85.33%	85.7%	90%

[*]The 2024 implementation results met the 2030 target.

Through training with Farmers' Associations and promoting solid-liquid separation for manure, the city's agricultural waste recycling rate reached 92.28% in 2024.

B Livestock Manure Resource Recovery - Livestock Manure Reuse / Livestock Farm Energy Saving | Core Goal | | Secondary Goal |
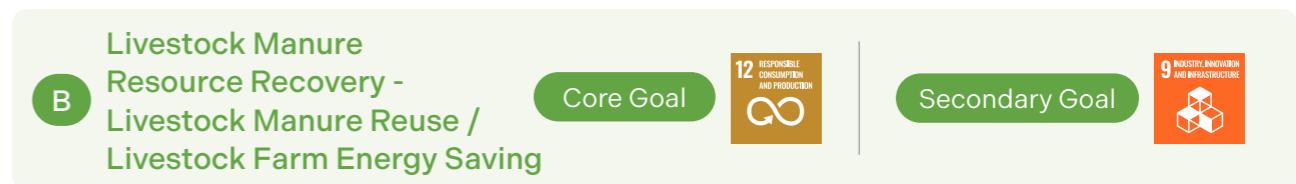
▶ **Results and Targets for Livestock Manure Resource Recovery**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Livestock Manure Resource Recovery Rate (%)	33.5%	35%	38.34%	45%	85%

Kaohsiung promotes the use of treated livestock slurry for crop irrigation. As of 2024, 206 farms are approved, irrigating 251 hectares, bringing the resource utilization rate to 35%. The "Demonstrative Project For Er-Jen River Sustainable Water Quality" in Neimen integrates 15 farms. In 2024, this project generated 288,400 kWh of electricity from biogas, with methane reduction equivalent to 2,081 tons of CO_2e.
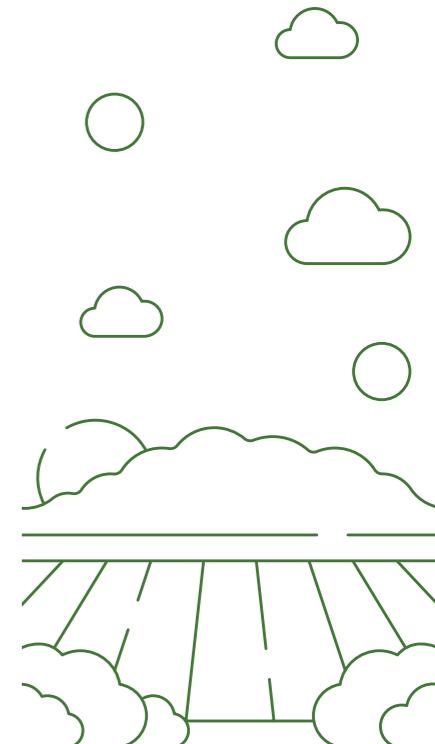
C Livestock Wastewater Resource Recovery | Core Goal | 12 RESPONSIBLE CONSUMPTION AND PRODUCTION ∞ | Secondary Goal | None

▶ **Results and Targets for Livestock Wastewater Resource Recovery**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Citywide Livestock Wastewater Resource Recovery Rate	4%	4.6%	6.3%	10%	20%

The city actively guides its 402 regulated livestock farms. As of 2024, 168 farms have been approved for "slurry as fertilizer" plans, covering 197.36 hectares. This is expected to reduce BOD by 698.87 tons and suspended solids by 904.28 tons annually.

Livestock Wastewater Treatment Equipment

D Low-Carbon Agricultural and Fishery – Agricultural Machinery Carbon Reduction | Core Goal | 12 RESPONSIBLE CONSUMPTION AND PRODUCTION ∞ | Secondary Goal | None

▶ **Results and Targets for Agricultural Machinery Carbon Reduction**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Agricultural Machinery Carbon Reduction	630 units replaced	746 units replaced	-	1,000 units replaced	3,000 units replaced

The city encourages farmers to replace old fuel-based machinery with electric models. In 2024, the plan subsidized 746 new electric farm machines.

E Low-Carbon Agricultural and Fishery - Fishery Carbon Reduction | Core Goal | 12 RESPONSIBLE CONSUMPTION AND PRODUCTION ∞ | Secondary Goal | None

▶ **Results and Targets for Fishery Carbon Reduction**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Low-Carbon Agricultural and Fishery - Fishery Carbon Reduction	1,101 vessels approved	1,070 vessels approved	-		

The city promotes the "Incentive Fallowing Program" to reduce fishing pressure and fuel use. In 2024, 1,070 vessels qualified for fallowing incentives, with an estimated carbon reduction of 14,338 tons CO_2e.

F Low-Carbon Agricultural and Fishery - Local Ingredients Promotion | Core Goal | [4 QUALITY EDUCATION] | Secondary Goal | [2 ZERO HUNGER] [12 RESPONSIBLE CONSUMPTION AND PRODUCTION]

▶ **Results and Targets for Local Ingredients Promotion**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Low-Carbon Agricultural and Fishery - Local Ingredients Promotion	96 nutrition education sessions	948 nutrition education sessions	-		

The city promotes local produce-local market concepts through farmers' markets and "Green Friendly Restaurant" certifications (45 restaurants by 2024). 47 lesson plans are integrated into the "Kaohsiung Food and Agriculture Education" website. The Community Nutrition Promotion Center conducted 948 group nutrition education sessions from 2018 to 2024.

Parent-Child Cooking Camp Activity

G Low-Carbon Agricultural and Fishery - School Vegetarian Promotion | Core Goal | [3 GOOD HEALTH AND WELL-BEING] | Secondary Goal | [4 QUALITY EDUCATION]
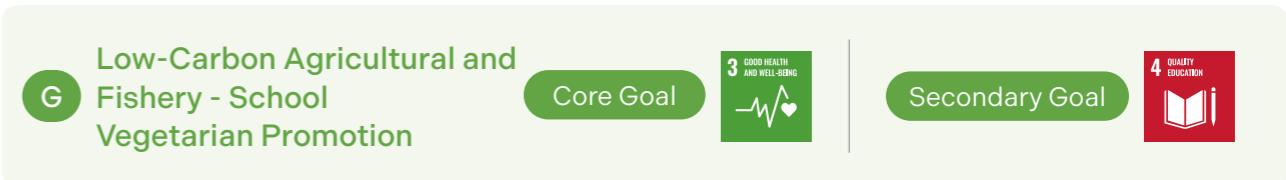
▶ **Results and Targets for School Vegetarian Promotion**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Low-Carbon Agricultural and Fishery - School Vegetarian Promotion	6,088 tons CO_2e reduction	6,763 tons CO_2e reduction	-		

Since the 2022 school year, public schools have implemented "one vegetarian day per week." 330 schools use the "campus food ingredients registration platform 2.0". 30 schools participated in "Campus Fruits and Veggies 579" and 37 schools in "little LOHAS". In 2024, the estimated carbon reduction from campus vegetarian days was 6,763 tons.

H Greening of Detention Basin

Core Goal 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Secondary Goal 13 CLIMATE ACTION

▶ **Results and Targets for Greening of Detention Basin**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Area of Green Spaces surrounding the Detention Basins (hectares)	200	200	201	204	214

As of 2024, the city's 25 detention ponds, totaling 200 hectares and providing 4.98 million tons of flood capacity, also serve as urban green lungs. These ponds feature 8,085 arbor trees and 85.91 hectares of grass.

Baoye Flood Prevention Park

6 Environmental Transformation

A Recovery of Incineration Ash for Reuse

Core Goal 11 SUSTAINABLE CITIES AND COMMUNITIES

Secondary Goal 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

▶ **Results and Targets for Recovery of Incineration Ash**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Combustion Bottom Ash Reuse Rate	100%	98.9%*	83.3%	84%	93%

*The 2024 implementation results met the 2030 target.

The city's four incinerators produce 170,000 tons of bottom ash annually. The city treats this ash into aggregate for use as Controlled Low Strength Material (CLSM) in public works. In 2024, 179,000 tons of recycled aggregate were used, reducing an estimated 2,462 tons of CO_2e.

Pouring of Controlled Low Strength Material (CLSM) from Recycled Aggregate

B Reuse of industrial waste

| | Core Goal | 12 RESPONSIBLE CONSUMPTION AND PRODUCTION | Secondary Goal | None |

▶ Results and Targets for Reuse of industrial waste

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Reuse rate of industrial waste	87.3%	87.75%	91.13%	91.5%	95%

Through periodic reporting, audits, and electronic tracking, Kaohsiung's industrial waste reuse rate reached 87.75% in 2024. Future policy will focus on high-value products, such as turning slag into green building materials or organic waste into SRF.

C Reuse of industrial food waste

| | Core Goal | 12 RESPONSIBLE CONSUMPTION AND PRODUCTION | Secondary Goal | None |

▶ Results and Targets for Reuse of industrial food waste

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Reuse rate of industrial food waste	96.6%	92.7%	94.38%	95.5%	98%

The city promotes the resource utilization of industrial food waste for feed and organic fertilizer. In 2024, the industrial food waste reuse rate was 92.7%. Future development will focus on energy (anaerobic digestion for biogas) and high-value raw materials (feed additives, enzymes).

D Promotion of Reclaimed Water

| | Core Goal | 6 CLEAN WATER AND SANITATION | Secondary Goal | None |

▶ Results and Targets for Promotion of Reclaimed Water

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Reclaimed Water Production	89,000CMD	83,000CMD	100,500CMD	188,800CMD	215,000CMD

The Fongshan and Linhai Water Resources Centers currently supply 83,000 tons of recycled water daily to the Linhai Industrial area (e.g., China Steel Corporation, CPC Corporation, Taiwan). The Ciaotou and Nanzih reclaimed water plants are now under design and construction to support the semiconductor corridor.

Fongshan Water Resources Center

E Landfill Revitalization and Biogas Power Generation

Core Goal **9** INDUSTRY, INNOVATION AND INFRASTRUCTURE

Secondary Goal **12** RESPONSIBLE CONSUMPTION AND PRODUCTION
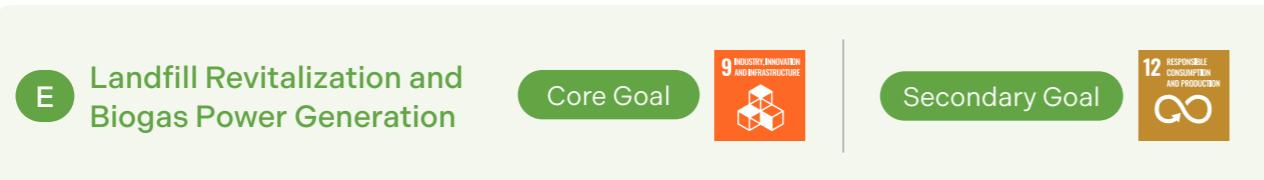
▶ **Results and Targets for Landfill Revitalization and Biogas Power Generation**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Landfill Revitalization and Biogas Power Generation	59,000 m³ cumulative increase	119,000 m³ cumulative increase	-	330,000 m³ cumulative increase	Transform landfill into diversified temporary storage sites

The Lujhu Alian Sanitary Landfill revitalization project will add 234,000 m³ of space. The Cingpu Sanitary Landfill utilizes biogas for power generation. In 2024, the cumulative increased landfill space was 119,000 m³, biogas treatment volume was 2.22 million m³, and power generation reached 3.55 million kWh, transforming the former landfill into the Environmental protection Metropolitan Park.

F Improvement of Sewage Treatment Rate and Sewer Coverage Rate

Core Goal **9** INDUSTRY, INNOVATION AND INFRASTRUCTURE

Secondary Goal **6** CLEAN WATER AND SANITATION **12** RESPONSIBLE CONSUMPTION AND PRODUCTION

▶ **Results and Targets for Improving Sewage Treatment Rate and Sewer Coverage Rate**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Sewage Treatment Rate	74.45%	74.92%	76.57%	82.57%	100%
Sewer Coverage Rate	50.22%	50.93%	53%	57%	77%

As of December 2024, the city's wastewater treatment rate was 74.92%, and the public sewer user connection rate was 50.93%. The city continues to seek central government funding to implement user connection projects.

Sewage System Engineering

G Diversified Food Waste Reuse - Food Waste, Sewage Treatment, Co-Digestion

Core Goal — 6 CLEAN WATER AND SANITATION

Secondary Goal — 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE · 12 RESPONSIBLE CONSUMPTION AND PRODUCTION

▶ **Results and Targets for Diversified Food Waste Reuse**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Diversified Food Waste Reuse (tons)	10,433.9	17,705		-	

In 2024, city sanitation teams collected 17,705 tons of food waste. Pig-feed food waste is sold to qualified farms; compostable food waste is sent to Dashe food waste composting facility and Mituo food waste composting facility. In 2024, 2,202.92 tons of food waste were converted into 218.804 tons of reusable products.

Food Waste Sorting Bins on Garbage Truck

H Waste Reduction

Core Goal — 11 SUSTAINABLE CITIES AND COMMUNITIES

Secondary Goal — 12 RESPONSIBLE CONSUMPTION AND PRODUCTION
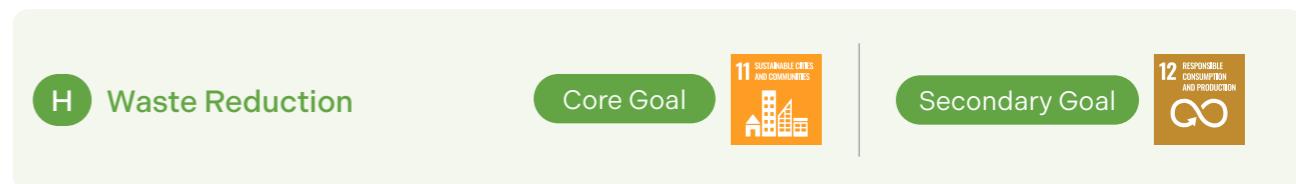
▶ **Results and Targets for Waste Reduction**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Waste Reduction (CO$_2$e reduction)	1,532.64 tons	3,072 tons		-	

The city's policy restricting single-use plastic cups is estimated to reduce 3,072 tons of CO_2e annually. In 2024, a reusable container promotion in the Sanduo Shopping District reduced 714.62 kg of CO_2e.

