



# 2020 Taipei City Voluntary Local Review



Global Perspective • Taipei Action

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# Mayor Ko's Preface

In line with the international trend of sustainable development, Taipei City has built a common language and tighter partnership with global cities. We follow the United Nations' framework of Sustainable Development Goals (SDGs) and combine the city government's Strategic Map for the governance vision and guidelines toward 2030. The first report of Taipei City Voluntary Local Review (VLR) was published in 2019. To tackle the all-around challenges of sustainable development for environment, society, and economy more proactively, Taipei City continues and expands the review concerning a total of 11 SDGs this year. These improve our review of the city's sustainability, publishing the 2020 Taipei City VLR.

Inevitably, climate change has a profound impact on humankind's sustainable development. As such, Taipei City has launched climate actions through Greenhouse Gas Control Implementation Plan, Clean Air Action Plan, Circular Taipei Implementation Plan and Garden City Policy, etc. By implementation of energy conservation, resources recycling and urban greening, we aim to achieve carbon reduction and fight global warming together with other cities. In addition, Taipei City promotes Sponge City Policy to enhance the capacity of flood prevention. We also continuously ensure the functions of infrastructure related to water resources and transportation. In response to climate change, measures of disaster prevention and mitigation as well as recovering from disaster are improved locally. Meanwhile, environmental education on climate change is promoted to enhance citizen's awareness and literacy.

Taipei City pursues social justice and equity as its core values. In addition to improve women's participation and their role as a decision-maker in public affairs, the city government promotes the protection of same-sex couples' substantive rights and interests. We value education equity and ensure that all ethnic groups are entitled to education. Furthermore, regarding workforce employment and production patterns, we respect individual

differences and different religious cultures, and remain friendly to foreigners and migrant workers. We deeply believe that only by building a tolerant and inclusive society can bring up a sustainable city with shared prosperity.

The global outbreak of the Severe Pneumonia with Novel Pathogens (COVID-19) in 2020 has impacted the world's sustainable development. Epidemic prevention must be facilitated with the cooperation of central and local governments. Taipei City has taken epidemic prevention measures in advanced, including quarantine hotels, disease prevention taxis, online learning systems, disaster relief volunteers, and face masks vending machines. On the other hand, although the pandemic has impacted the economy, Taipei City views it as an opportunity to promote social transformation, with emphasis on seeking a balance between economic development and pandemic control. Taipei City has proposed economic bailout and stimulus plans, allowing enterprises to have more time to facilitate the transformation. The purpose is to ensure green recovery routes for urban development in the post-pandemic era.

The promotion of sustainable development depends on accumulated results of various governance tasks that keep up with the times. Through objective self-examination, Taipei City will continue with the concept of open government and citizen participation to cover all aspects of city development. We will make efforts towards the vision of a "Livable and Sustainable Taipei" together.



Mayor of Taipei City

*Wen-je Ko*







## COVID-19 Pandemic and the Sustainable Development Actions of the City

Photo provided by Department of Environmental Protection, Taipei City Government.

# COVID-19 Pandemic and the Sustainable Development Actions of the City

According to statistics, as of August 31, 2020, the number of people diagnosed with Severe Pneumonia with Novel Pathogens-Coronavirus disease ( hereafter called COVID-19 ) in the world has exceeded 25 million, affecting more than 187 countries and regions, resulting in one third of the world's population under lockdown. Antonio Guterres, the Secretary-General of the United Nations, had called this "the greatest test since WWI" <sup>1</sup>.

The impacts brought on by COVID-19 pandemic on countries around the world cover all the SDGs and the five major aspects of People, Prosperity, Planet, Peace, and Partnership. In March 2020, the United Nations published a special report "Shared responsibility, global solidarity: Responding to the socio-economic impacts of COVID-19" <sup>2</sup>, pointing out that in the face of recent unprecedented situations, no country can escape from this crisis alone, calling for immediate actions to establish health response measures, and to place the focus on humankind, including women, adolescents, and disadvantaged groups who are already at risk. The whole society must unite, strengthen public-private cooperation, coordinate the creation of innovative policy action plans, and provide financial and technical support to affected groups, to jointly respond to this crisis and evaluate the impacts of the pandemic on various SDGs. The impacts are listed as follows:

## SDG 1

Loss of income, leading vulnerable segments of society and families to fall below poverty line.

## SDG 2

Food production and distribution could be disrupted.

## SDG 3

Devastating effect on health outcomes.

## SDG 4

School for many closed; remote learning less effective and not accessible for some.

