



A. Introduction to the National Sustainable Development Awards

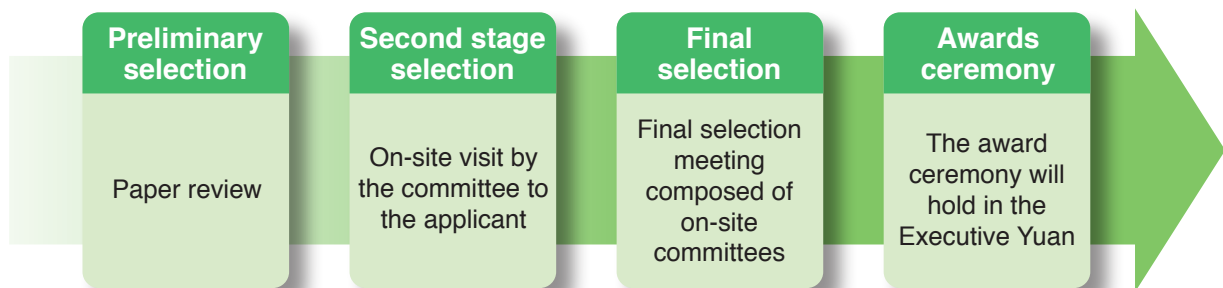
The Executive Yuan's National Council for Sustainable Development established the "Selection and Commendation Plan for National Sustainable Development Awards" to encourage nationwide participation in promoting sustainable development, localizing sustainable development goals, incorporating them into daily life, and achieving the government's sustainable development vision. The award recognizes schools, businesses, civic organizations, and government agencies with outstanding performance in sustainable development.

The judging process comprises three rounds: preliminary selection, intermediate selection, and final selection. After the participants have registered and submitted applications, a jury consisting of NCSO members and experts will make a preliminary selection

by producing written reviews in accordance with the evaluation standards. The jury will then make on-site visits to the participants in the intermediate selection to choose the finalists for the year. The winners will be commended at an award ceremony hosted by the Executive Yuan.

B. 2019 National Sustainable Development Awards selection results

The selection for the "2019 National Sustainable Development Awards" consists of 3 stages, namely, "Document Evaluation" by NCSO working groups, "Site Visit and Evaluation" by NCSO non-governmental members, and "Final Selection" by all reviewers. Twelve winning units will be selected, and as per past awards, the award ceremony will be held in the Executive Yuan in December.



▲ Figure 38 : Selection and Commendation Process for the National Sustainable Development Awards

Table 1 2019 National Sustainable Development Awards winners

Category	Awarded to
Education	Da-Yeh University
	Chaoyang University of Technology
	Chih-Hang Elementary School
Companies	First Commercial Bank
	Far East Tone
	O'right
Civic Organizations	The Society of Wilderness
	Chuang Foo Foundation
	Tse-Xin Organic Agriculture Foundation

Category	Awarded to
Government agencies	Northeast and Yilan Coast National Scenic Area Administration, Tourism Bureau, Ministry of Transportation and Communications, Executive Yuan-Old Train Song
	Hualien District Office, Forest Bureau, Council of Agriculture, Executive Yuan - Fireflies in flatland forest, local creation - establishment of Danongdafu firefly ecotourism
	Department of Public Works, Taoyuan-Circular economy, turning stone into gold - rebirth of waste aggregates in public construction

C. About the Recipients



Da-Yeh University

1. Vision of sustainable development

Based on the philosophies of "only one earth, environmental justice, well-being of generations, and sustainable development," Da-Yeh University incorporates Taiwan's environmental, global change, and sustainable development issues into its teaching materials and activities. It raises the environmental literacy of teachers, students and Changhua residents, practices responsible environmental behavior, and helps create a sustainable society for cross-generational well-being and resource recycling. The development comprises four sub projects, namely, "optimization of green campus planning and practice," "improvement of management performance of school affairs," "expansion of diversified channels for sources of students" and "innovative integration of regional learning resources". Through optimization of green campus planning and practice, it takes active and steady steps towards the vision of a sustainable green university.

2. Sustainable development promotion results

Da-Yeh University integrated a sustainable campus exploration project to improve the school's overall appearance. Through ecological, health and mental aspects, it builds four major cycles, namely water and greenery, resource and usage, energy and temperature reduction, and health and air pollution, creating a beautiful and healthy sustainable campus. The school has complete study aid programs

for less privileged students, comprising various types of assistance such as scholarships and special research grants. Through learning stints in place of a part-time work system, students can participate in special research with peace of mind, showing how education can turn one's life around. Also, an "Environment Education Center" is set up to make Da-Yeh campus a demonstration area for sustainable education. It continues to actively provide environmental education courses and activities for local organizations, schools and the populace, and develops a series of local courses on topics such as environmental protection, ecological conservation, green humanities and sustainable development. It establishes a green environmental co-learning base and works together to promote Taiwan's environmental conservation and sustainable development.



▲Figure 39 : "Zhi-Yong Pond" natural water resources



▲Figure 40 : Reuse of abandoned flower pots



▲Figure 41 : Results of reuse of reclaimed water



▲Figure 42 : Less privileged students participate in laboratory experiments based on their interests



▲Figure 43 : Elderly companionship service



▲Figure 44 : River watch patrol helps the community clean ditches



▲Figure 45 : Students learn to make eco-friendly low-plastic fishnet cup holders

To build the students' soft power, Da-Yeh University promotes service learning courses to cultivate the students' passion for charity, caring for society and serving the public. It widens and deepens the learning content for the students, and establishes in them positive values and better character. The school established the "Da-Yeh University Service Learning Implementation Measures" in 2011, requiring students to complete at least 50 certified hours of service learning within the term. By including it in a formal curriculum, it guides the students in participating in service, building their actual experience as volunteers and serving others. Through the course of actual service, the students become aware that there are still many unfamiliar environments and unknown stories in society, and they also learn how fortunate they are. The positive energy generated drives lifetime volunteering and "Da-Yeh Charity" as ultimate goals.