Kaohsiung Beverage Shop Plastic Reduction Alliance

I **Volume of Resource Recycling** | Core Goal | 12 RESPONSIBLE CONSUMPTION AND PRODUCTION | Secondary Goal | 6 CLEAN WATER AND SANITATION | 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

▶ **Results and Targets for Volume of Resource Recycling**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Volume of Resource Recycling (10K tons)	92.5	96.31*	89.3	92	94

*The 2024 implementation results met the 2030 target.

Kaohsiung's resource recycling volume grew from 705,727 tons in 2019 to 963,095 tons in 2024. The city continues to promote corporate-sponsored and Automatic Recycling Machine (ARM) locations.

Public Utilizing the Automatic Recycling Machine (ARM) to Recycle PET Bottles

J **Reuse of Recyclable Materials** | Core Goal | 12 RESPONSIBLE CONSUMPTION AND PRODUCTION | Secondary Goal | 8 DECENT WORK AND ECONOMIC GROWTH | 17 PARTNERSHIPS FOR THE GOALS

▶ **Results and Targets for Reuse of Recyclable Materials**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Small Appliance and Toy Repair Service Events	22 events / 213 items	18 events / 177 items	-		

The EPB operates two woodworking shops in Zuoying and Zihguan to repair and resell discarded furniture. Since 2019, it has also partnered with craftspeople for small appliance and toy repair. In 2024, 18 repair service events were held, successfully repairing 113 appliances and 64 toys.

Toy Repair Activity

K Incinerator Reconstruction and Improvement Project- Incinerator Transformation

Core Goal — 6 CLEAN WATER AND SANITATION

Secondary Goal — 7 AFFORDABLE AND CLEAN ENERGY / 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE / 13 CLIMATE ACTION
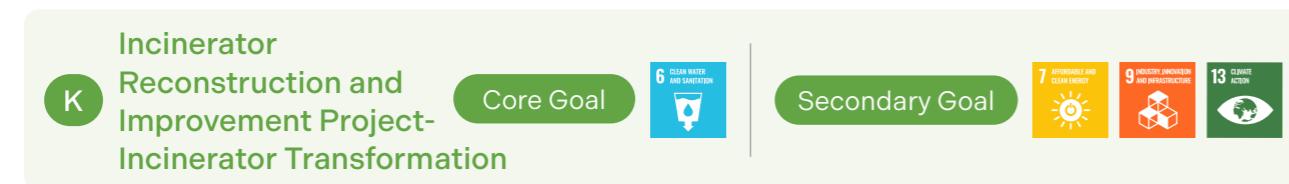
▶ **Results and Targets for Incinerator Reconstruction and Improvement Project**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Incinerator Reconstruction and Improvement Project	Plan ROT renovation	System and equipment updates to increase overall operational rate and equipment efficiency	Renovation of existing incinerators	Planning for operation of renewable energy power plants	Introduction of carbon capture in incinerators

Kaohsiung has initiated renovations for its four incinerators. The South District plant is planned as a BOT "AI Smart High-Efficiency Incinerator". The Renwu waste management plant's ROT project introduced regenerative variable frequency drives (VFDs), saving 440,000 kWh annually. The Gangshan waste management plant upgrade achieved 50% energy savings. The Central District waste management plant is scheduled for upgrades in 2026.
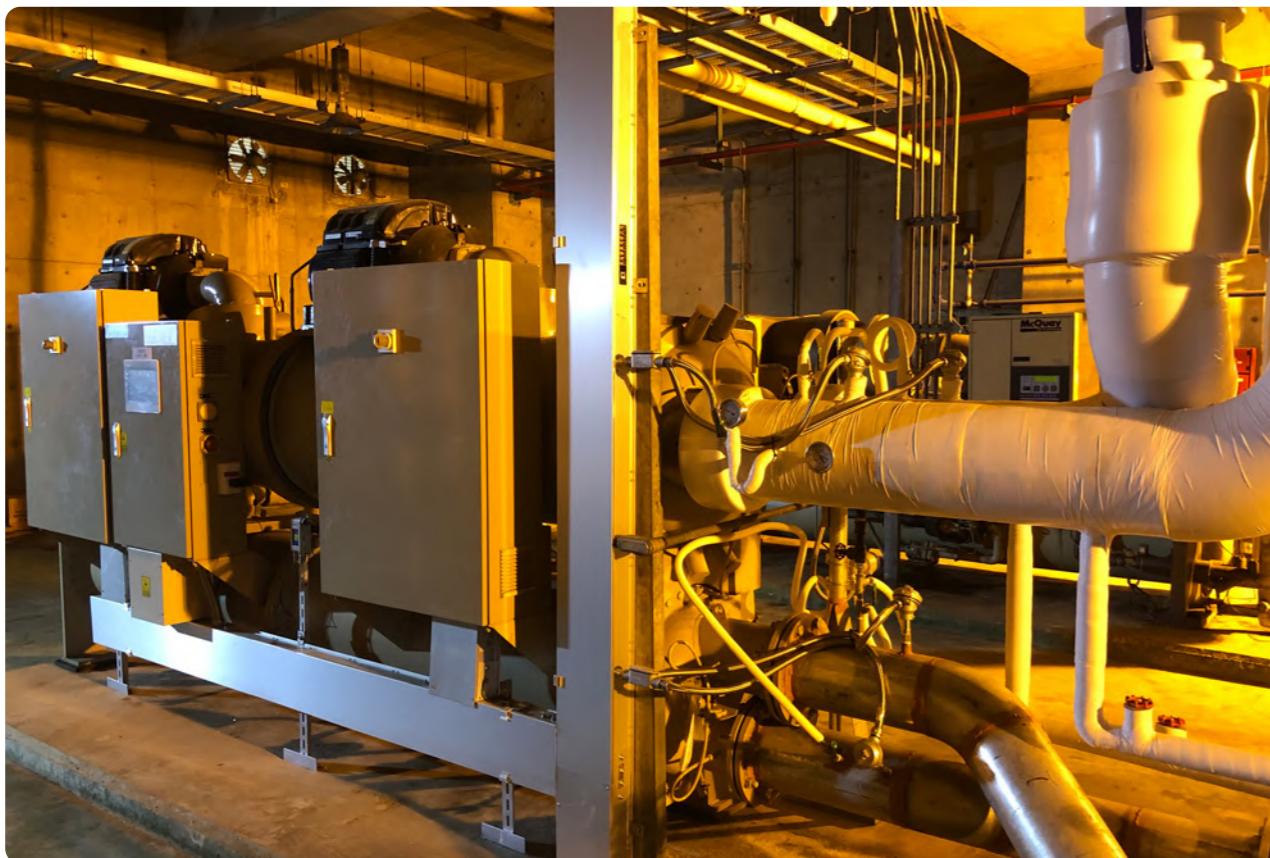
Renwu waste management plant Chiller Upgraded with Inverter Control System

L Fine Sorting Sites

Core Goal — 12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Secondary Goal — 6 CLEAN WATER AND SANITATION / 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

To improve recycling quality, Kaohsiung is promoting a modern "Resource Recycling Fine Sorting Sites". In 2024, this project received a 4.9 million NTD grant from the Ministry of Environment's Resources Circulation Administration for a feasibility study, and 8 million NTD from the Environmental Fund Management Committee for land development. The plant, planned via a PFI model, will have a capacity of at least 200 tons/day and sort over 56 categories.

❼ Green Lifestyle

Ⓐ Food – Zero Waste and Low-carbon Diet

The Kaohsiung City Government views the transformation of dietary culture as a key part of promoting a green lifestyle. This includes comprehensive guidance from ingredient selection, restaurant operations, to consumption habits. The city government, in collaboration with agencies, campuses, and communities, vigorously advocates for the concept of low-carbon diets centered on vegetarian food, making health and environmental protection a daily part of the dining table. At the same time, it guides local restaurant operators to join the "Green Friendly Restaurant" ranks and invites citizens to support these sustainable businesses through marketing activities. Furthermore, the city is committed to promoting the value of "Sparing Food," calling for cherishing food from the source and encouraging the use of reusable tableware to gradually reduce single-use product waste.

▶ Results and Targets for Food – Zero Waste and Low-carbon Diet

Plan		Promote Low-Carbon Diet		Environmental Restaurants		Promote the "Cherishing Food" philosophy	Promote Circular Use of Utensils	
Plan		Raise awareness among relevant organizations, schools, and the public to respond to low-carbon diets (vegetarian).	Implement Low-Carbon Diet in Government Agencies.	Encourage local restaurants to join the environmental restaurant initiative.	Conduct marketing campaigns to promote local environmental restaurants.	Combine related events to promote the "Cherishing Food" philosophy.	Encourage the public to avoid single-use products	Provide take-out and delivery services using reusable containers in the food industry.
Core Goal		SDG 12	SDG 12	SDG 12	SDG 12	SDG 12	SDG11	SDG11
Secondary Goals		SDG 2 SDG 3 SDG 13	SDG 2 SDG 3 SDG 13	SDG 2 SDG 3 SDG 13	SDG 2 SDG 3 SDG 13	SDG 2 SDG 3 SDG 13	SDG 12	SDG 12
Previous Year's Results	2023	8 sessions	97%	315 restaurants	8 sessions	20 sessions	215,880 units	179 businesses
Implementation Results	2024	38* sessions	97%*	455* restaurants	43* sessions	28 sessions	218,727 units	199 businesses
Targets	2026	10 sessions	95%	160 restaurants	10 sessions	25 sessions	257,000 units	200 businesses
	2030	20 sessions	97%	200 restaurants	20 sessions	30 sessions	390,000 units	300 businesses
	2050	• Establish product category rules (PCR) for consumers to calculate dietary carbon emissions. • Promote zero kitchen waste in the food service industry. • Encourage restaurants to use non-disposable utensils (including bowls, chopsticks, and food containers). • Promote sustainable markets, providing diverse low-carbon products and services.						

*The 2024 implementation results met the 2030 target.

Ⓑ Clothing – Environmentally Friendly Washing and Wearing

Kaohsiung's sustainable clothing practice focuses on the circular life of used clothes and environmentally friendly daily washing. The city government increases recycling channels, smooths out reuse systems, and, paired with diverse advocacy activities, makes used clothing recycling a convenient daily option for citizens, thereby extending the value of clothing and reducing waste. The city also encourages citizens to purchase cleaning agents with the Green Mark to support environmentally friendly products, implementing sustainable concepts in every aspect of life.

▶ Results and Targets for Clothing – Environmentally Friendly Washing and Wearing

Plan		Promote Old Clothing Recovery		Implement Environmentally Friendly Cleaning Products
Plan		Increase channels for old clothing recovery and facilitate reuse	Strengthen Awareness of Old Clothing Recovery Methods.	Promote the purchase of green mark laundry detergents.
Core Goal		SDG 12	SDG 12	SDG 12
Secondary Goals		SDG 11	SDG 11	SDG 11
Previous Year's Results	2023	126 points	26 sessions	4 sessions
Implementation Results	2024	153* points	26 sessions	21* sessions
Targets	2026	80 points	20 sessions	5 sessions
	2030	100 points	40 sessions	10 sessions
	2050	• Set up an online platform for exchanging second-hand clothing to promote recycling. • Promote the use of green mark laundry detergents in laundromats. • Encourage clothing manufacturers to design environmentally friendly garments, such as using single materials, durable materials, and local or recycled materials for easier recycling.		

*The 2024 implementation results met the 2030 target.

C Housing – Household Resource Recycling, Improvement of Living Quality

The city government actively promotes the concept of Low-carbon sustainable homeland, encouraging citizens to internalize resource recycling as a life habit and improving the overall living environment by establishing air quality purification zones and clean air green walls. The city also vigorously promotes products with green, energy-saving, water-saving, and green building material labels, supporting citizens in making more environmentally friendly choices when purchasing home goods. This series of measures links the sustainable actions of every household, concretely improving the quality of residence while also making every citizen an important force in Kaohsiung's practice of net-zero living.

▶ **Results and Targets for Housing – Household Resource Recycling, Improvement of Living Quality**

	Promote Zero-Carbon Homes			Promote Green Mark, Environmentally Friendly Products, and Products with Energy-saving, Water-Saving, and Green Building Materials label products
Plan	Advocate for low-carbon sustainable homes.	Establishing Air Quality Maintenance Zones	Promote Clean Air Green Walls	Promote Green Mark, Environmentally Friendly Products, and Products with Energy-saving, Water-Saving, and Green Building Materials label products
Core Goal	SDG 11	SDG 11	SDG 11	SDG 12
Secondary Goals	SDG 3 SDG 13	SDG 3 SDG 15	SDG 3 SDG 15	SDG 13 SDG 14
Previous Year's Results 2023	137 locations	430 locations	22 locations	10 sessions
Implementation Results 2024	30 locations	443 locations	32 locations	10 sessions
Targets 2026	75 locations	456 locations	26 locations	10 sessions
2030	85 locations	481 locations	41 locations	20 sessions
2050	• Appliances, and Shared Spaces. • Increase the recycling rate to 80%. • 85% of private buildings within Kaohsiung achieve Grade 1 energy efficiency. • 30% of major energy users in Kaohsiung use renewable energy. • Full adoption of high-efficiency lighting.			