## SDG 5

Women's economic gains at risk and increased levels of violence against women. Women account for majority of health and social care workers who are more exposed to COVID-19.

## SDG 6

Supply disruptions and inadequate access to clean water hinder access to clean handwashing facilities, one of the most important COVID-19 prevention measures.

<sup>1</sup>Reference from CNN news in April 1, 2020. [https://edition.cnn.com/world/live-news/coronavirus-pandemic-04-01-20-intl/h\\_b8be364bb133715d2249e9f96e04f11d](https://edition.cnn.com/world/live-news/coronavirus-pandemic-04-01-20-intl/h_b8be364bb133715d2249e9f96e04f11d)

<sup>2</sup>Reference from UN, Shared responsibility, global solidarity: Responding to the socio-economic impacts of COVID-19, in March 2020.

**SDG 7**

Supply and personnel shortages are leading to disrupted access to electricity, further weakening health system response and capacity.

**SDG 8**

Economic activities suspended; lower income, less work time, unemployment for certain occupations.

**SDG 11**

Population living in slums face higher risk of exposure to COVID-19 due to high population density and poor sanitation conditions.

**SDG 13**

Reduced commitment to climate action; but less environmental footprints due to less production and transportation.

**SDG 16**

Conflicts prevent effective measures for fighting COVID-19; those in conflict areas are most at risk of suffering devastating losses from COVID-19.

**SDG 17**

Aggravate backlash against globalization; but also highlight the importance of international cooperation on public health

In addition, as local governments are at the forefront of pandemic prevention, if resources are sufficient, local governments will have a strong capacity for disaster prevention and mitigation. For this reason, the United Nations also calls on central governments of all countries to establish partnerships with local governments. The central governments will coordinate and allocate resources, including funds and human resources, and establish response mechanisms to guide local governments to take effective measures in social, economic, and health aspects, so that local governments can successfully implement pandemic prevention. Then, review the experiences of the implementation process and incorporate them into future implementation references.

In early stages of the pandemic, Taiwan had already listed COVID-19 as a Category Five Infectious Disease, and had immediately set up the Central Epidemic Command Center (CECC). Pandemic prevention measures such as border control on all passengers entering the country, and isolation and quarantine management were implemented. Early preventive measures were also deployed; 60 mask production lines were built in under a month, bringing the daily masks output from two million before the outbreak to 10 million. Together with the name-based mask distribution system, masks became available to the majority of the people. In April, President Tsai Ing-Wen announced the donation of 10 million masks to support to medical use in severely affected countries, Europe, Southeast and South Asia countries. Gather strengths from all countries, and join other countries in regional joint defense in order to effectively fight the pandemic.

In addition to cooperating with the central government to carry out related pandemic prevention work, the City also created both Chinese and English versions of the pandemic prevention SOP. Based on the sustainable development principles of the environment, society and economy, various pandemic prevention measures were launched.

**The corresponding descriptions of each pandemic prevention measure and the City's sustainable development priority goals are as follows:**



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

In order to protect the health of all citizens, and considering that confined spaces are more likely to increase the spread of the pandemic, the City imposed strict regulations of either prohibiting or postponing large-scale events. In terms of mask distribution measures, other than cooperating with the central government on the implementation of name-based mask distribution, the face mask vending system is also promoted to allow for ease of purchase for the people. For home isolation and home quarantine cases, smart technology was used in mobile phone tracking, to trace and monitor home isolation persons. As well, the "Taipei City Hotel Guidance for Coronavirus Disease" was published, and collaborated with 38 hoteliers that transformed into "Quarantine Hotels" to provide accommodation for persons who are unable to find suitable quarantine locations.

For suspected cases and those with medical needs, the "Taipei City Disease Prevention Taxis" and "Taipei City Severe Pneumonia with Novel Pathogens Quarantine Persons Pickups" transportation services were provided. Also, "Rest Stops for Police, Ambulance, and Medical Staff" were set up to provide resting areas for pandemic prevention personnel to reduce the risks of infection.



► Disinfection work in hotels are applied according to "Taipei City Hotel Guidance for Coronavirus Disease."



► Taipei City's promotion of "Taipei Cooc-Cloud" provides students with online learning services.