Da-Yeh University promotes forming alliances with Changhua's local industries. Through practical courses, teachers and students participate in local industry consultation to increase the added value of the industry. Through visits and consultations of teachers and students from local industry-academia collaborative courses, project evaluation, commercialization consulting, diverse intellectual property matching, etc., it creates a Changhua industry-academia co-prosperity ecosystem, driving Changhua's economic development and creating local job opportunities for students. In line with the government's 5+2 Industrial Innovation Plan, teachers and students join forces in providing industrial upgrade assistance. It specifically responds to the

United Nations' 2016-2030 Sustainable Development Goals (SDGs) of "Decent Work and Economic Growth," helping local industries with productivity, providing job opportunities, and promoting sustainable economic growth.

- (1) Integrates local industry's internship learning resources, increases student job opportunities. Recruits operators of local companies as the school's industrial-academia research and development consultants. Through the participation of research and development consultants, it brings more research and development capacities to the school, as well as increases students' learning resources and job opportunities.
- (2) Enhances industrial-academia cooperative strategic alliance, provides local industry optimization service. Actively becoming a bridge between "local industry's needs and demands" and "school's repository that possess knowledge translation value," and organizes local visits and diagnoses, and various policy consultations, referrals and promotion activities.
- (3) Establishes digital integration platform for local resources, promotes local industrial upgrading. Assists local companies in joining the industry chain, technological exchange, counseling, marketing channel expansion and establishment, etc. Establishes three-way cooperation with Changhua County's industry, government, and academia, assists in effective upgrading of Changhua's industrial value.

Chaoyang University of Technology

1. Vision of sustainable development

Chaoyang University of Technology values the development of the character of students and establishing their basic environmental literacy. Building an environmentally friendly and professional campus for the people of Chaoyang to progress, grow, and become professionals well-liked by industry and society, is the key responsibility of the school. To establish a sustainable campus, the school promotes environmental education, caring for life, social service through teaching, research and development, and daily life. By making use of administrative management measures, it aims to encourage the school's teaching and administrative staff and students to practice energy conservation and carbon-reduction. It aims to cultivate socially responsible citizens, so as to establish a campus culture that fosters sustainable development. It also aims to influence neighboring high schools and elementary schools, communities and society in promoting its vision and hopes to become "an application-oriented university based on academia, research and industry." Combining scientific research and industrial research is in line with the school's philosophy of management, which will thereby reform the school system, attaining the development vision of "taking root in Taiwan, moving towards the world, and sustainable development." With an innovative and practical attitude, it will continue to create a new blue ocean for technical education.

2. Sustainable development promotion results

As Taiwan has officially become an aging society, Chaoyang University of Technology established a social care service system for individuals aged 0 – 99 years. The system not only provides early childhood education service, but also integrates the resources of the school's

departments, such as the Department of Golden-Ager Industry Management, in establishing an elderly care system. It includes setting up the "Chaoyang Silver Hair Group," "Community Elderly Care Stations," and "University for Seniors" on campus, providing elderly people with a safe, warm, and happy "home" during the day and reducing the burden on caregivers. It built an interactive system between school and family through three aspects, namely, "establishing a mentor system," "setting up a resource classroom," and "setting up a counseling center" to cultivate students' positive, active values, including health and happiness, gratitude and appreciation, and respect and tolerance.

To show its determination in promoting "Green University," the school has, over the years, been actively investing large amounts of funding and manpower in establishing a green and sustainable campus. It has set up the Department of Environmental Safety and Health to supervise and manage the



▲Figure 46 : Chaoyang University of Technology's establishment blueprint



▲Figure 47 : "Silver Hair" group activities

school's occupational safety and health, to take charge of campus environmental management, to plan and promote sustainability in environmental education and promote the establishment of a sustainable campus, as well as to make overall planning for the school's environmental education. Principle Zhong Ren-Qin was invited by the Ministry of Education on June 4, 2009, to sign the "Talloires Declaration" together with the principles from 12 universities, and thus became one of the schools of the first group to participate in signing the declaration. Influenced by green thinking, and in order to raise the students' awareness and real-life experience in this issue, the school has set up a wide range of environmental education related courses. Through diverse teaching activities, such as outdoor education, food and farming education, aesthetic education, etc., along with community service learning, it cultivates in teachers and students the concept of sustainable development.

Chaoyang University of Technology encourages teachers and students to participate in community service as individuals and groups. It successively set up volunteer groups on campus, including student affairs volunteers, first aid volunteers, library book lover volunteers, volunteer families, etc., extending services to the community, social welfare institutions and even to other countries, exhibiting Chaoyang's spirit of volunteer service. In addition, with increasing numbers of foreign students, in order to let the local community and foreign students learn about each other's cultures,



▲Figure 48 : Students help to organize a feast for elderly people living alone



▲Figure 49 : Foreign students visit Sun Moon Lake



▲Figure 50 : Foreign students' farm experience



▲Figure 51 : Cultural and creative products made from garlic skin

the school organizes activities such as international cultural festivals and one-night countryside stays, providing a chance for community residents and foreign students to learn and get to know each other. Besides localizing sustainable development in our daily lives, the school also links up the manpower and resources of governments and civil society, organizes yearly volunteer services to "south-bound" and African countries, and provides opportunities for people from less privileged domestic groups to go overseas. This has created strong evidence of how Taiwan complies with the United Nations' SDGs.

Chih-Hang Elementary School

1. Vision of sustainable development

Chih-Hang Elementary School, when it was first founded, was named the Air Force Elementary School. The school and its surrounding environment possess a rich culture and history. The building is based on the concept of "freedom, sky, and soaring," which result in the philosophies of "thinking clouds, flying buds," the aim of which is instilling the values of "hope, sun" and "love nature" in the teachers and students. "Environmental Sustainability" — cherishing the earth's resources and respecting all life will give children a healthier life and effective learning; "Education of Sustainability" — learning how nature works develops children's harmonious interpersonal, natural, and social relationships, and creates more opportunities for choices in the future. Hence, providing a quality and sustainable learning environment, enabling children to have "healthy growth, happy living, effective learning, harmonious relationships, a learning culture, and sustainable development" is a goal that the team of Chih-Hang Elementary School works towards.