D Transportation – Low Carbon Transport Network

Kaohsiung's low-carbon transport strategy focuses on the public sector leading by example, thereby driving broad citizen participation. The city team injects green momentum into urban traffic by promoting the "Eco-Rider Team" and replacing all sanitation department official vehicles with electric ones. At the same time, it accelerates the phase-out of high-pollution two-stroke scooters, assisting citizens in transitioning to more environmentally friendly modes of transport through subsidies. This series of policies and practical actions aims not only to reduce carbon emissions but also to create a safe, healthy, and sustainable urban transport system.

▶ **Results and Targets for Transportation – Low Carbon Transport Network**

	Electrification of Transportation	Strengthen Replacement of Old Vehicles
Plan	Promote the Eco-Riders team, replacing the cleaning team's vehicles with electric vehicles.	Promote the replacement of two-stroke scooters.
Core Goal	SDG 12	SDG 12
Secondary Goals	SDG 11	SDG 11
Previous Year's Results 2023	40 vehicles	8,633 vehicles
Implementation Results 2024	57 vehicles	14,999 vehicles
Targets 2026	Fully replace with electric scooters	27,694 vehicles
2030		33,694 vehicles
2050	• Develop a comprehensive light rail network. • Fully electrify buses. • Ensure public parking lots have electric vehicle charging infrastructure. • Promote vehicle sharing models, transitioning from ownership to shared usage.	

E Education – Public Dialogue

The Kaohsiung City Government builds communication bridges between the government and citizens by enhancing the certification of environmental education facilities, offering diverse net-zero related courses, and using social media platforms for information disclosure and advocacy. These concrete actions, from education to implementation, are dedicated to disseminating sustainable knowledge from professional fields into citizens' daily lives, rooting green awareness, and ultimately consolidating a shared social responsibility to move towards a net-zero future with all citizens.

▶ Results and Targets for Education – Public Dialogue

Plan		Public Education		Shared Responsibility	Information Disclosure
		Enhance the certification of environmental education facilities.	Launch Zero-Carbon or Green Lifestyle Courses (physical or online)	Organize Green Lifestyle promotional events.	Publish zero-carbon-related knowledge or activity information on government public platforms.
Core Goal		SDG 4	SDG 4	SDG 12	SDG 12
Secondary Goals		-	-	SDG 4 SDG 13	SDG 4 SDG 13
Previous Year's Results	2023	19 locations	23,619 hours	24 sessions	30 entries
Implementation Results	2024	23* locations	30,596* hours	38 sessions	40 entries
Targets	2026	20 locations	22,500 hours	24 sessions	40 entries
	2030	22 locations	24,000 hours	60 sessions	50 entries
	2050	• Increase public awareness of green living. • Integrate "Green Lifestyle" curriculum into middle and elementary school courses. • Cultivate "Green Lifestyle" seed instructors to promote the concept.			

*The 2024 implementation results met the 2030 target.

F Recreation – Low-Carbon Tourism and Green Life

The core of Kaohsiung's sustainable tourism development lies in counseling and increasing the number of local Green Mark travel agencies and hotels. This approach aims to provide all visitors to Kaohsiung with green travel options starting from their accommodation choices, turning every journey into a concrete action that supports local sustainable industries and practices environmental friendliness, thereby building Kaohsiung into an international low-carbon travel destination. In response to the Ministry of Environment's policy adjustment, the eco-hotel system will be discontinued from January 2025, and future statistics will not be collected. Related achievements will be merged into the Green Mark hotel performance.

▶ Results and Targets for Recreation – Low-Carbon Tourism and Green Life

Plan		Promote Low-Carbon Tourism		
		Increase the number of eco-label-certified travel agencies.	Increase the number of eco-label-certified travel accommodations.	Green FIT Itineraries
Core Goal		SDG 12	SDG 12	SDG 12
Secondary Goals		SDG 3 SDG 9 SDG 13	SDG 3 SDG 9 SDG 13	SDG 3 SDG 9 SDG 13 SDG 17
Previous Year's Results	2023	134 agencies	11 agencies	-
Implementation Results	2024	145* agencies	9 agencies	31 itineraries on MOE platform
Targets	2026	121 agencies	12 agencies	-
	2030	145 agencies	15 agencies	-
	2050	• Promote low-carbon sports events and activities. • Develop a low-carbon tourism environment in Kaohsiung (eco-labeled hotels, green restaurants, public transportation, etc.).		

*The 2024 implementation results met the 2030 target.

G Shopping – Sharing Economy

Kaohsiung's sustainable consumption is practiced through "sharing economy" and "Green Procurement". The city actively promotes product-sharing services, making "using instead of owning" a new consumption trend. It also collaborates with businesses and stores to increase the use of eco-friendly products and instills the concept of green consumption through carbon label advocacy activities. Furthermore, the city is dedicated to extending the lifecycle of goods by establishing second-hand circulation stores, organizing furniture recycling, and holding small appliance repair activities. From sharing to repairing, every consumption choice contributes a key force to building Kaohsiung into a friendly and resilient green city.

▶ Results and Targets for Shopping – Sharing Economy

Plan		Replace Purchasing with Services	Promote Environmentally Friendly Products			
		Reward or encourage product-sharing economic services.	Encourage local businesses to implement green procurement.	Encourage government agencies to implement green procurement.	Promote sales of eco-friendly products in green stores.	Organize carbon label promotional events.
Core Goal		SDG 12	SDG 12	SDG 12	SDG 12	SDG 12
Secondary Goals		SDG 8 SDG 17	SDG 16 SDG 17	SDG 16 SDG 17	SDG 16 SDG 17	SDG 13 SDG 14
Previous Year's Results	2023	18 agencies	NT$5.7 billion	662 agencies	NT$920 million	15 events
Implementation Results	2024	15* agencies	NT$5.93 billion	676* agencies	NT$1,140* million	25 events
Targets	2026	2 agencies	NT$7 billion	510 agencies	NT$700 million	25 events
	2030	5 agencies	NT$7.5 billion	530 agencies	NT$1,000 million	30 events
	2050	• Promote low-carbon products and establish individual carbon asset accounts. • Carbon footprint labeling for products and services, empowering people with low-carbon choices and promoting low-carbon production activities. • Promote low-carbon business models.				

*The 2024 implementation results met the 2030 target.

Plan		Promote Resource Reuse and Extend Item Life			
		Establish second-hand goods and old clothing recycling concept stores.	Handle large furniture collection, processing, and reuse.	Organize small appliance and toy repair service events.	Promote recycling and organize second-hand markets.
Core Goal		SDG11	SDG12	SDG12	SDG11
Secondary Goals		SDG12	-	SDG 8 SDG 17	SDG 12
Previous Year's Results	2023	595 stores	21,000 tons	22 events, 213 items	6 events, 16,781 item
Implementation Results	2024	598* stores	25,000 tons	18 events, 177 items	3 events, 6,600 item
Targets	2026	450 stores	20,000 tons	15 events, 600 items	10 events, 10,000 items
	2030	550 stores	22,000 tons	30 events, 1,350 items	20 events, 200,000 items
	2050	• Promote low-carbon products and establish individual carbon asset accounts. • Carbon footprint labeling for products and services, empowering people with low-carbon choices and promoting low-carbon production activities. • Promote low-carbon business models.			

*The 2024 implementation results met the 2030 target.

❽ Carbon Sinks

| **A** Forest Carbon Sink | Core Goal | 15 LIFE ON LAND | Secondary Goal | 10 REDUCED INEQUALITIES | 14 LIFE BELOW WATER |

▶ **Results and Targets for Forest Carbon Sink**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Number of seedlings given out	42,416 plants	**42,000*** plants	23,000 plants	24,000 plants	35,000 plants
Area Afforested under Incentive-Driven Afforestation	79.006 hectares	77.568 hectares	84 hectares	88 hectares	96 hectares

*The 2024 implementation results met the 2030 target.

The city expands forest carbon sinks through three strategies. First, the "Incentive Afforestation Guidance Regulations" encourages afforestation on private and indigenous lands; as of 2024, 77.568 hectares have been approved, reducing an estimated 775.68 tons of CO_2e annually. Second, the "Ordinance for the Protection of Specially Commemorated Trees" protects 742 specific commemorative trees. Third, the city distributed 42,000 seedlings in 2024 for public-private greening.

Free Sapling Distribution for Arbor Day

▶ **Results and Targets for Soil Carbon Sink**

| **B** Soil Carbon Sink | Core Goal | 15 LIFE ON LAND | Secondary Goal | 10 REDUCED INEQUALITIES | 14 LIFE BELOW WATER |

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Area Subject to Organic and Friendly Cultivation	1,100 hectares	1,190 hectares	-	1,500 hectares	1,900 hectares

To enhance soil carbon sequestration, the city guides farmers to transition to organic and eco-friendly farming. By subsidizing equipment and organic materials, farmers are encouraged to avoid chemical fertilizers, thereby increasing soil organic matter. As of 2024, the organically certified area reached 1,190 hectares, estimated to increase carbon sequestration by 1,428 tons annually.

Greenhouse Facility

C Ocean Carbon Sink — Core Goal [13 CLIMATE ACTION] | Secondary Goal [14 LIFE BELOW WATER] [15 LIFE ON LAND]

The concept of blue carbon is gradually gaining international attention, but Taiwan has yet to establish methodologies for quantifying the carbon sink potential of seagrass beds and mangroves, and there are currently no actual contributions to carbon reduction.

D Wetland Carbon Sink — Core Goal [15 LIFE ON LAND] | Secondary Goal None
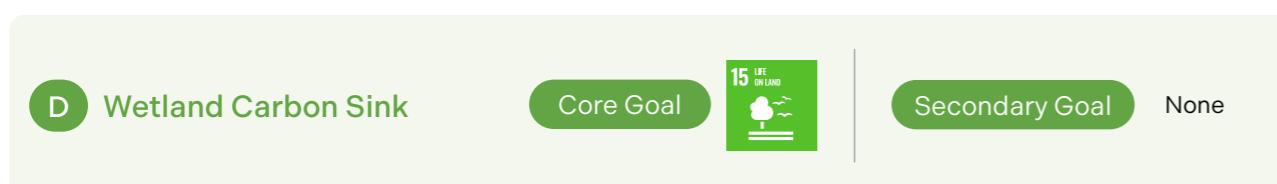
▶ **Results and Targets for Wetland Carbon Sink**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Wetland Carbon Sink	583.51 hectares	583.51 hectares	-		

To understand the carbon sequestration potential of wetlands, the city continues to inventory wetland status through ecological surveys and conduct environmental monitoring. The scientific data accumulated on water quality, biology, and education will serve as an important basis for future wetland conservation policy.

Wetland Carbon Sink

9 Just transition

A Occupation Functional Training

▶ **Results and Targets for Occupation Functional Training**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Occupation Functional Training	Planning related training	92 person-times of teacher training completed	-		

In response to the demand for green-collar talent arising from the global net-zero trend, the Kaohsiung City Government Training and Employment Center has fully integrated net-zero literacy into its vocational training programs. In 2024, 36 classes for unemployed individuals included net-zero courses, and specialized classes like the "HR Administration and ESG Sustainability Management Talent Training Program" were launched. To enhance the professional skills of frontline vocational trainers, the city also held 3 sessions of the "Net-Zero Introduction for Vocational Training Skills Promotion Course" in September, with 92 trainers and administrative staff from vocational training institutions participating, thereby strengthening the talent foundation for the city's green transformation.

Solar PV Course Included in Vocational Training

B Disadvantaged Groups

▶ **Results and Targets for Disadvantaged Groups Support**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Subsidize Sheltered Workshops	Develop cloth drink carriers	Mass-produce cloth drink carriers		-	
Employment Services for People with Disabilities	Served 689 individuals, placed 437 in employment	Served 773 individuals, placed 443 in employment		-	

To ensure disadvantaged groups, such as individuals with disabilities, stay on track during the net-zero transition, the city implements the "Supportive Employment Service Program for People with Disabilities" through 11 agencies. In 2024, 773 individuals were served, and 443 were successfully placed in employment, protecting their labor rights. Furthermore, to integrate net-zero concepts into the circular economy, the city encourages its 12 Sheltered Workshops to engage in net-zero carbon reduction. Among them, the WingAngels Sheltered Workshop began mass-producing reusable cloth drink carriers in January 2024, contributing to carbon reduction and net-zero goals.

WingAngels Sheltered Workshop Presents its Product: "Cloth Drink Carrier"

C Green Finance

▶ **Results and Targets for Green Finance**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Issue Green Bonds	Obtained 2B NTD issuance qualification	Successfully issued 2B NTD; obtained 13.5B NTD new limit		-	

Kaohsiung is the first local government in Taiwan to issue green bonds. The city obtained its first qualification in December 2023 and successfully issued 2 billion NTD in January 2024, securing another 13.5 billion NTD limit in June. This initiative, without increasing the city's debt, converts higher-interest bank loans for MRT construction into lower-interest green bonds, saving 30% on interest payments. This innovation won CommonWealth Magazine's "CommonWealth Magazine's City Governance Excellence Award economic growth Pioneer Award" in 2024.