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

To ensure a healthy and safe teaching environment for both teachers and students of the City, all schools abided by the "Guidance and Health Advice for Schools and Educational Institutions in Taipei City for the Prevention of Coronavirus Disease", and set up body temperature checkpoints in front of entrances to all schools in the City; those with a fever were sent to the hospital for treatment. Meanwhile, the central government's class suspension policy came into effect, such as "Guidelines for the suspension of classes in schools, in the event of confirmed coronavirus cases". If a person from a class is diagnosed, then the whole class will be suspended for 14 days; if two people from the same school are diagnosed, then the whole school will be suspended for 14 days to ensure the health and safety of the students.

Taking into consideration of the students' right to education, the City maintained the "Right to Education during Pandemic Prevention" principle, and used the "Taipei Cooc-Cloud" platform to provide students under home quarantine or class suspension with online live or pre-recorded teaching videos. Free SIM cards with internet access were also provided to economically disadvantaged students, so that all students can receive equal education.



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

To maintain the normal operation of government and businesses, the City government took the initiative to set an example of remote office operation model with either "work from home" or "zoning offices."

To assist industries affected by the COVID-19, and to support enterprise innovation and transformation, various revitalization measures were planned for industries that are more severely affected by epidemic. For instance, the wholesale and retail industries, department stores, restaurants, night markets, tourism, exhibitions, arts, sports and so on.

Based on the daily life of citizens, the government invites experts and industry representatives of different fields to hold a series of online forums, in order to find new business models from living consumption and economic activities such as catering, entertainment, tourism, shopping, education, and working from home.

Nine short-term relief measures were also proposed regarding residents who recently became unemployed. By integrating "Taipei City Pandemic Prevention Employment Program", various departments of the city government provided around 2,000 job opportunities related to pandemic prevention, including telephone calling home quarantine persons, supplies preparation, cleaning of school environment, and sanitization of public areas, and others. Additionally, eight relief measures: "tax deferrals", "rent reductions", "cost reductions", "preferential interest rates", "subsidies", "tax reductions", "rent extension", "rent discontinuation" were implemented, and NT\$370 million were injected into various industries to strengthen the economic momentum, so that the stagnant economy is relieved and the future economic development is ensured.

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

In accordance with the pandemic prevention policy, masks must be worn at all times when taking public transportation in the City. All MRT stations and carriages were disinfected daily; places that passengers frequently come into contact with were sterilized once every four to eight hours. Infrared thermal imaging cameras were set up in major MRT stations, to detect passengers with abnormal body temperature, who would be advised and assisted to seek medical treatment. This was to safeguard the health of all citizens, and ensured that all infrastructure in the city operated as usual.

For crowd gathering locations such as the 18 tourist hotspots, 227 schools, 58 markets, and 33 commercial districts, the City carried out disinfection operations. Furthermore, nine major types of crowd gathering areas, including Taipei Main Station, MRT stations, bus terminals, taxi driver rest stops, transportation hubs, government offices, night markets, business districts,



► Measuring the body temperature at a MRT station.

department stores, and quarantine hotels, were disinfected weekly in order to reduce the risk of infection due to the movement of people, and to maintain the normal life of all residents.

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

To ensure the usual operation of the government, the City had set up a backup mechanism to carry out table top exercises at varying stages of preparation, execution, and removal of extended control. At the same time, to strengthen the concept of pandemic prevention within the community, 1,500 personnel who had undergone disaster prevention training and had obtained disaster prevention certificates were dispatched into the communities to carry out pandemic prevention and health education, to deliver pandemic prevention information to the communities. "Guidance for Communities to Prevent the Transmission of Coronavirus Disease

2019 (COVID-19)" were also issued, to establish community pandemic prevention management mechanism, in order to provide residents with a safe home environment.



► Taipei City COVID-19 Persons Pickups.

## SDG 12 Ensure sustainable consumption and production patterns.

In order to ensure impenetrable pandemic prevention measures, trash produced by home isolation or home quarantine persons were disposed of properly in accordance with the "operation procedures for garbage collection and removal by all levels of government offices in response to COVID-19 home isolation or home quarantine persons" of the Environmental Protection Administration (EPA). The City had hired Class A and B hazardous waste carriers to collect and transport household garbage from home isolation and home quarantine persons to deposit at a designated location. Then, the waste will be disposed of at waste treatment facilities by the EPA. Considering the trash removal needs of home isolation or home quarantine persons, four 25-liter designated garbage bags were distributed to each isolation or quarantine person in order to establish the link with the policy of collection of garbage fees by the bag, and to implement terminal end garbage management.