2. Sustainable development promotion results

With the recognition and affirmation of the school's featured course, "Chih-Hang's Time," established since academic year 2007, the school's excellent program featured course, "Endless Chih-Hang Energy" in academic year 2013, continues to strengthen environment and resources related courses. In academic year 2019, the school proposed the "Lohas Global Village 3.0" course in response to the new curriculum's emphasis on the core concepts of "initiative, interaction, common good," and extending it to the three categories and nine items of core competency sustainable management courses, namely, "self-directed action," "communicative interaction," and "social participation."

Chih-Hang Elementary School's sustainable development education road map is implemented in real-life situations. We inspire the children's keen awareness, lead them in realizing that having a caring



▲ Figure 52 : Chih-Hang Elementary School has a long-standing and sustainable campus environment

heart and performing actions of love for the earth in our daily lives, we can achieve plastic reduction, waste reduction, carbon reduction and energy conservation, and thus establish a long companionship with a beautiful life and ecosystem. In recent years, the school has incorporated into its teaching resources sites such as the neighboring "Jiayou cycling path," "Daojiang canal," "Tropic of Cancer Solar Exploration Center" and "Xuantian Shangdi Temple," the latter of which is reputed for its sky swing. These resources take the children into the community and allow them to get to know the community and care for society. Hence, giving children "healthy growth, happy living, harmonious relationships, and sustainable learning" is the vision and goal that the people of Chih-Hang Elementary School continuously strive for.

Research and development of bicycle courses and the use of the physical resources of the "Jiayou cycling path" unveil the rich history and culture of the Dajiang canal in a gradual, step-by-step approach. It lets the children start from their own position and make connections, from the school, to the community, to Chiayi, to Taiwan, and to the world. Besides imparting knowledge, it also values actual experience. For example, cycling to the Tropic of Cancer Solar Exploration Center and taking the Alishan forest railway are important foundations for the school in promoting sustainable campus courses in the future.



First Commercial Bank

1. Vision of sustainable development

First Commercial Bank is committed to establishing "The Top Brand in Green Finance" and continuously explores ways to make use of the company's strengths to promote the philosophies of green finance and environmental sustainability to its employees, customers, suppliers and the public. By forming a type of green and environmentally friendly DNA, the public will be able to do their part for the Earth, and together move towards the future we want. With more forward-looking and innovative business strategies, it is committed to opening new markets, new customers, and new models, as it continues to implement the business vision of "regional bank, niche bank, happiness bank, digital bank."

2. Sustainable development promotion results

The Bank's headquarters is a building more than 37 years old, which started operation in 1982. To mitigate the building's heat island effect on the environment, the Bank set up the "Obtaining Green Building Label Program" team in 2010, beginning the journey of transforming 74 of its older buildings into green buildings. As of the end of 2018, 22 old buildings were transformed and obtained the Diamond Grade Green Building Label from the Ministry of the Interior, making the Bank the enterprise in Taiwan with the highest number of Diamond Grade Green Building Labels, which reduce a total of 2,432 metric tons of carbon every year.



▲ Figure 53 : Volunteers from First Bank clear a beach of garbage



▲ Figure 54 : The Bank restores wetlands, helps the less privileged, and promotes green lighting

The Bank has, since 2016, organized 15 tree planting activities in which it planted 5,385 trees; this is expected to absorb 53.85 metric tons of carbon emissions every year, playing a part in increasing the Earth's green cover rate; In 2017, responding to the Environmental Protection Administration's "422 National Adopt a Beach Coastal Cleanup" activity, the Bank adopted Linkou's Jiabao Beach, and organized 3 coastal cleanup activities. Nearly a hundred employees and their family members collected about 1,392 kg of garbage, including PET bottles, glass, and other refuse. The Bank has observed Earth Day for two consecutive years, in 2018 and 2019. Green volunteers participated in coastal cleanup in April at Zhunan's Ch'i-ting Beach Resort, Keelung's Waimushan Beach, Taichung's Da'an Beach, and Pingtung's Donggang Ocean Park. They picked up 7,451 kg of fishery waste, general waste, sea driftwood, and other waste.

To protect and revive the ecosystem, such as its rivers and lakes, the Bank cooperated with the non-profit organization The Society of Wilderness in 2016 to protect the wetland in Muzha's Cuihu, and carried out firefly restoration work at Rongxing Garden. With the guidance of the habitat conservation staff, the green volunteers stepped into the lake in chest waders, and under the hot sun and temperature of 35 degrees Celsius, dug out mud from the bottom of the lake with their bare hands, and passed it on to others to be

placed on the shore. The sediment clearing process used natural methods in building up the shore, thus extending the habitat of local aquatic plants.

To support local art and cultural heritage, the Bank's Culture & Education Foundation has been providing local artists, at no charge, a platform and opportunities to display their work over a long period of time. Since April 2011, the first and second floors of the headquarters building has been transformed into a "First Art Space" which provides a performance venue for Taiwan's local artists, transforming the ordinary building space into an elegant art corridor. Every year, it organizes diverse cultural exhibitions on themes such as water color, oil painting, engraving, wood carving, and ceramics. The space incorporates art into the Bank's lobby, shares it with the public, and offers support and vitality to local art.

The Bank is dedicated to integrating its core businesses with environmental sustainability. In 2017, it set up the "Green Finance Committee," linking up green products and services in terms of "green finance," "green investment," "green review," and "green consumer finance." It supports green industry development, is committed to leaving its roots in Taiwan, and avoids providing financing and loans to companies that contribute to environmental pollution or that endanger social welfare.