CommonWealth Magazine's City Governance Excellence Award economic growth Pioneer Award 2024

D Net Zero Institute

▶ **Results and Targets for Net Zero Institute**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Net Zero Institute	17 courses, 610 talents cultivated	93 courses, 3,341 talents cultivated	-		

To meet the demand for green-collar talent, Kaohsiung established a physical "Net Zero Institute" on November 6, 2023. The institute's curriculum focuses on general knowledge, certification, and technical skills. In 2024, the institute held 50 certification classes, 37 general courses, and 6 technical courses, cultivating 1,246 ISO-certified talents, 1,926 Net-Zero Green-Collar Professionals, and 169 net-zero technical specialists, providing crucial talent support for Kaohsiung's industrial transformation.

Crafting a comprehensive curriculum to help students obtain professional certification.

E Promoting Civic Engagement in Governance

▶ **Results and Targets for Promoting Civic Engagement in Governance**

Plan	Previous Year's Results	Implementation Results	Targets		
	2023	2024	2026	2030	2050
Promoting Civic Engagement in Governance	39 projects implemented	33 projects implemented (3 net-zero related)	-		

The city encourages agencies to incorporate civic participation when implementing net-zero actions. In 2024, 33 civic participation projects were implemented, 3 of which were directly related to net-zero. For example, the Shanlin District Office's project included net-zero in its community needs assessment, and the Sanmin District Office's program produced a local net-zero action plan.

Sanmin District Office - Net-Zero Transformation Workshop

7

Sustainable Future

Built upon a solid foundation accumulated over nearly two decades, Kaohsiung City's sustainable development has progressed from single-point project promotion to comprehensive governance reform. For Kaohsiung, the Net-Zero transition is not just a governance challenge but a future blueprint for enhancing urban competitiveness and expanding international influence. The city will stand on its established, stable foundation, continually integrating cross-departmental efforts, strengthening governance mechanisms, and implementing tangible, feasible strategies to fully realize the ultimate vision of a sustainable city. Kaohsiung is not only the only city nationwide to submit a Voluntary Local Review (VLR) for five consecutive years but has also laid the legal groundwork with the "Kaohsiung City Self-government Ordinance on Net-Zero Urban Development" and clearly planned the policy goals for the nine major transition pathways through the "Kaohsiung City Net-Zero Policy White Paper."

Looking ahead, Kaohsiung City will deepen its sustainable governance efforts in a systematic manner. In terms of governance structure, it will reinforce the integrative effectiveness of the "Committee for Sustainable Development and Climate Change Response Promotion of Kaohsiung City Government." By operating through more detailed sub-groups, the city aims to integrate and coordinate resources for complex, cross-cutting issues, ensuring the city government team maximizes policy synergy toward diverse sustainability goals. In promoting environmental sustainability, the city plans to create

an "Integrated Sustainability Indicator Platform." This digital governance tool is designed to centrally gather the three major indicator systems — Greenhouse Gas Reduction, Climate Change Adaptation, and Sustainable Development — which were previously scattered across various departments, into a single portal. This platform will not only enhance the efficiency and accuracy of data compilation but also enable cross-departmental information transparency and sharing, thereby promoting effective resource integration and basing the city's sustainability decisions on comprehensive data.

The submission of this Voluntary Local Review (VLR) symbolizes a continuous improvement cycle of governance. It serves both as a tool to showcase achievements to all stakeholders and as an action starting point to guide Kaohsiung into the future. The results revealed in the report are the proof of past efforts, while the challenges identified within it will be the focus of future administration. Kaohsiung City will continue to use "sustainable co-creation" as its core methodology, pragmatically integrating the resources and wisdom of the public and private sectors, and strictly managing and evaluating the implementation effectiveness of "Net-Zero Kaohsiung" using governance tools such as the Carbon Budget, sustainability indicators, and the Net-Zero Policy White Paper. The core spirit of Kaohsiung City's sustainable development is to simultaneously promote industrial upgrading and economic development while prioritizing environmental resilience and social inclusion, thereby forging a practical and forward-looking path of sustainable transition unique to an industrial city, and creating a trustworthy future for all citizens.

Appendix Sustainable Indicators of Kaohsiung City

SDG 1: End poverty in all its forms everywhere

*The 2024 implementation results met the 2030 target
Corresponds to Taiwan Sustainable Development Indicators

Indicator

Opening rate of children and Youth Future Education and Development Accounts (%)

51.4	53.7	54.76	55.3	56.5	Observational indicator
2020	2021	2022	2023	2024	2030

- Number of applicants opening accounts / Number of eligible individuals

Continuing deposit rate of Children and Youth Future Education and Development Accounts (%)

80	84.8	85.55	89.3	90.6	Observational indicator
2020	2021	2022	2023	2024	2030

- (Number of Children and Youth Future Education and Development Accounts deposited this year) ÷ (Number of Children and Youth Future Education and Development Accounts opened this year

Mobile healthcare coverage (%)#

85.7	100	100	100	100*	90
2020	2021	2022	2023	2024	2030

- (Mobile healthcare area) ÷ (areas with insufficient healthcare resources announced by the Ministry of Health and Welfare)

Number of culture and health stations within sensitive indigenous communities (offices)

27	27	29	32	37*	37
2020	2021	2022	2023	2024	2030

- Indigenous areas:
  (1) Tribal villages within the jurisdiction of indigenous areas (towns, cities, districts) that have not yet established culture and health stations.
  (2) Tribal villages where the number of populations over 55 years old reaches 150 or more without a culture and health station.
- City area: Area with a high proportion of indigenous population or gathering area without a culture and health station.

Number of disadvantaged households under the Housing Act renting social housing or receiving rental subsidies (%)

Social Housing

63	58	53	51	47*	40
2020	2021	2022	2023	2024	2030

Indicator

Rent Subsidy

2020	2021	2022	2023	2024	2030
56	53	Increased rent subsidy 33 The Central Government's Expanded NT$30 Billion Rent Subsidy Program 48	Increased rent subsidy 11 The Central Government's Expanded NT$30 Billion Rent Subsidy Program 50	Increased rent subsidy 10 The Central Government's Expanded NT$30 Billion Rent Subsidy Program 29	50

- Number of disadvantaged households under the Housing Act renting social housing or receiving rental subsidies

Public property loss caused by fire per year (unit: TWD $1M)

2020	2021	2022	2023	2024	2030
7.5	20.5	15	7.4	67.8	Observational indicator

- Fire Department Statistical Report

Rate of applicable workers being supported to work in low-income households or low-middle-income-households (%)

2020	2021	2022	2023	2024	2030
61.1	66.7	62.92	67.6	69.9*	64

- (Number of successfully employed individuals in low-income, low-middle-income households) ÷ (number of registered employment-seeking individuals in low-income, low-middle-income households) this year.

SDG 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture

Indicator   *The 2024 implementation results met the 2030 target.

Production and sales history verification area(hectares)

2020	2021	2022	2023	2024	2030
1,948	2,427	2,891.9	3,380.0	4,210*	2,950

- Accumulated verified area over the years (hectares).

In-kind contribution service stations (offices)

2020	2021	2022	2023	2024	2030
62	72	74	84	84	87
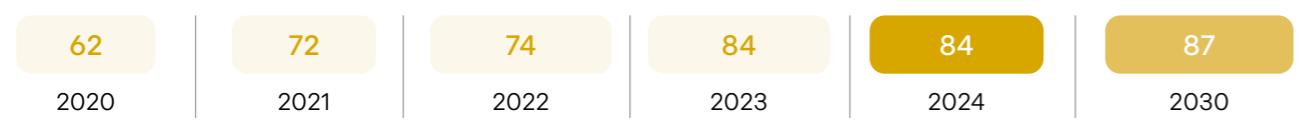
- In-kind contribution service stations

Indicator

Food manufacturing industry inspections rate (%)

2020	2021	2022	2023	2024	2030
11	30	42.9	47.8	45	100

- (Number of inspected food manufacturing companies) ÷ (Total number of companies)×100%

Proportion of organic crops area (%)

2020	2021	2022	2023	2024	2030
1.8	2.0	2.2	2.3	2.5	Observational indicator

- (Organic crops area) ÷ (Total cultivation area)×100%

Agricultural expenditure in the composition of government's annual budget (%)

2020	2021	2022	2023	2024	2030
0.5	0.4	0.4	0.4	0.7*	0.5

- (Agricultural expenditure) ÷ (City government's annual budget)

Public funds in the agricultural sector (unit: TWD 100 million)

2020	2021	2022	2023	2024	2030
6.7	6.2	6.6	7.5	11.3*	6.67

- Official funds for the agriculture sector under projected plans by the National Bureau of Statistics

Approvals of agricultural rezoning cases in rural communities (piece)

2020	2021	2022	2023	2024	2030
58	61	63	66	66*	65

- A community can become a rural regeneration plan community after submitting its rural regeneration plan and upon review and approval.

SDG 3: Ensure healthy lives and promote well-being for all at all ages

Indicator

Friendly reproductive environment

Number of childcare resource stations (offices)

2020	2021	2022	2023	2024	2030
116	127	158	165	194	209

Indicator

Childcare allowance claims (10,000 people)

44.0	45.7	46.0	44.2	50.1*	43.0
2020	2021	2022	2023	2024	2030

Number of childcare workers (people)

3,088	3,146	3,229	4,097	4,440*	4,200
2020	2021	2022	2023	2024	2030

Number of parent-child center visitors served (10,000 people)

54.1	59.8	50.4	47.4	41.5	53.3
2020	2021	2022	2023	2024	2030

- Number of childcare resource points = Total number of public kindergartens + home childcare + private kindergartens + parenting resource stations (including parent-child centers) + parenting resource buses + location-xed and pay-by-time daycare stations.
- Number of childcare workers = home childcare workers + licensed daycare center staff.

Social welfare coverage (%)

25	28	31	32.4	33.2	39
2020	2021	2022	2023	2024	2030

- (Number of social welfare facilities) ÷ (Number of administrative regions)

Homeless care project (person)

7,192	5,967	6,039	5,500	6,822*	6,000
2020	2021	2022	2023	2024	2030

- Number of people served

Screening coverage of three cancers (cervical, breast, and colorectal) (%)

Cervical Cancer

53	51.8	49.9	49.3	50.3	54
2020	2021	2022	2023	2024	2030

Breast Cancer

37.4	32.4	33.7	37.0	37.3	38.5
2020	2021	2022	2023	2024	2030

Indicator

*The 2024 implementation results met the 2030 target

Colorectal Cancer

37.8	33	32.6	33.2	31.7	39.5
2020	2021	2022	2023	2024	2030

- Cervical cancer screening rate =(Number of people taking pap smear in 3 years) ÷ (Middle-aged population).
- Breast cancer screening rate = (Mammography screenings in 2 years) ÷ (Middle-aged population).
- Colorectal cancer screening rate = (Fecal blood screening in 2 years) ÷ (Middle-aged population).

Traffic safety indicators (person)

350	333	370	319	310	258
2020	2021	2022	2023	2024	2030

- Number of deaths within 30 days of traffic accidents.

Ratio of citizens using public-funded health check resources (%)

40-64 years old

31.6	32.2	31.2	31.5	32.4*	31.6
2020	2021	2022	2023	2024	2030

65 years old or above

30.9	29.3	27.1	29.0	30.6	31
2020	2021	2022	2023	2024	2030

- (Total number of people aged between 40–64 screened in the past 3 years) ÷ (Number of people aged between 40–64 screened in January of the year).
- (Total number of people aged between 65 or above screened in the past 3 years) ÷ (Number of people aged between 65 above screened in January of the year).

Utilization of long-term care services (%)

55.9	57.5	68.9	83.2	88.5*	80
2020	2021	2022	2023	2024	2030

- (Number of annual service users) ÷ (Estimated number of disabled persons).

Number of Disaster Prevention Education Sessions (sessions)

7,202	7,534	8,993	17,496	12,121*	6,000
2020	2021	2022	2023	2024	2030

- Disaster Prevention Education Sessions/Events Held

Indicator

*The 2024 implementation results met the 2030 target

Numbers of Toxic Chemical Incident Drills and Guidance for Hazardous Chemicals Operation Sessions (sessions)

2020	2021	2022	2023	2024	2030
51	75	75	64	67	75

- Total of large-scale toxic chemical incident drills, on-site guidance for hazardous chemicals, and unannounced tests.

Dengue Mosquito Breteau Index Level 3 or Above (%)

2020	2021	2022	2023	2024	2030
1.8	4.0	1.5	8.4	3.6*	<12

- (Number of positive containers ÷ number of surveyed households) × 100%, then converted to levels according to the "Dengue Mosquito Larva Index and Level Table."

Coverage Rate of Drug Abuse Treatment Service (%)

2020	2021	2022	2023	2024	2030
68.2	68.2	68.2	68.2	66.7*	65.0

- Number of City-Designated Drug Addiction Treatment Facilities / Number of Psychiatric Hospitals in the City.

Number of Community Residents Reached in the Drug Abuse Prevention Awareness Activities (10,000 people)

2020	2021	2022	2023	2024	2030
8.4	10.7	11.8	16.8	21*	3.0

- Number of Participants in Physical Drug Abuse Prevention Education.

Number of Persons Engaged in the Promotion of All-Age Sports to Encourage Public Participation in Recreational Sports (10,000 people)

2020	2021	2022	2023	2024	2030
4.1	6.1	6.2	11.0	44.3*	7.0

- Number of Persons Taking Regular Exercise

Promotion of Sports Economy and Industry Development (Billion NT$)

2020	2021	2022	2023	2024	2030
0.0	0.0	1.2	1.3	3.5*	1.4

- Economic Benefits generated by Sports Events.