Far East Tone (FET)

1. Vision of sustainable development

In line with international sustainability trends, and in response to United Nations' sustainable development goals, FET has established its "Blueprint for 2018-2025 Sustainable Development Strategy," linking five main: growth, innovation, care, inclusiveness, and green power. It integrates corporate social responsibility (CSR) into the company's business strategies, and sets specific mid- and long-term goals. During the course of transformation and upgrading, it continues to be innovative and adds value, and makes use of its expertise to promote charity through technologies. Together with stakeholders including suppliers and users, it promotes corporate social responsibility and uses its influence as part of the information and communication industry.

In terms of corporate governance, besides setting up a functional committee under the board of directors, it links senior managers' remuneration with CSR performance to ensure sustainable operational efficacy. In terms of environmental sustainability, FET applies technologies such as cloud technologies, big data analysis, IoT to smart cities, smart parking, air quality monitoring, and big data crowd analysis to help resolve problems such as traffic and air quality. In terms of social inclusion, FET has invested hundreds of millions in recent years in executing the "Mountain Coverage Program" to enhance infrastructure in remote areas, and has attained 96% LTE signal coverage in offshore and remote areas.

2. Sustainable development promotion results

In 2017, FET implemented the social return on investment (SROI) assessment method, and forecasted that the Cherish the Earth activity will generate NTD3.17 of social value for every NTD1 invested. Based on the forecasted results and stakeholder feedback and recommendations during negotiation, the programs were adjusted and optimized. In 2018, the results were recalculated, and the SROI for 2017 increased from the original forecasted value of NTD3.17 to NTD3.79,



▲ Figure 55 : FET's roadmap to sustainable development



▲ Figure 56 : China Petroleum Corporation's smart green gas station



▲ Figure 57 : Taiwan Environmental Information Association's One Million Green Actions

an increase of 20%. Extending from 2017, the 2018 Cherish the Earth activity is in line with the carbon reduction goal of the UNSDGs. Similarly, it is based on three major aspects, "establish FET's green culture, promote environmental education, and advocate responsible consumption." It aims to engender 9,000 environmental protection green actions from the public. As of the end of the year, it has recruited 26,106 people to participate in green actions.

FET has, since 2017, promoted the "Flipping education, spreading love" program. Through cross-industry collaboration, it works with Professor Benson Yeh from National Taiwan University, who developed the world's first online gaming platform for education, PaGamO, to integrate "learning" into "gaming," thus raising learning motivation for children in remote areas. In 2018, 119 volunteers from FET helped 984 students from 115 classes in 26 remote area schools in northern, central and southern Taiwan, by launching digital learning through a "key," providing children in remote areas with warm companionship. To help young children obtain proper care during their wait for foster homes, FET cooperates with The Child Welfare League Foundation in promoting the 12th "Fundraising for less privileged children," and together designed "House of Love" wooden blocks, which are available for sale for charity

in all FET branches. In addition, based on the concept of "home," FET launched the "Building a Home with Love Fundraising Fair," changing traditional fundraising methods by linking online with offline and establishing Taiwan's largest charity network. FET has raised more than NTD40 million for The Child Welfare League Foundation, helping more than 1,400 orphans have a healthier childhood.

In response to UNSDG 11: In sustainable cities and communities, with IoT, smart devices and wearables which can be found everywhere, AloE and artificial intelligence networks have influenced the development of smart cities, and help to build sustainable communities. Through the building of smart cities, FET promotes the integration of economic, social and environmental aspects.

- Economic aspect: Through core technologies, promote new economic development, make use of technologies to drive smart cities and create business opportunities
- Environmental aspect: Environmental applications such as traffic big data, smart environmental monitoring, crowd analysis, etc.
- Social aspect: Health+ promotes smart medical treatment, Bobee positioning device reduces the risk of people with dementia or children getting lost



▲Figure 58 : Personal positioning devices promotion for security care

O'right

1. Vision of sustainable development

O'right always believes in "starting from small to change the environment," and is committed to achieving the goal of "zero environmental impact". Through a green, sustainable and innovative plan, it integrates the source of business planning to product design by adhering to green and sustainability concepts. It implements green philosophy from the entire development to every planning detail, attaining sustainable development and continual improvement for the company and continuously protecting the sustainable green home.

O'right established its brand competitiveness based on its core values, namely "green, sustainable and innovation". It is dedicated to fulfilling its carbon reduction commitment for environmental protection, and implements the United Nations' sustainable development goals. Together with other top brands of the world, O'right was invited to join RE100, and made a commitment to attain 100% renewable energy by 2025, becoming the world's first leading zero-carbon brand in beauty products. It continues to find ways to make the Earth more beautiful, and leads by example by inviting the public to protect the Earth with green energy.

2. Sustainable development promotion results

To promote a green working environment and sustainability of nature, O'right raises employees' spirit of mutual respect, mutual assistance and cooperation, and self-management. The "Green Living Guidelines" were formulated for all employees to raise working environment quality and maintain a good working environment, as well as implement the environmental goals of energy conservation and carbon reduction. In addition, we advocate the three philosophies of life, as we believe that a wonderful future is not only about "lifestyles" of people but rather the need to be founded on respect for "life," co-existing in harmony with nature's creatures and "ecosystem". We adhere to the green philosophy of "natural, pure, and eco-



▲Figure 59 : O'right's core values

friendly," develop animal-friendly products, and avoid using animal-derived ingredients.

To promote overall development of society, we are committed to putting down roots in Taiwan, and we continue to expand our scope of operation. Internally, we provide a series of benefits in appreciation for the hard work of our employees; externally, we hold "neighborhood day" from time to time, inviting neighbors to visit our green headquarters building. Residents learn that the plant has passed the "Green Factory Certification," and that the wastewater after treatment does not have waste materials that pollute the environment, hence making it suitable for fish and prawn farming. We also convey our green philosophy, and invite our neighbors to practice environmental protection with us.

O'right holds three major CSR activities every year — turning off lights, beach cleanup, and tree planting. In addition to our distributors, suppliers, employees



▲Figure 60 : The raw material recycling and reuse process of shampoo

and family members who joined us, 4,457 green salon customers also participated in the activity. We also conduct internal environmental training from time to time, which includes SDG briefing, beach cleanup information, and movie appreciation; such training builds environmental protection concepts in employees and deepens the culture of sustainability.

O'right started a mobile office program in 2015. It converted physical offices in Taiwan, which had been leased for customer service staff, into mobile offices, so that employees could schedule flexible time to serve customers, as well as conduct internal meetings through the mobile office. This economizes on idle office space as well as the office's idle electricity consumption. This program increases the efficiency and service quality of sales personnel, as well as

reduces carbon emissions by reducing commuting distances and transportation needs.

O'right is not only known for being a green beauty brand—we also call upon people from all walks of life to participate in carbon reduction actions, spreading green influence externally. With the green energy accumulated, we arouse public awareness of protecting our green home with real actions. O'right has never been just a hair and skin care company. We are dedicated to giving care to people, society, and the Earth. We relieve stress to the Earth in all aspects and love all things on Earth by solving waste impacts, proposing sustainable solutions for improving the environment, and implementing green lifestyles. We do not stop protecting our sustainable green home and strive towards the goal of zero environmental impact.



The Society of Wilderness

1. Vision of sustainable development

The Society of Wilderness (SOW) is committed to environmental protection. We obtain custodian and management rights of wildlands through purchase, long-term lease, custody, or donation. We then protect the land, letting nature run by itself as much as possible and bring it back to life, thereby achieving our society's mission. We preserve Taiwan's native species, allow natural succession of the wilderness, promote the concept of ecological and nature conservation, provide the public an environment and opportunities for nature and ecological education, assist the government in conserving water and soil, maintain natural resources, and train ecology and nature conservation talent. From 2004 to 2018, The Society of Wilderness continued to work towards its mission and objective, continuously protecting Taiwan's natural environment and striving towards the goals of sustainable forests, eco-cities, and plastic-free oceans.

2. Sustainable development promotion results

To achieve the goal of environmental protection, The Society of Wilderness tries to influence various parties using "environmental education" as a tool, and with related "projects," cooperates with the public sector, enterprises, communities and even individuals, in the aim to strike a balance among life, production and ecology. We have connections with institutions, enterprises, alumni, and individuals, and constantly form a virtuous circle in environmental, legal and industrial aspects.

We have been entrusted by the Taipei City Government since November 1, 2004, to manage the "Fuyang Eco Park," in line with the park ecologicalization movement. With "ecological conservation" as the primary consideration, ecological engineering is adopted for extremely low development, and construction is carried



▲ Figure 61 : 2018 was the first year of implementation for the Beach Walk Project.

out with minimal interference, transforming urban parks and green space into forested areas. This is one of the models of ecological development in urban parks and green spaces. During the period of guardianship, through the effort of volunteers, many ecological surveys have been completed, invasive alien species removed, environmental patrols conducted, and habitat maintenance and improvement administered. With its experience operating Fuyang Eco Park, our Taipei Branch is currently actively promoting the "Park Ecologicalization Movement" and legislation of "Ecology Park Management Special Provisions".

In 2010, we launched a long-term companionship program for less privileged children, in which children from pre-school, grade school, or church are able to experience nature and enjoy its surprises six times per year. Wistron Foundation and Summer Star Foundation for Nature Art and Humanity have given this program more love and support. The core value of long-term companionship is to let children progressively experience "loving yourself, loving others, and loving life" through long-term companionship. This is a course of "life education" in nature. Besides guiding children in learning about the environment, it also emphasizes the sensibility of caring for life.

In 2018, we launched the "Beach Debris Rapid Assessment" program together with Greenpeace. With guidance from Japanese and Korean experts, we completed Taiwan's version of a fast surveying method, and trained 50 "beach debris rapid assessment investigators" who then surveyed 121 stations around the island and calculated the total amount and pollution hot spots of beach debris on the main island. The first rapid assessment results show that 50% of beach debris is densely packed on 10% of coastline, and it is estimated that a garbage truck would need 2,000 trips to complete the cleaning. With beach cleanup and plastic reduction becoming a national trend, results from the 2018 plastic free ocean project show that The Society of Wilderness is still able to play a key role in

beach debris issues through both citizen science and policy.

In 2018, we achieved the mission and target of purchasing land for conservation, and held an opening ceremony for The Wilderness No.1, marking an important historical milestone for habitat conservation. Forestry lands on the hillside conservation zone, located in Yilan's Wu Lao Keng with an area of more than 1,760 square meters, is a beautiful forest as well as the habitat of various creatures such as the manidae, crested serpent-eagle, and golden-ringed dragonfly. Though it is a small step towards the goal, it took 23 years to complete. We hope more wildlands will appear in the future.

Chuang Foo Foundation

1. Vision of sustainable development

The foundation was established in 1975, based on the philosophies of wildlife conservation and environmental sustainability. With years of experience in conservation work, the foundation integrates local and overseas resources and is in line with global trends. It strives for the best position and welfare for animals. Its primary concern is African wildlife conservation, followed by conservation of the rhino, and then Taiwan's wildlife (mountain hawk-eagle, Formosan black bear, leopard cat, Eurasian otter, etc.). The beauty of wildlife arouses people's love for wildlife and respect for life. The vision of the foundation is to "attain environmental sustainability and protect the earth for children." It is committed to the promotion of animal conservation and care for international and local endangered species. It hopes to urge people to value the right to life of wildlife and to protect them, and give resources back to society for support. It conducts environmental education for children from remote areas and less privileged children, and conveys correct conservation concepts to the next generation. The mission has remained unchanged over the years. It hopes that citizens are able to experience the surprises and beauty of every detail of life, and care and cherish natural ecology and heritage in the arts and humanities.