SDG 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Indicator

*The 2024 implementation results met the 2030 target
Corresponds to Taiwan Sustainable Development Indicators

Supply of public, quasi-public education, and childcare services (%)

2020	2021	2022	2023	2024	2030
63.1	89.6	97	100	100*	90

- (Public + quasi-public approved enrollments) ÷ (Children aged 2–5 and enrolled in the kindergarten based in school year of 2018, which is 60,799).

Disadvantaged groups (including special education students, indigenous, and new residents) eligible for learning care and guidance (ten thousand people)

2020	2021	2022	2023	2024	2030
-	-	4.7	4.8	6.9	Observational indicator

- Number of Participants in Counseling Sessions or Activities for Disadvantaged Families and Children to New Immigrants.

Personal counseling and placement for students with disabilities (%)

2020	2021	2022	2023	2024	2030
97.4	96.1	98.2	98.2	99.1*	99

- Placements ÷ Applicants

Pre-employment training and support for the unemployed among disadvantaged groups (Person)

2020	2021	2022	2023	2024	2030
1,185	1,263	1,652	1,450	1,455*	1,199

- Participants from disadvantaged groups in the given year.

Teachers learning global professional knowledge

Attended Sessions (Sessions)

2020	2021	2022	2023	2024	2030
64	76	70	82	102*	85

Participants (Person)

2020	2021	2022	2023	2024	2030
2,339	2,124	2,005	1,855	3,215*	2,000

- Workshops and Participation Numbers for Topics in Gender Equality, Human Rights, Ethics, Environment, etc.

Lifelong learning (unit: 10,000 people)

Civil Servants

2020	2021	2022	2023	2024	2030
12.3	24.3	24.5	14.0	15.1*	10

Promotional Activities

2020	2021	2022	2023	2024	2030
217.7	200	369.8	325.5	385.1*	225

Student Participation

2020	2021	2022	2023	2024	2030
0.9	0.9	0.9	0.9	1*	0.95

Lifelong Learning for Women

2020	2021	2022	2023	2024	2030
3.4	2.8	3.2	3.5	5.5*	4.0

Elderly Learning

2020	2021	2022	2023	2024	2030
25.6	24.9	29.8	41.4	27.7	28.8

Education for Women

2020	2021	2022	2023	2024	2030
0.26	0.21	0.19	0.29	0.25*	0.23

- Civil servants = Civil servants of life-long learning in Kaohsiung City.
- Promotional activities = People reached by promotion activities.
- Student participation = Students participating in lifelong learning courses.
- Lifelong Learning for Women = Attendants of Senior Citizens Academy's education course + Participants in special lectures at community's women colleges.
- Elderly Learning = Students at community's college and senior citizens learning center.
- Education for Women = Statistics of Adult Women's Education Promotion Participation.

Volunteers of environmental protection (unit: 10,000 people)

2020	2021	2022	2023	2024	2030
2.8	2.9	2.7	2.7	2.5	2.68

- Volunteers of environmental protection.

Usage Rate of Learning Carriers (%)

2020	2021	2022	2023	2024	2030
-	-	-	70	83	100

- Improvement Program-Usage Rate of Learning Carriers

Number of Environmental Education Facilities (places)

2020	2021	2022	2023	2024	2030
18	18	18	19	23*	22

- Number of the City's Environmental Education Facilities Certified by the "Regulations governing Certification and Management of Environmental Education Facilities".

Promotions of Local Ingredients and Food and Agriculture Education (Hours)

Food and Agriculture Education

2020	2021	2022	2023	2024	2030
15	18	16	15	23*	10

Local Ingredients

2020	2021	2022	2023	2024	2030
32	16	16	22	38	50

- Food and Agriculture Education=Number of Hours for the Food and Agriculture Education Promotions.
- Local Ingredients Education=Number of Hours for theLocal Ingredients Promotions.

Education and Training for Volunteer Service (10,000 people)

2020	2021	2022	2023	2024	2030
2.6	7.6	7.6	7.9	7.7	7.8

- Number of Persons Engaged in the 「Education and Training for Volunteer Service」, and Number of Participants in Volunteer-Related Education and Training.

Environmental Education (%)

2020	2021	2022	2023	2024	2030
82	100	100	100	100*	100

- Number of units required to report environmental education / Total number of government agencies and school in Kaohsiung City.

Water Resource Education and Awareness (Schools)

2020	2021	2022	2023	2024	2030
Observational indicator	Observational indicator	11	12	22*	12

- Schools in the City apply for water resource education and awareness events funded by central and local governments or institutions, compiling 「Disaster Prevention Education Toolkits Borrowing」 and 「Cool School for Soil and Water Conservation」 programs under the Agency of Rural Development and Soil and Water Conservation, MoA; Number of Schools Applying for the "Inclusion of Wastewater Sewer Education in Elementary Environmental Education" of the Water Resources Bureau, Kaohsiung City.

SDG 5: Achieve gender equality and empower all women and girls

The sex ratio at birth (%)

2020	2021	2022	2023	2024	2030
107.1	107	108.1	109.4	107.3	Observational indicator

- (Born male) ÷ (Born female)

Implementation of Domestic Violence Counterparties Counseling Services

Applicants

2020	2021	2022	2023	2024	2030
166	140	162	103	172*	150

People

2020	2021	2022	2023	2024	2030
5,804	5,709	7,326	4,248	13,485*	6,200

- Annual number of service recipients and persons.

Domestic violence and sexual assault prevention activities of the year (unit: 10,000 people)

2020	2021	2022	2023	2024	2030
1	0.68	1.3	1.3	4.9*	3.2

- Annual number of persons reached by events.

Same-sex marriages (couples)

2020	2021	2022	2023	2024	2030
306	249	328	413	416	Observational indicator

- Calculation of same-sex marriages.

Proportion of deputy chiefs, chiefs of sta and first-level female supervisors in Kaohsiung City Government (%) #

2020	2021	2022	2023	2024	2030
28	29	29	30	28	30

- (Women among the current deputy chiefs, chiefs of staff, first-level unit supervisors, and the chiefs, deputy chiefs, and chiefs of staff of the municipal government) + (Total number of the current deputy chiefs, chiefs of staff, first-level unit supervisors, and the chiefs, deputy chiefs, and chiefs of staff the municipal government)

Proportion of female non-supervisors in the municipal government and its first-level agencies (%)

2020	2021	2022	2023	2024	2030
28	42	45	40	35*	30

- (Female non-supervisors in the municipal government and its first-level agencies) ÷ (Total number of non-supervisors in the municipal government and its first-level agencies).

Gender ratio of chairpersons of non-governmental organizations (%)

Male

2020	2021	2022	2023	2024	2030
71.7	71.1	71.4	71.1	70.8	Observational indicator

Female

2020	2021	2022	2023	2024	2030
28.3	28.9	28.6	28.9	29.2	Observational indicator

- (Calculation of male/female chairpersons of non-governmental organizations in Kaohsiung City at the end of the year) ÷ (Total number of chairpersons of non-governmental organizations).

SDG 6: Ensure availability and sustainable management of water and sanitation for all

Daily water consumption per person (Liter)

2020	2021	2022	2023	2024	2030
281	272	280	279	281	Observational indicator

- (Tap water for domestic consumption ÷ water supply population) ÷ 365 days

Premium public toilets in Kaohsiung City (%) #

2020	2021	2022	2023	2024	2030
79.2	79.8	92	92.3	93.3*	85

- (Premium public toilets) ÷ (Registered public toilets)

Households connecting to public sewer system and sewer (%) #

2020	2021	2022	2023	2024	2030
46	47.4	49	50.2	50.9	57.0

- (Connected households × Number of households per county/city) ÷ total population per county and city.

Indicator

*The 2024 implementation results met the 2030 target

Recycle of used water (Mts / Days)

2020	2021	2022	2023	2024	2030
5.4	5.9	9.9	8.9	9.2	21

- Summation of the amount of recycled water discharged from the public sewage treatment plant and the total amount of recycled water produced by the Water Resources Center

Mildly and slightly/not polluted length of the main rivers (%)

2020	2021	2022	2023	2024	2030
34.9	30.3	25.2	34.5	30.1	≧ 50

- (Mildly polluted length + not/slightly polluted length) ÷ (Total polluted length).

Stations' examining result with DO≥2.0 mg/L in each water basin within the jurisdiction

2020	2021	2022	2023	2024	2030
≧ 95	97.3	96.9	94.6	94.2	100

- (Stations with results of DO≥2.0mg/L) ÷ (Effective stations)

Leakage density of tap water and length of pipeline replacement (km/year)

km

2020	2021	2022	2023	2024	2030
44.6	52.6	42.9	57.5	56.67	Observational indicator

case

2020	2021	2022	2023	2024	2030
4,738	5,082	4,425	4,529	4,895	Observational indicator
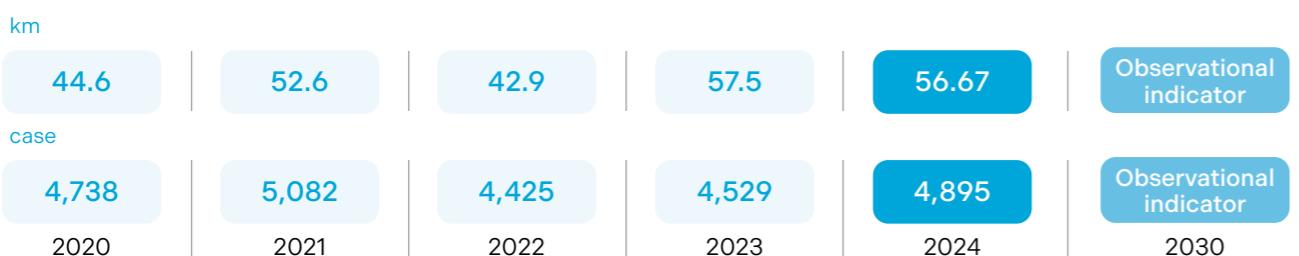
- Leak Repair Density (cases/km).
- Pipeline Replacement Length (meters/year).

Tap water penetration rate (%)

2020	2021	2022	2023	2024	2030
96.6	96.6	96.8	96.9	97	Observational indicator
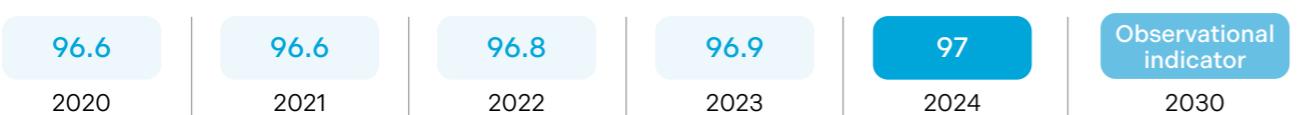
- (People with water supply) ÷ (Number of people in Kaohsiung City)

Green building rainwater storage and rainwater recovery (cubic meters)

2020	2021	2022	2023	2024	2030
3,500	3,700	3,809	3,956	4,056	4,500

- Designed capacity of rainwater storage and rainwater recycling facilities for green buildings.

Indicator

*The 2024 implementation results met the 2030 target
Corresponds to Taiwan Sustainable Development Indicators

Kaohsiung city's soil and groundwater pollution public sites(numbers) released from listing

2020	2021	2022	2023	2024	2030
9	16	9	5	5	Observational indicator

- Numbers of Kaohsiung city's soil and groundwater pollution public sites released from listing.

Subsidence area or amount of stratum in Kaohsiung City (square meter)

2020	2021	2022	2023	2024	2030
0	No monitoring results	No monitoring results	No monitoring results	Area of land subsidence: 0.7 square kilometers	Observational indicator
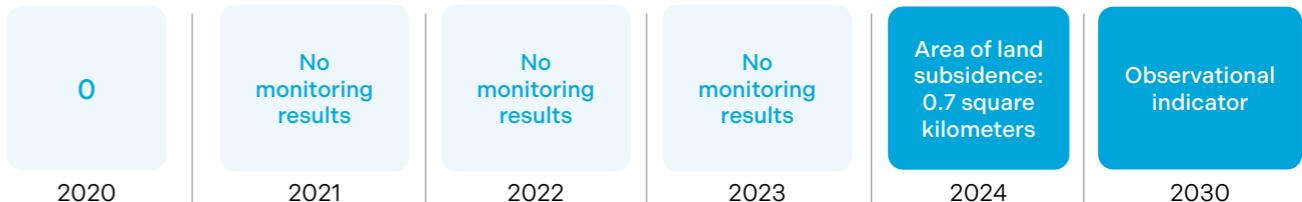
- Based on monitoring results from the MoEA's Water Resources Agency (Area with the annual subsidence rate greater than 3 cm).

Water Environment Patrol Teams (teams)

2020	2021	2022	2023	2024	2030
30	31	32	32	33*	30

- Number of Water Environment Patrol Teams in Kaohsiung City.

River volunteers with the volunteer service records (%)

2020	2021	2022	2023	2024	2030
74.8	77.1	78	93.1	91.3	94

- (Number of river volunteers with volunteer records) ÷ (River volunteers)×100%

SDG 7: Ensure access to affordable, reliable, sustainable and modern energy for all

Indicator

* Corresponds to Taiwan Sustainable Development Indicators

Energy consumption per capita (kWh/people)

2020	2021	2022	2023	2024	2030
2,118	2,163	2,189	2,177	2,284	Observational indicator

- (Annual sales of electric lightings announced by Taipower) ÷ (Population in Kaohsiung).

Solar photovoltaic facilities promoted (GW)

2020	2021	2022	2023	2024	2030
0.12	0.42	0.8	0.9	1.3	2.5

- Cumulative capacity of solar photovoltaic facilities installed on buildings.

SDG 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Indicator   *The 2024 implementation results met the 2030 target

Entrepreneurship training courses held (sessions)

29	32	30	34	39*	38
2020	2021	2022	2023	2024	2030

- Sessions of entrepreneurship training courses.

Service of support and advice (people)

249	275	250	301	305	315
2020	2021	2022	2023	2024	2030

- Number of applicants of support-and-advice service.

SDG 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Indicator

Promoting of park development and transforming into high-end manufacturing center (unit:100 million TWD)

400	815.7	1,394.7	2,084.7	2716.7*	2,442.0
2020	2021	2022	2023	2024	2030

- Annual Accumulation of Amounts from Facilitation of Expanded Investments by Enterprises at the Park.

Number of Newly Established Digital Economy Enterprises (Number of Entities)
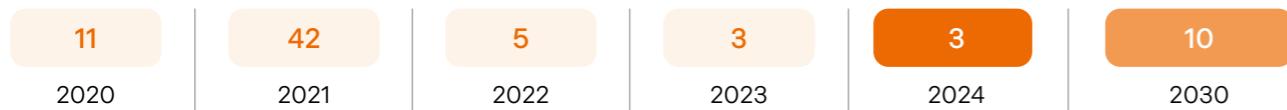
11	42	5	3	3	10
2020	2021	2022	2023	2024	2030

- Number of Newly Established Digital Economy Enterprises.

Number of Entities Receiving Startup Green Economy Model (Number of Entities)

-	-	-	82	80*	80
2020	2021	2022	2023	2024	2030
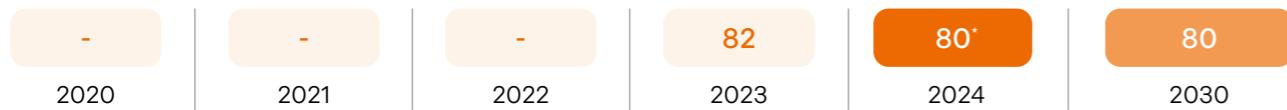
- Number of Startups Receiving Guidance

Indicator   *The 2024 implementation results met the 2030 target

Artificial Beach Construction to Prevent Coastal Erosion.

"Cijin Tiansheng Temple Coast Protection Emergency Project"	-	-	"Cijin Coastal Protection Strategy and Environmental Improvement Plan"	"Cijin Coastal Protection Strategy and Environmental Improvement Plan"	Implementation of sand source compensation work in secondary coastal protection areas and coastal protection projects
2020	2021	2022	2023	2024	2030
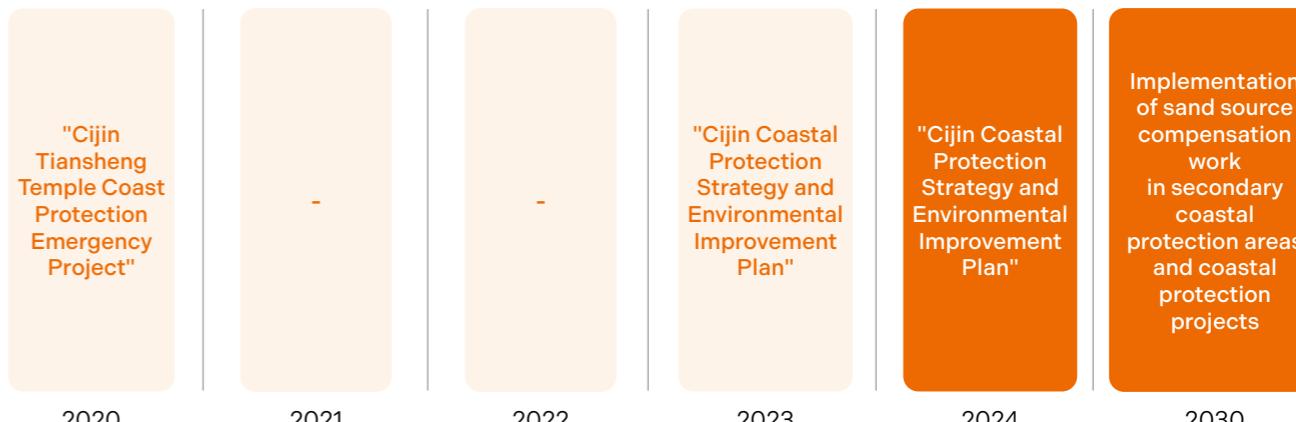
- Promotion of Secondary Coastal Protection Plan

Inspection Status of Self-Check over Pipelines by Existing Industrial Pipeline Operators (Number of Operators)

16	14	14	14	14*	14
2020	2021	2022	2023	2024	2030

- Inspection Status of Self-Check over Pipelines by Existing Industrial Pipeline Operators.

SDG 10: Reduce inequality within and among countries

*The 2024 implementation results met the 2030 target
Corresponds to Taiwan Sustainable Development Indicators

Indicator

Multiples of household income quintiles gap

6.56	6.46	6.06	6.24	no data yet	Observational indicator
2020	2021	2022	2023	2024	2030

- (Average highest quintiles) ÷ (Average lowest quintiles)

Promoting employment for people with physical and mental disabilities (people)

3,151	2,433	3,287	3,267	3,937*	3,160
2020	2021	2022	2023	2024	2030

- Number of people with promoted employment.

Employment-by-referral rate of disadvantaged job seekers (%)

54	58.2	57.6	57.6	63.2*	58
2020	2021	2022	2023	2024	2030

- (Number of job seekers with special needs) ÷ (Number of newly registered job seekers with special needs).

*The 2024 implementation results met the 2030 target

Referral of Middle-aged and Elderly Persons for Employment (10,000 people)

1.2	1.4	1.5	1.6	1.8*	1.3
2020	2021	2022	2023	2024	2030

- Number of job seekers (middle-aged and elderly) successfully referred or employed by public employment services.

Gini coefficient of income per household.

0.36	0.35	0.34	0.35	no data yet	Observational indicator
2020	2021	2022	2023	2024	2030

- Area contained between the Lorenz curve and the perfect equal line to the area of the entire triangle below the perfect equal line.

SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable

*The 2024 implementation results met the 2030 target
Corresponds to Taiwan Sustainable Development Indicators

Indicator

Disadvantaged households (household)

16,282	18,975	38,516	54,532	95,639	Observational indicator
2020	2021	2022	2023	2024	2030

- Summation of households signing the social housing contract and households receiving rent subsidies.

Urban renewal (cases)

1	2	2	3	1	2
2020	2021	2022	2023	2024	2030

- Number of approved urban renewal cases.

Public bike promoted (unit: 10,000 people)

669.8	917.3	1,143.5	1,548.9	1,702*	1,300
2020	2021	2022	2023	2024	2030
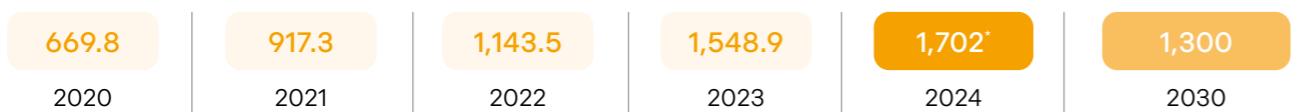
- Number of people riding public bicycles.

Bike lanes (km)

1,035.3	1,047.9	1,047.9	1,070.4	1,081.5	1,100
2020	2021	2022	2023	2024	2030

- Bike lanes length.

Indicator *The 2024 implementation results met the 2030 target

Extended length of the MRT (km)

42.7	42.7	42.7	42.7	44.2	90.3
2020	2021	2022	2023	2024	2030

- Extended rail length of the MRT.

Extended length of the LRT(km)

8.7	12.8	14.9	22.1	22.1*	22.1
2020	2021	2022	2023	2024	2030

- Extended rail length of the LRT.

Number of happy buses for the elderly (unit: trips).

122	50	78	126	88	90
2020	2021	2022	2023	2024	2030

- Number of trips for the happy bus for the elderly.

Developed land size of urban planning public facilities areas (unit: 10,000 hectares)

1.2	1.2	1.2	1.2	1.5	Observational indicator
2020	2021	2022	2023	2024	2030

- Statistics of developed of urban planning public facilities areas.

The suburban area planning in Kaohsiung city's spatial planning (cases)

1	1	2	2	3*	1
2020	2021	2022	2023	2024	2030
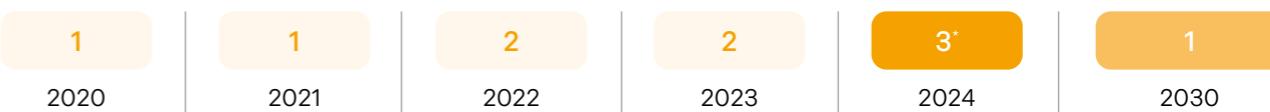
- The suburban area planning in Kaohsiung city's spatial planning.

National land plan and non-urban land development permission (cases)

2	3	3	5	4*	2
2020	2021	2022	2023	2024	2030

- Permitted cases of National Spatial Planning and non-urban land development.

Completion rate of barrier-free facilities in public buildings (%)

90.9	91	92	90.5	31	31.6
2020	2021	2022	2023	2024	2030

- (Barrier-free public facilities) ÷ (All public facilities)

Indicator

Pavement environment and access area around schools (unit: 10,000 square meters)

12.3	14	15.5	16.9	17.7	24.2
2020	2021	2022	2023	2024	2030

- Walkable area of pavement

Continuous selection of public/private facilities in each jurisdiction suitable for emergency shelter for during disasters (%)

10	10	10.2	10.1	10.2*	> 10
2020	2021	2022	2023	2024	2030

- (Evacuation capacity) ÷ (Number of citizens)

Length of pavements with motorcycles' parking space removed (km)

4.5	11.5	13.5	19.3	25.8*	22.5
2020	2021	2022	2023	2024	2030

- Total length of the motorbike parking spots removed on the pavement.

The number of people died, missing, injured during natural disasters (only includes earthquakes, typhoons, and floods) (person)

0	0	0	0	6	Observational indicator
2020	2021	2022	2023	2024	2030

- Fire Department Official Statistics Report.

Annual average concentration of ne suspended particles (μg/m³) #

18.4	18.5	16.9	16.8	15.6	13
2020	2021	2022	2023	2024	2030

- Σ(Annual average sum of fine suspended particles found through manual monitoring stations) ÷ (Number of fine suspended particles manual monitoring stations)

Ozone for eight hours(ppb)

75.3	71.3	69.2	69.9	68.7	Observational indicator
2020	2021	2022	2023	2024	2030

- Average of annual ozone's concentration for 8 hours in 12 air quality automatic monitoring stations in Kaohsiung City.

AQI value #

82.8	80.7	87.5	88.9	90.3	90
2020	2021	2022	2023	2024	2030

- Improving the air quality by increasing AQI to≤100.

Indicator

Available air quality automatic monitoring data (%)

98.8	96.8	98.6	99	98.9*	> 94
2020	2021	2022	2023	2024	2030

- (Hourly data included in the scheduled number of effective data) ÷ (Month included in the total scheduled number of transactions) × 100%.

Environmental noise monitoring (%)

100	100	100	100	97.6*	96
2020	2021	2022	2023	2024	2030

- 1-(Number of periods of anomalous environmental noise monitoring) ÷ (Total number of periods of monitoring).

Green Space Area Available to Urban Residents (Square Meters) #

10.3	10.4	10.5	10.5	10.5	12.3
2020	2021	2022	2023	2024	2030

- Average park and green area per capita.

Number of Permanent Soil and Water Conservation Facilities under the Soil and Water Conservation Plans Inspected (Number of Cases)

36	51	66	81	96	170
2020	2021	2022	2023	2024	2030
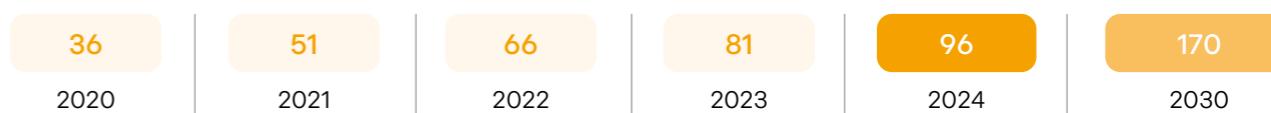
- Post-Completion Survey for Permanent Soil and Water Conservation Facilities under Legally Applied Soil and Water Conservation Projects of the City.

Cumulative Number of Green Building Candidate Certificates Issued (cases)

881	891	918	935	965	980
2020	2021	2022	2023	2024	2030

- Cumulative number of buildings that have obtained green building candidate certificates.

Sustainable Land Use Planning

Cases Implemented (Number of Cases)

29	21	36	37	20	Observational indicator
2020	2021	2022	2023	2024	2030

Cases on Public Display (Number of Cases)

19	34	40	39	19	Observational indicator
2020	2021	2022	2023	2024	2030

Indicator

*The 2024 implementation results met the 2030 target

Total Area Changed in All Cases (hectares)

2020	2021	2022	2023	2024	2030
36.8	363.3	86.9	230.2	26.1	Observational indicator

- Number of cases of urban plan reviews and individual land use changes.

Inventory over the Utilization of Idle Public Spaces in the City (cases)

2020	2021	2022	2023	2024	2030
494	441	471	408	452	Observational indicator

- Number of Rental and Activation Cases of Idle Public Land and Buildings Managed by City Authorities.

Electric Bus Ratio (%)

2020	2021	2022	2023	2024	2030
13.6	21.8	21.8	32	35.8	100

- Proportion of Electric Buses to Total Buses in the City.