◀Figure 62 : The rhino volunteer expedition team visited South Africa

2. Sustainable development promotion results

Besides promoting conservation concepts, the foundation also practices through actions. Since 2015, it has been traveling to South Africa to learn about the conservation status of rhinoceros habitats, in line with international conservation actions. In 2016, it formed a rhino conservation volunteer team to go to South Africa to carry out in-situ conservation work to care for rhino orphans. In 2017, to celebrate World Rhino Day on September 22, 3,000 people gathered in Taiwan to form a huge rhino picture for an aerial shot. The effort of the people has shown the world Taiwan's determination in endangered rhino conservation.



◀ Figure 63 : The rhino volunteer team conducted bilateral exchange with the Taiwanese Representative in South Africa



▲ Figure 64 : "Sign of Hope", a mountain hawk-eagle ecological documentary



▲ Figure 65 : Guided activities on the characteristics of the meerkat family



▲ Figure 66 : Children participated enthusiastically in the environmental education courses

In addition, the foundation is also concerned with conservation of local endangered species. Since 2000, it has been sponsoring well-known ecological documentary director Mr. Liu Yan-Ming in the making of Sign of Hope, a documentary on mountain hawk-eagles. The film took 14 years to complete, and is Taiwan's first ecological film production that completely records in detail the process of how mountain hawk-eagles raise their young. In 2018, it launched a local endangered species conservation program and conducted a series of experimental courses and activities on Taiwan endangered and rare animals, such as the leopard cat, Formosan black bear, and Eurasian otter.

The foundation actively plans for animal conservation courses and conveys correct ecological knowledge. Since 2015, more than 150 classes in ecological conservation and environmental experience, such as "Attention Rhino," "Through the Eyes of the Meerkats," "Everything is Connected" and "Young Rhino Caregivers" have been conducted. 3,500 people have participated in courses to learn about endangered wildlife conservation and the ecological characteristics of species. Through experiential teaching, it spreads

the philosophy and concepts of wildlife conservation, inspiring people of all generations. Ecological conservation exhibitions are also held to teach about the coexistence between humans, environment and wild animals, to work together to protect the environmental ecology, to promote correct next-generation ecological conservation attitudes, and to set the roots for environmental sustainability.

With its extensive experience in species breeding and its conservation talent resources, the foundation promotes animal conservation, restoration, and environmental education, giving back to the society with its resources. 2018 is the 11th consecutive year in which it has invited remote area schools and social welfare groups to its affiliated Leofoo Village. It also cooperates with social welfare groups in launching activities and products. It established a charity platform to give back to society, and holds a charity market to raise funds for Christmas presents for less privileged families. It spreads warmth and is committed to making life better through kindness. With the power of love, it cares for society by taking concrete actions to practice social responsibility.

Tse-Xin Organic Agriculture Foundation

1. Vision of sustainable development

The foundation is committed to promoting transformation of conventional agriculture. It brings its successful experience to indigenous peoples, promoting different programs in Hualien, Taitung and Kaohsiung tribes. With its primary aim being to preserve local culture, it assists in industrial transformation and upgrading, creating a mutually beneficial situation for economy, ecology, and culture. The Venerable Richang (founder of Tse-Xin) once said: "As long as there's life, I'd like to provide care." Hence, the business scope developed by the foundation started from "organic agriculture" and gradually expanded to more services. But most importantly, to spread "kindness" to promote things which are beneficial for people and people, and people and the environment. It hopes to recruit more kindhearted people, and together restore the earth, clean the beaches, solve food safety issues, and build a society with integrity.

- (1) Promote organic agriculture and friendly farming, make Taiwan into an organic island.
- (2) Promote tree planting for carbon reduction, reforestation of mountain and coastal forests, and plant a hundred million trees for the earth.
- (3) Promote the philosophy of plastic reduction, reduce single-use plastic, and clean up marine pollution.

2. Sustainable development promotion results

The foundation has, since 2016, been committed to environmental education in promoting plastic reduction, reaching out to communities, campuses, and enterprises, to convey to people of different age groups the concept and methods of plastic reduction. It is committed to developing plastic reduction teaching materials and activities (such as glove puppetry, board games, and obstacle games) that will connect with people. It invites the public to understand the seriousness of plastic pollution in the ocean and plastic reduction methods in a relaxed manner, so that they will be willing to start to change their single-use consumption behavior in daily life into actions that



▲ Figure 67 : The foundation organized environmental education courses to children

support environmental sustainability. In addition, there are yearly camp activities targeting different groups, such as corporate personnel, teachers, and youth. Carbon reduction talks and activities are specially arranged to invite more people to start reducing waste from single-use plastic waste in their daily lives, and together play a part in protecting the ocean.

In 2009, Tainan Guantian farmers sowed pesticide tainted seeds, resulting in the death of birds after consumption. The birds affected included 88 protected water pheasants; the dead birds all over the place was a ghastly scene. The Forestry Bureau invited the foundation to the place to guide the farmers in converting to organic farming. However, restricted by environmental factors, the place was unable to obtain organic certification. The foundation hence established an eco-label, the "Green Conservation Mark," and updated the Green Conservation Mark regulations to keep up with the times, expanding the ecological protection network for farms.

The foundation cooperates with the Endemic Species Research Institute, Taiwan Agricultural Research Institute, and Tunghai University in addressing issues from various professional aspects. An ecological agriculture demonstration area was established together with New Taipei City's Pinglin and Nantou's Zhongliao. In Nantou's Zhongliao, the foundation counseled the residents on friendly farming, the Jiji Endemic Species Research Institute advocates leopard

cat conservation, the Taiwan Agricultural Research Institute provides farming technological support and soil monitoring, while Tunghai University conducts evaluation and improvement using PGS verification

mode. It observes changes in farmland ecology under a friendly farming operation mode and proposes improvement measures, thereby creating new values in the farmland ecological service system.



The Northeast and Yilan Coast National Scenic Area Administration, Tourism Bureau, Ministry of Transportation and Communications, Executive Yuan

1. Introduction

Old Caoling Tunnel is a "bicycle tunnel" that incorporates history, culture, and tourism. The Administration cooperates with bus operators and tour agencies such as a Taiwan Railway tour train, Taiwan Tourist Shuttle and Taiwan Tour Bus. Working

along with other government agencies, schools, local communities and private enterprises, the Administration promotes attractions such as the charming scenery and coastal geology of northeast fishing villages. The various activities in the green LOHAS package tours incorporate environmental education. About 2.6 million tourists have visited the attractions, which have encouraged people from all walks of life to attach importance to the concepts of ecotourism, green tourism, and environmental sustainability. It aims to encourage the local community to become a community of ecology, production, and life, maintaining the landscape of society, ecology, and production. The Administration completed "three tasks": reviving the old railway tunnel as a bicycle path, upgrading the local attraction into a global attraction, and changing a passing-by travel style to traveling with a purpose. By continuing to operate and manage through inter-agency cooperation, it aims to achieve the goals of biodiversity and sustainable industrial production.



▲▼Figure 68 : Launching the concept of "Railway Museum" concept into innovative promotion of Old Caoling Tunnel combines railway and bicycle track

2. Sustainable development promotion results

Fulong used to attract mainly domestic tourists. In recent years, with the launch of cycling tours and with the promotion of cycling travel, the Old Caoling Tunnel alone attracted about 300,000 cyclists every year. The entire Fulong region attracts more than 1.71 million local and overseas tourists per year. Since 2015, the Administration has been participating in the Destination Award of the World Travel and Tourism



▲Figure 69 : Opening of Old Caoling Tunnel

Council's (WTTC) "Tourism for Tomorrow Awards," an award reputed as the "Nobel Prize" of the world's tourism industry. Also, for three consecutive years from 2016 to 2018, it has been awarded "Top 100 Green Destinations," and was awarded Silver in the Green Destinations Awards & Certification Program in 2018. The successful transformation of Old Caoling Tunnel has allowed its beauty to become known to the world. The number of foreign visitors increases every year, successfully transforming a local attraction into a global attraction.

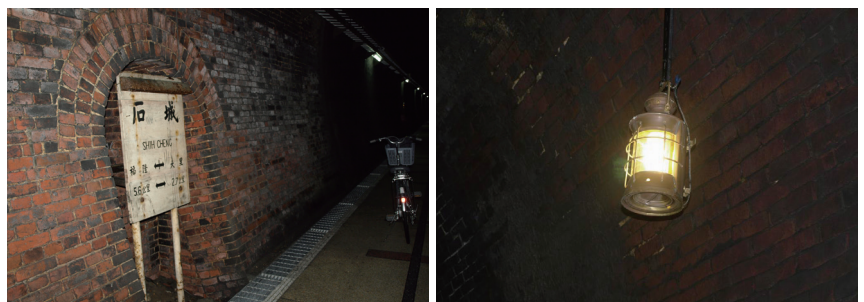
The culturally preserved and reused Old Caoling Tunnel railway is not only popular among tourists, but has also made the locals more concerned for their hometown, and has increased their imagination for the local lifestyle. As more shops and restaurants are gradually set up, it encourages more youths to return to their hometowns to participate in the various promotion activities organized by the Administration, such as

providing discounts and promoting package tickets. The tunnel has retained its historical appearance, and carries memories of local life and historical development. Tourists are able to learn more about local characteristics and stories of the Old Caoling Tunnel. The historical and cultural values of the tunnel extend from the preservation of railway monuments to ecological conservation and sustainable tourism development.

Old Caoling Tunnel leads the development of low-carbon tourism, and follows the index of green tourism (destinations) international certification. The Administration plans transportation and itineraries with minimum carbon emissions, offers local seasonal cuisines and practices green consumption. Besides offering low-carbon tourists with more in-depth experiences of the local culture, it also drives the low-carbon transformation of local industry through participation and implementation in the low-carbon environment. It mitigates population outflow and effectively revives local economies. It has since gained a sense of participation and recognition from locals, and trust from other government agencies. Together, they can preserve local ecology, and the local community's primary industry can gradually transform into a quinary industry which emphasizes cultural heritage and environmental and ecological experience. It promotes the concept of sustainability in the rich geological landscape of the northeast region, ecological environment conservation and tourism resources, and incorporates the strength of local residents in promoting local culture and sustainability.



▲Figure 70 : Tourism promotion of Old Caoling Tunnel policies bring benefits to surrounding industries



▲Figure 71 : Signs and lighting inside the Old Caoling Tunnel

Hualien District Office, Forestry Bureau, Council of Agriculture, Executive Yuan

1. Introduction

With the business philosophy of "three lows" (low carbon, low density, low development), the Hualien District Office organizes firefly watching activities in its "flatland forest park." Upholding the past development goal of "green sustainability," it continues to survey and monitor the ecology of the "flatland forest park" to fully understand the status of species conservation. A subsequent firefly resource survey in 2015 shows that the park has 7 types of fireflies (one of the environmental indicator species). In view of that, the Hualien Office took on the role in preparation and integration of "Fireflies in the Flatland Forest" in 2016, and began holding the "Danongdafu Firefly Festival - Fireflies in the Flatland Forest" in 2017. Besides promoting local agricultural products and creating local eco-tourism industry benefits, it also trains local guides and monitors volunteers, and makes guided firefly watching activities a part of environmental education. It guides the public in getting to know the firefly ecosystem as well as initiates responsible eco-tours. It actively integrates Taiwan's sustainable development goals, and shares with residents the benefits of a green economy, in the aim of "driving local prosperity and creating a green economy through sustainable eco-tourism". Its aim is to let fireflies shine in the "flatland

forest park" forever, and join the trend of global governance in sustainable development.