Volume of public transportation system (hundred million people)

Volume (hundred million people)

2020	2021	2022	2023	2024	2030
-	31.9	96.9	125.6	140.3	An increase of 2% from the actual volume in 2025

Year-on-year growth rate (%)

2020	2021	2022	2023	2024	2030
-20.4	-	-	27.5	11	An increase of 2% from the actual volume in 2025

- The calculation includes buses, MRT, taxis, water buses, public bicycles, shared vehicles, light rail, and total system usage.

Number of Residence Subsidies Granted (10,000 households)

2020	2021	2022	2023	2024	2030
1.6	1.6	3.6	4.9	9.5	Based on the number announced for the current year

- Households meeting the eligibility criteria are included based on assessment scores.

Clean Homeland Index (Hectares)

2020	2021	2022	2023	2024	2030
2.0	1.9	1.7	1.7	1.8*	1.7

- Area of Greening and Construction Thereof in Communities.

SDG 12: Ensure sustainable consumption and production patterns

*The 2024 implementation results met the 2030 target
Corresponds to Taiwan Sustainable Development Indicators

Indicator

Increase of the issued green factory certificates (factories)

2020	2021	2022	2023	2024	2030
18	19	19	19	13	Observational indicator

- Number of green factory acquired certificates.

Reuse of industrial food waste (%)

2020	2021	2022	2023	2024	2030
94.4	91.7	94	96.6	92.7	95.5

- (Amount of reused industrial food waste) ÷ (Amount of total industrial food waste)

Reuse of industrial waste (%)

2020	2021	2022	2023	2024	2030
90.6	91.8	91.1	87.3	87.8	92

- (Amount of reused industrial waste) ÷ (Amount of total industrial waste)

Tracing cases of the flow of toxic chemicals (%)

2020	2021	2022	2023	2024	2030
82.9	100	98.8	100	100*	88

- (Inspections of the regulated factories with toxic chemicals) ÷ (Numbers of the regulated factories with toxic chemicals).

Selling rate of particles recycled from incinerated bottom slags (%)

2020	2021	2022	2023	2024	2030
80.2	90.4	96.5	100.6	98.9*	85

- (Selling number of particles recycled from incinerated bottom slags) ÷ (Total amount of particles recycled from incinerated bottom slags).

Recycle rate of agricultural waste (%)

2020	2021	2022	2023	2024	2030
84.7	84.7	97.7	91.8	92.3*	85.7

- (Amount of recycled agricultural waste in registered companies) ÷ (Total amount of agricultural waste in registered companies).

Recycled food waste (%)

2020	2021	2022	2023	2024	2030
2.4	2.2	3	3.6	4.2	5.5

- (Amount of recycled food waste) ÷ (Waste volume, in despite of the business employees' household waste).

Indicator

*The 2024 implementation results met the 2030 target
Corresponds to Taiwan Sustainable Development Indicators

Livestock wastewater turned into resource (%)

2020	2021	2022	2023	2024	2030
-	2.5	3.3	3.9	4.6	≧ 10

- The percentage of resource utilization of livestock ranches.

Recycled waste (%)

2020	2021	2022	2023	2024	2030
61.5	64.8	61.6	61.6	63.2*	62

- (Amount of recycled food waste, recycled waste and recycled huge waste) ÷ (Waste volume, in despite of the business employees' household waste).

Number of TWSE/TPEx Listed Companies Filing Sustainability Reports (Number of Entities)

2020	2021	2022	2023	2024	2030
521	586	686	859	87	136

- Number of Kaohsiung-Based TWSE/TPEx listed Companies Submitting Sustainability Reports for the Previous Year at TWSE's MOPS.

Green procurement by public organizations (%)

2020	2021	2022	2023	2024	2030
99.7	99.2	99.7	99.6	99.7*	99

- The annual purchases of environment-friendly products that meet the first category (with environmental protection labels), the second and third categories of "low pollution, resource conservation, and recyclability" in total, which should reach a set target ratio of the agency's total purchase budget for the year.

Green procurement by private enterprises and organizations (unit: 100 million TWD)

2020	2021	2022	2023	2024	2030
28.4	45.1	61.9	57.4	59.3	82

- The annual purchases with Taiwan's environmental protection labels, second-grade environmental protection labels, energy conservation labels, water conservation labels, green building material labels, carbon footprint labels, carbon reduction labels and foreign green products in total.

Occupancies of tourist hotels (%)

2020	2021	2022	2023	2024	2030
41.4	45.7	44.8	55.0	55.6*	50

- (Number of guest rooms occupied) ÷ (Number of guest rooms)

Low-carbon sightseeing (trips)

2020	2021	2022	2023	2024	2030
3	3	3	4	4*	4

- Trips of low-carbon sightseeing

Indicator

Proper Disposal of Port Waste (tons)

2020	2021	2022	2023	2024	2030
1,703	1,838	1,878	1,506	1148.3	1,200

- Annual Average Recovery Tonnage and Total Resource Recovery Tonnage.

Issuance Amount of Green Bonds (Hundred Million NT$)

2020	2021	2022	2023	2024	2030
-	-	-	20	135	Observational indicator

- Total Amount of Green Bonds Issued by the City Government

Statistics of Green Loans and Investments by the Bank of Kaohsiung (Hundred Million NT$)

Green Loans

2020	2021	2022	2023	2024	2030
-	-	-	210	328	Observational indicator

Investment in Green Bonds

2020	2021	2022	2023	2024	2030
-	-	-	77	74	Observational indicator

- Statistics of Green Loans and Investments by the Bank of Kaohsiung.

SDG 13: Take urgent action to combat climate change and its impacts

Indicator

*The 2024 implementation results met the 2030 target

Volume of detention basins (Mts)

2020	2021	2022	2023	2024	2030
326.6	326.6	434.8	498.0	498.0*	490

- Volume of detention basins in Kaohsiung city.

Volume of detention basins (%)

2020	2021	2022	2023	2024	2030
40	40	40	40	39	Observational indicator

- (Pedestrian areas with permeable pavement in square meters) ÷ (Pedestrian areas suitable for permeable pavements).

Indicator

GHG emissions reduction (%)

15.5	19.4	13.3	20.9	25.1	30
2020	2021	2022	2023	2024	2030

• (Annual GHG Emissions - 2005 GHG Emissions) ÷ 2005 GHG Emissions.

Smart flood prevention and monitoring stations (stations)

172	208	223	267	359	Observational indicator
2020	2021	2022	2023	2024	2030

• Numbers of flood sensors, water level stations and mobile pump sensors.

Sewer monitoring stations

0	0	5	5	5	Observational indicator
2020	2021	2022	2023	2024	2030

• Each monitoring station is equipped with flow meters, water level meters, pH meters, conductivity meters, and total organic carbon analyzing devices.

Number of sustainable campuses (campuses) #

213	234	254	266	280	290
2020	2021	2022	2023	2024	2030

• Cumulative value of approved campuses

Landslide prevention education and training (sessions)

24	50	76	101	127	150
2020	2021	2022	2023	2024	2030

• Training sessions for landslide prevention education and training (including landslide prevention drills, actual military drills, etc.) in total per year.

Awareness raising sessions of high temperature adaptation, prevention and treatment (sessions)

347	861	1,744	1,012	1,792	7,000
2020	2021	2022	2023	2024	2030

• Cumulation of awareness raising sessions of high temperature adaptation, prevention and treatment.

Sustainable environment and high/low temperature adaptation courses (unit: 10,000 people)

10.1	24.6	40.4	24.3	16.2	100
2020	2021	2022	2023	2024	2030

• Cumulation of participants

Indicator

Communities with autonomous landslide disaster prevention (communities)

3	7	13	19	25*	22
2020	2021	2022	2023	2024	2030

• Number of communities awarded with the 2.0 Bronze Community Certification Award for Quality Independent Disaster Prevention Communities by the Water and Soil Conservation Bureau of the Council of Agriculture.

Communities with autonomous flood prevention (communities)

31	32	32	32	33	43
2020	2021	2022	2023	2024	2030

• Number of communities continuously operating the autonomous flood prevention.

Flood Simulation Early Warning Capture Rate (%)

80	80	80	80	80*	80
2020	2021	2022	2023	2024	2030

• 80% as Threshold for Capture Rate of Flooding for Each Torrential Rain Event

Number of Users and Usage of "Water Regime e-Portal" (10,000 persons)

0.7	1.2	1.3	1.4	1.7*	1.4
2020	2021	2022	2023	2024	2030

• New UserGrowth and Reading by Citizens for the Official LINE Account by Year.

SDG 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development

Indicator

Qualified rate of coastal and ocean water quality #

100	100	100	100	100*	100
2020	2021	2022	2023	2024	2030

• Σ(Total numbers of water quality meeting the marine environmental quality standards) ÷ (Effective monitors with 7 water quality indicators)

Marine education and environmental education (sessions)

40	40	40	40	45*	40
2020	2021	2022	2023	2024	2030

• Annual sessions of marine conservation and marine environmental education.

Indicator

Preservation of species

4	7	8	6	4	6
2020	2021	2022	2023	2024	2030

- Clean-ups of the nets in the artificial reefs every year.

Cancelation of fuel subsidies of the illegal fishing vessels.

0	11	8	16	19	Observational indicator
2020	2021	2022	2023	2024	2030

- Cancelation of fuel subsidies of the illegal fishing vessels

Subsidies for off-fishing (%)

98	98	100	98.7	98.9	100
2020	2021	2022	2023	2024	2030

- (Number of approvals) ÷ (Number of applications).

SDG 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

*The 2024 implementation results met the 2030 target
Corresponds to Taiwan Sustainable Development Indicators

Indicator

Forest coverage (%) #

57.9	57.9	57.9	58.4	58.4*	58
2020	2021	2022	2023	2024	2030

- (Forest area) ÷ (Total land area)×100%

Research and investigation report of the natural reserve area managed by Kaohsiung (reports)

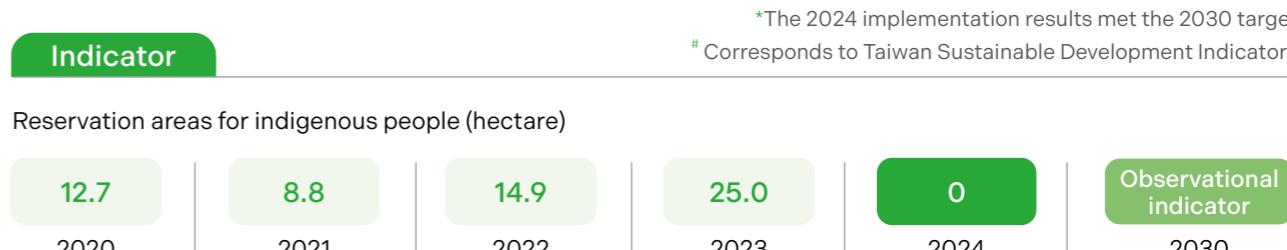| 5	4	3	1	2	Observational indicator
2020	2021	2022	2023	2024	2030

- Number of investigations per year in Wushanding Mud Volcano Nature Reserve and Nanzihsiian River Wildlife Reserve in Namaxia District.

Important wetland area (hectare)

583.5	583.5	583.5	583.5	583.5	Observational indicator
2020	2021	2022	2023	2024	2030

- According to the Wetland Conservation Act, the total area of international, national, and local grades of important wetlands approved by the central government.

*The 2024 implementation results met the 2030 target
Corresponds to Taiwan Sustainable Development Indicators

Indicator

Reservation areas for indigenous people (hectare)

12.7	8.8	14.9	25.0	0	Observational indicator
2020	2021	2022	2023	2024	2030

- Applications by the public

Memorial trees registered and in conservation (trees)

558	564	579	737	764*	750
2020	2021	2022	2023	2024	2030

- Number of memorial trees in Kaohsiung.

Proportion of reserved area in mountainous areas (%) #

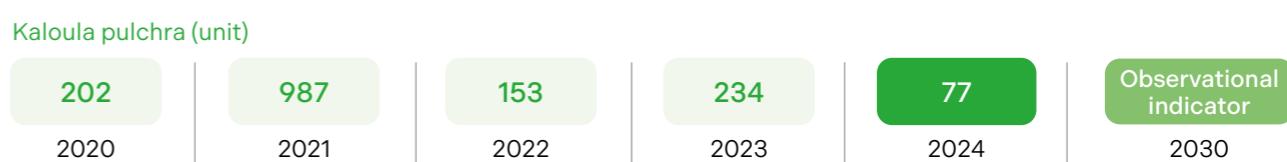| 23.3	23.3	23.3	23.3	23.3	Observational indicator
2020	2021	2022	2023	2024	2030

- (Total area of the city's natural reserves) ÷ (Total area of the city's mountainous areas).

Number of afforestation seedlings given out (unit: 10,000 seedlings)

4.2	4	4.6	4.2	4.1	4.5
2020	2021	2022	2023	2024	2030

- The public was encouraged to apply for the afforestation seedlings.

Removal of alien species #

Kaloula pulchra (unit)

202	987	153	234	77	Observational indicator
2020	2021	2022	2023	2024	2030

Polypedates megacephalus (unit)

36	73	50	147	42	Observational indicator
2020	2021	2022	2023	2024	2030

Egg foams of Polypedates megacephalus (unit)

2	-	-	-	-	Observational indicator
2020	2021	2022	2023	2024	2030

Geopelia striata (unit)

28	138	87	87	82	Observational indicator
2020	2021	2022	2023	2024	2030

Indicator

Copsychus malabaricus (unit)

2020	2021	2022	2023	2024	2030
42	67	124	-	7	Observational indicator

Iguana iguana (unit)

2020	2021	2022	2023	2024	2030
3,047	5,862	5,052	5,052	6,592	Observational indicator

Leucaena leucocephala (hectare)

2020	2021	2022	2023	2024	2030
2	-	4.6	12	8	Observational indicator

Mikania micrantha and Fragrant Eupatorium (hectare)

2020	2021	2022	2023	2024	2030
20.8	23.31	35.72	15.2	22.5	Observational indicator

Mimosa pigra (hectare)

2020	2021	2022	2023	2024	2030
3.5	1.5	1	1.0	-	Observational indicator

Parthenium hysterophorus (hectare)

2020	2021	2022	2023	2024	2030
1	0.5	6	0.5	-	Observational indicator

- Number of removed alien species.