2. Sustainable development promotion results

"Danongdafu Fireflies Watching" attracts many visitors to Danongdafu every year. After several years of organizing the activities, the single path firefly watching event has been changed and improved into firefly watching itineraries that meet different requirements. In 2019 "Danongdafu Fireflies Watching," there are four different firefly watching routes for different types of visitors: young people, families, disabled groups and the elderly. Besides encouraging surrounding communities in carrying out friendly farming, Hualien Office has in recent years been actively promoting eco-tour and activities with the themes under-forest economy and forest. With the development of diverse "green gold industry," it makes the economy and industry of surrounding communities and tribal villages more complete. In 2019, four local youths returned to their hometown to focus on firefly watching activities and local affairs. The increase in job opportunities arising from flatland forest and firefly watching activities, will attract many young people to return to their hometown.



▲Figure 72 : Monitoring volunteers continue to survey and monitor the ecology of the "flatland forest park"



▲Figure 73 : Flatland forest park has become the best place for firefly watching activities

"Danongdafu Firefly Watching in Flatland Forest" links and integrates surrounding community resources through local "fireflies". With the cooperation of the public and private sectors, an optimal balanced sustainable development model has been attained in ecological conservation work and local industrial development. Besides firefly watching activities, the Hualien Office also actively expands into diverse ecological industrial development. This includes a sea of flowers in spring, local food farmer education in summer, a kite festival in autumn, and a maple festival in winter; as well as guidance in activities such as forest healing, natural art installations, scenic cycling, etc. Together with complete supporting measures, the sustainable development of the flatland forest park is more complete and robust. Also, by counseling surrounding

communities in developing ecologically aware industry, it draws more youth back home to engage in local affairs. It also raises community residents' awareness and recognition of local conservation, as well as increases sustainable development opportunities.

In the future, the Hualien Office will continue to accompany local communities and tribal villages, and encourage local residents to engage in ecological conservation work of the flatland forest park in three aspects, namely, equality, economy, and ecology. It will lay the foundation for local environmental education and ecological industry development, establish a stable structure for a local sustainable development model, attain the vision of co-prosperity and local creation, and together aim for a sustainable and beautiful future.



▲ Figure 74 : Sustainable system diagram for firefly watching activities

Department of Public Works, Taoyuan

1. Introduction

In line with the six major policies of the national development plan—industrial upgrade and innovative economy, Taoyuan City in August 2017 formed a project team comprising experts and scholars from industry (reuse organizations, asphalt plants, engineering consulting companies), government, and academia, to convert abandoned resources into usable materials through new construction methods. Together, they have completed asphalt plant inspections, and steel aggregate (oxidizing slag) and asphalt concrete milled aggregate pilot projects. At least three asphalt plants in Taoyuan City have obtained stationary pollution source operating permits from the Department of Environmental Protection, which will be able to provide full support for the promotion of a circular economy. The roads under the administration of the Taoyuan City Government cover a distance of 3,283 km, and an area of approximately 41,483,000 square meters (highway 20,761,000; urban road 20,722,000). For waste aggregates (oxidizing slag, milled road materials, incineration slag, etc.) which have long been difficult to treat, suitable regulations have been established to mix them into asphalt concrete, for use in paving roadbed and surface of roads under its administration, or for emergency pothole repair. It can effectively transform waste aggregates into usable materials, giving new life to waste. It will gradually be phased into use in public construction, attaining the goal of national development and circular economy.

2. Sustainable development promotion results

Incineration is the main waste treatment method in Taiwan, followed by landfilling. Burning waste at high temperature generates a huge amount of incinerator bottom ash. Statistics from the Environmental Protection Administration, Executive Yuan, shows that in recent years, Taiwan's incinerator bottom ash amounts to about 800,000 to 1,000,000 metric tons. Due to land scarcity and high population density, Taiwan has insufficient landfill space. Also, with rising environmental



▲ Figure 75 : Fengde Road oxidizing slag pavement work awarded Gold Award

awareness, the concept of sustainable development has become a trend. Recycling and reusing of incinerator bottom ash not only reduces waste, but can also attain the objective of resource sustainability in a circular economy, solving the problems that need to be solved by the government at present.

It is currently known that using steel aggregates (oxidizing slag) to replace 30% of natural ingredients can reduce about 6.24 kg CO₂e of carbon footprint per metric ton. The "oxidizing slag in asphalt concrete pavement pilot project on Fengde Road, Bade District, Taoyuan City" by the Office of Road and Accessory Maintenance, Taoyuan, used 1,300 metric tons of steel aggregates (oxidizing slag), and reduced about 8,112 kg CO₂e of carbon footprint, a CO₂ absorption equivalent of 740 trees in a year. In addition, oxidizing slag asphalt concrete is 25% cheaper as compared to traditional asphalt concrete. The completion of the pilot project has saved more than NTD3.6 million for the city treasury.

In line with the Executive Yuan's forward-looking projects, Taoyuan City proposed four road improvement projects. Bade District's Fengde Road is a 6-lane 2-way road with a width of about 40m, and is an important road that connects with Provincial Highway 4 and the section where Bade District dump trucks travel.

The frequent use by heavy vehicles results in a high pavement damage rate. Oxidizing slags are steel aggregates, with characteristics such as pressure-resistance, hardness, wear resistance, and they are especially suitable for urban roads with heavy traffic and vehicles braking repeatedly. Mixing oxidizing slag with asphalt can significantly increase the durability and lifespan of roads, and reduces future road maintenance and management costs. The Circular economy road - Oxidizing slag in asphalt concrete pavement on Bade District's Fengde Road, submitted by the Office of Road and Accessory Maintenance, Taoyuan, was awarded the 2018 Taoyuan City Public Construction Gold Award (awarded on August 20, 2018), and the 18th Public Construction Golden Quality Award (awarded on December 18, 2018) by the Public Construction Commission of the Executive Yuan in 2018.