SDG 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

Indicator

*The 2024 implementation results met the 2030 target
Corresponds to Taiwan Sustainable Development Indicators

Violence crimes committed (cases) #

2020	2021	2022	2023	2024	2030
76	51	38	31	28	100

- Cumulation of violence crimes.

Investigation of children under 12 years old in the household of wanted criminals and current criminals in violation of the Narcotic Hazards Prevention Act (%) #

2020	2021	2022	2023	2024	2030
100 (15 people)	100 (16 people)	100 (49 people)	100 (38 people)	100* (36 people)	100

- (Children interviewed by telephone + Children interviewed in-person) ÷ (Children that should be interviewed).

Indicator

*The 2024 implementation results met the 2030 target
Corresponds to Taiwan Sustainable Development Indicators

Investigation rate of children in the household of suspected criminals in violation of the Narcotic Hazards Prevention Act(%)

2020	2021	2022	2023	2024	2030
100 (488 people)	100 (786 people)	100 (402 people)	100 (273 people)	100* (267 people)	100

- (Number of visits to suspects that violated the Narcotic Hazards Prevention Act under a child protection or with vulnerable family for less than one year) ÷ (Number of suspects that violated the Narcotic Hazards Prevention Act under a child protection or with vulnerable family for less than one year).

Crime reporting and requiring for assistance by the general public(%)

2020	2021	2022	2023	2024	2030
29	30.8	28.7	24.6	42.2*	32

- (General public reports through the 110, police phone number, and the 113, women's and children's protection phone number) ÷ (Annual crime reports).

Restorative Justice Seed Teachers (people)

2020	2021	2022	2023	2024	2030
76	72	104	116	135*	120

- Restorative Justice Seed Teachers.

Open data downloads of Kaohsiung City Government (unit: 10,000 people) #

2020	2021	2022	2023	2024	2030
40	43	44	45	47	60

- Cumulation of downloads via Kaohsiung City Open Data Platform.

Kaohsiung City Government information platform queries provided (queries)

2020	2021	2022	2023	2024	2030
452	516	542	585	605	720

- Total amount of query services provided by the Kaohsiung City Government information platform.

SDG 17: Strengthen the means of implementation and revitalize the global partnership for sustainable development

Conference of sustainability (sessions)

2020	2021	2022	2023	2024	2030
4	9	15	25	35	40

- Cumulated numbers of conference and educational training of sustainability.

Indicator

Participating in Fulbright Project (school)

20	22	26	24	24*	20
2020	2021	2022	2023	2024	2030

- Cumulation of school participating in Fulbright Project.

Collaborating projects with international sustainable organizations/government units (projects)

29	29	30	32	35	Observational indicator
2020	2021	2022	2023	2024	2030

- Number of sustainability-related technical or strategic partnerships with international organizations and government units.

International Mental Health Training Center Taiwan (IMHTCT) under the New Southbound Policy (People)

Visiting Taiwan

428	158	110	40	64	Observational indicator
2020	2021	2022	2023	2024	2030

Teaching Abroad

336	168	124	56	116	Observational indicator
2020	2021	2022	2023	2024	2030

- Number of participants from overseas visiting Taiwan and teaching from abroad.

Number of International Events on Sustainability Organized and Participated (Number of Events)

5	1	2	1	3	Observational indicator
2020	2021	2022	2023	2024	2030

- Number of Sustainability-Related international Events Organized and Participated in by City Government Agencies.

Number of Awards from Participation in Domestic/International Sustainability Competitions or Evaluations(by Items)

49	53	20	71	93	Observational indicator
2020	2021	2022	2023	2024	2030

- Awards from Related Competitions or Evaluations

Sustainable Development Information Dissemination (in ten thousands of people)

54.6	78.9	84.8	89.0	363*	104.6
2020	2021	2022	2023	2024	2030

- Cumulative Page Views / Cumulative Visitors (Actual page views from the previous year plus 100,000 people).

Index of SDGs

This index table consolidates the sustainability issues and sub-topics discussed in Chapter 5, Voluntary Local Review, and maps them to the corresponding UN SDG targets, the City's key sustainability indicators, and the relevant report page numbers.

Designed as a navigation tool, the table enables readers to efficiently locate Kaohsiung City's concrete actions and achievements across various sustainability themes through the SDG framework. At the same time, this structured cross-mapping enhances the transparency and traceability of the report's information, thereby supporting alignment with international review standards.

SDG	Corresponding Report Themes	SDG Indicators	Indicator	Page
SDG 1 No Poverty	Implementing Housing and Medical Equity	1.4 Ensure equal rights to ownership, basic services, technology, and economic resources.	Mobile healthcare coverage (%)	32
			Social Housing (%)	32
	Creating Employment Pathways for Low and Middle-Income Households	1.2 By 2030, reduce at least by half the proportion of people living in poverty in all its dimensions.	Rate of applicable workers being supported to work in low-income households or low-middle-income-households	33
	Opening Future Hope Accounts for Children and Youth	1.3 Implement nationally appropriate social protection systems and measures for all, including floors.	Opening rate of children and Youth Future Education and Development Accounts (%)	34
			Continuing deposit rate of Children and Youth Future Education,and Development Accounts (%)	34
SDG 2 Zero Hunger	A Commitment to Safety from Farm to Table	2.4 Ensure sustainable food production systems and implement resilient agricultural practices.	Production and sales history verification area (hectares).	35
	Building a Warm Food Security Net	2.1 Ensure universal access to safe and nutritious food.	In-kind contribution service stations (offices).	36
	Moving Toward Environmentally-Friendly Sustainable Agriculture	2.4 Ensure sustainable food production systems and implement resilient agricultural practices.	Proportion of organic crops area (%)	37
			Agricultural expenditure in the composition of government's annual budget (%).	37
			Public funds in the agricultural sector (unit: TWD 100 million).	37
			Approvals of agricultural rezoning cases in rural communities (piece).	37
SDG 3 Good Health and Well-Being	Creating a Child-Rearing Friendly City	3.7 Ensure universal access to sexual and reproductive health-care services, including for family planning, information and education.	Number of childcare resource stations (offices).	38
			Number of childcare workers (people).	38
			Number of parent-child center visitors served (10,000 people).	38
			Childcare allowance claims (10,000 people).	38

SDG	Corresponding Report Themes	SDG Indicators	Indicator	Page
SDG 3 Good Health and Well-Being	Implementing All-Age Social Care.	3.8 Achieve universal health coverage (UHC).	Social welfare coverage (%).	39
	Homeless Care Services	3.8 Achieve universal health coverage (UHC).	Homeless care project (person).	40
SDG 4 Quality Education	Deepening the Connotation of Campus Education.	4.a Build and upgrade inclusive and safe schools.	Usage Rate of Learning Carriers (%).	41
			Number of Participants (Person-Times) in Teacher Training for Global Professional Competencies.	41
	Building a City of Lifelong Learning for All.	4.3 Ensure equal and affordable access to technical, vocational and quality education.	Lifelong Learning for Women (10K person-times).	42
			Education and Training for Volunteer Service (10,000 people).	42
	Rooting Environmental Literacy and Civic Action.	4.7 Integrate education for sustainable development and global citizenship.	Number of Environmental Education Facilities (places).	43
			Volunteers of environmental protection (unit: 10,000 people).	43
SDG 5 Gender Equality	Establishing Social Values of Equity.	5.1 End all forms of discrimination against all women and girls everywhere.	The sex ratio at birth in Kaohsiung (%).	44
		5.C Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels.	Same-sex marriages (couples).	44
	Enhancing Women's Public Participation.	5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making.	Proportion of deputy chiefs, chiefs of sta and first-level female supervisors in Kaohsiung City Government (%)	45
			Proportion of female non-supervisors in the municipal government and its first-level agencies (%).	45
			Gender ratio of chairpersons of non-governmental organizations (%) (Female).	45
	Building a Gender-Based Violence Prevention Network.	5.2 Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation.	Domestic violence and sexual assault prevention activities of the year (unit: 10,000 people).	46
			Implementation of Domestic Violence Counterparties Counseling Services.	46
SDG 6 Clean Water and Sanitation	Water Resource Sustainability (Open/Reduce).	6.4 Substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity.	Tap water penetration rate (%).	47
			Leakage density of tap water and length of pipeline replacement (km/year).	47
			Recycle of used water (Mts / Days).	47

SDG	Corresponding Report Themes	SDG Indicators	Indicator	Page
SDG 6 Clean Water and Sanitation	Enhancing Clean Water and Public Sanitation.	6.2 Achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations.	Households connecting to public sewer system and sewer (%).	48
			Premium public toilets in Kaohsiung City (%).	48
SDG 7 Affordable and Clean Energy	Energy Efficiency and Renewable Energy.	7.2 Increase substantially the share of renewable energy in the global energy mix.	Solar photovoltaic facilities promoted (GW).	49
			Energy consumption per capita (kWh/people).	49
SDG 8 Decent Work and Economic Growth	Entrepreneurship Cultivation and Support	8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services.	Entrepreneurship training courses held (sessions)	51
			Service of support and advice (people)	51
SDG 9 Industry, Innovation and Infrastructure	Industry and Innovation	9.2 Promote inclusive and sustainable industrialization and, by 2030, raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries.	Promoting of park development and transforming into high-end manufacturing center (unit:100 million TWD).	52
			Number of Entities Receiving Startup Green Economy Model (Number of Entities).	52
SDG 10 Reduced Inequalities	Creating Job Opportunities for Diverse Groups	10.2 Promote universal social, economic and political inclusion.	Employment-by-referral rate of disadvantaged job seekers (%).	53
			Referral of Middle-aged and Elderly Persons for Employment (10,000 people).	53
			Promoting employment for people with physical and mental disabilities (people).	53
	Continuously Monitoring Income Distribution	10.1 Sustainably reduce income inequality.	Ratio of income share of highest 20% to that of lowest 20%	54
SDG 11 Sustainable Cities and Communities	Enhancing Air Quality Monitoring and Control	11.6 Reduce the adverse per capita environmental impact of cities.	Annual average concentration of ne suspended particles (μg/m³)	55
			AQI value	55
			Available air quality automatic monitoring data (%)	55
			Environmental noise monitoring (%)	56
SDG 12 Responsible Consumption and Production	Corporate Sustainability	12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle.	Increase of the issued green factory certificates (factories).	57
			Number of TWSE/TPEx Listed Companies Filing Sustainability Reports (Number of Entities).	57

SDG	Corresponding Report Themes	SDG Indicators	Indicator	Page
SDG 13 Climate Action	Building Urban Resilience and Disaster Prevention Capacity.	13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.	Volume of detention basins in Kaohsiung (Mts)	58
			Smart flood prevention and monitoring stations (stations).	58
			Communities with autonomous landslide disaster prevention (communities).	58
			Communities with autonomous flood prevention (communities).	58
			Landslide prevention education and training (sessions).	58
	Promoting Public Climate Literacy and Sustainable Campuses.	13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.	Awareness raising sessions of high temperature adaptation, prevention and treatment (sessions).	59
			Sustainable environment and high/low temperature adaptation courses (unit: 10,000 people).	59
			Number of sustainable campuses (campuses).	59
SDG 14 Life Below Water	Protecting Marine Health	14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution.	Qualified rate of coastal and ocean water quality (%).	60
			Preservation of species.	60
	Promoting Sustainable Fishery Management	14.4 Effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics.	Cancelation of fuel subsidies of the illegal fishing vessels.	61
			Subsidies for off-fishing (%)	61
	Deepening Public Marine Education	14.a Increase scientific knowledge, develop research capacity and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of developing countries, in particular small island developing States and least developed countries.	Marine education and environmental education (sessions)	62

SDG	Corresponding Report Themes	SDG Indicators	Indicator	Page
SDG 15 Life on Land	Protecting the City's Green Lifeline.	15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally.	Memorial trees registered and in conservation (trees)	63
			Proportion of reserved area in mountainous areas (%)	63
			Number of afforestation seedlings given out (unit: 10,000 seedlings).	63
	Defending Local Biodiversity.	15.8 Introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species.	Iguana iguana (unit)	64
			Research and investigation report of the natural reserve area managed by Kaohsiung (reports).	64
SDG 16 Peace, Justice and Strong Institutions	Crime prevention and social recovery	16.1 Significantly reduce all forms of violence and related death rates everywhere.	Violence crimes committed (cases).	65
			Crime reporting and requiring for assistance by the general public(%)	65
			Investigation rate of children in the household of suspected criminals in violation of the Narcotic Hazards Prevention Act(%)	65
SDG 17 Partnerships for the Goals	Strengthening Sustainable Development Dialogue.	17.19 Further develop measurements of progress on sustainable development.	Conference of sustainability (sessions).	67
			Dissemination of Sustainable Development Information (10,000 Persons).	67
	Expanding Global City Partnerships.	17.16 Enhance the global partnership for sustainable development.	Number of Cooperation Projects with International Sustainable Organizations/Government Entities.	68
			Number of Trainees in the Staff for International Psychiatry under the New Southbound Policy Training Program (Person-Times).	68

2025

Leaving no one behind