## SDG 17 Strengthen the means of implementation and revitalize the global partnership for sustainable development.

In order to care for home quarantine or isolation persons, besides pandemic prevention care packages provided by the City, pandemic prevention goods and care packages were also donated by industries and private organizations to be given to home quarantine persons via the City government, as tokens of appreciation to the home quarantine people for their efforts in pandemic prevention. Additionally, as the COVID-19 pandemic had spread globally, and situations overseas are still at its peak, to care for foreign students in the City, 3,000 care packages were prepared for pandemic prevention purposes. In addition to care supplies, each package contained 14 masks and one mask protection cover with two cloth masks. Moreover, one set of reusable tableware with straw, and several redeemable numbers for online video platforms, online magazines, and e-books were included.

Also, through the compilation of the central government and the City's pandemic prevention policies, domestic advantages, and relevant creative pandemic prevention practices of the City, a Taipei City government pandemic prevention standard operating procedure in both Chinese and English was published to serve as reference for sister cities and friendly cities. Thus far, 32 cities have responded, and some have even requested to have video conferences, or have invited Taipei to join their pandemic prevention platforms. These efforts should prove to have profound impact on the future expansion of relations with these international cities.



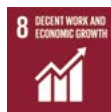
### SDG 3 Ensure healthy lives and promote well-being for all at all ages.

- ◆ Smart tracking systems.
- ◆ Publishing "Taipei City Hotel Epidemic Prevention Handbook for Coronavirus Disease 2019".
- ◆ Provide the service of "disease prevention taxis" and "Taipei City Severe Pneumonia with Novel Pathogens Quarantine Persons Pickups."



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

- ◆ Set up temperature scanning stations in schools, and suspend classes if a case is confirmed.
- ◆ Student(s) under class suspension or home isolation can catch up to class progress via Taipei Cooc-Cloud.



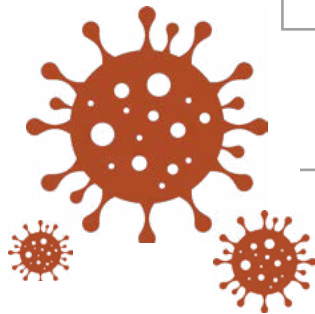
### SDG 8 Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

- ◆ Integrate "A Thousand People in Taipei Participating in the Pandemic Prevention Employment Program 1.0 & 2.0" with "Reassurance Employment Program" and provide 2,000 job opportunities.
- ◆ 9 new economic relief measures. These include rent reduction, interest rate cuts, subsidies, tax cuts, price reduction and extra time to file tax reductions.



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

- ◆ Sanitize MRT stations and carriages daily.
- ◆ Set up infrared thermal imaging cameras to detect passengers with abnormal body temperatures.
- ◆ Taipei main station, MRT stations, business districts, shopping malls are disinfected weekly.



► Relationship Map between COVID-19 and Taipei City's SDGs



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

- ◆ Conduct tabletop exercises.
- ◆ Drills for local transmission, train 1,500 disaster relief volunteer for health education promotions.
- ◆ Issue "Guidance for Communities to Prevent the Transmission of COVID-19", and establish community pandemic prevention management mechanism.



### SDG12 Ensure sustainable consumption and production patterns.

- ◆ Entrust waste management companies to collect trash produced by individuals under home isolation or quarantine, and deposit them in a designated area for disposal.
- ◆ Designated garbage bags are provided to those under home isolation or quarantine.



### SDG17 Stengthen the means of implementation and revitalize the global partnership for sustainable development.

- ◆ Distribution of 3,000 pandemic prevention care packages to study abroad students.
- ◆ Publicly share pandemic prevention experiences.







# Executive Summary

# Executive Summary

On 25th September 2015, the 2030 Development Agenda drafted at the United Nations Sustainable Development Summit was officially set to begin from 1st January 2016. The agenda, which outlined 17 Sustainable Development Goals (SDGs) with associating 169 Targets and 232 Indicators were intended to be the guiding principle in the next 15 years (by 2030).

By evaluating how SDGs could be achieved at the municipal level, keeping track of development progress, and integrating them into the City's own sustainable development strategies and strategic maps, Taipei City in 2019 released the "Sustainable Development Goals - Taipei City Voluntary Local Review". It focused on seven priority promotion goals to be accomplished.

- SDG3**    **Ensure healthy lives and promote well-being for all at all ages.**
- SDG6**    **Ensure availability and sustainable management of water and sanitation for all.**
- SDG7**    **Ensure access to affordable, reliable, sustainable and modern energy for all.**
- SDG11**   **Make cities and human settlements inclusive, safe, resilient and sustainable.**
- SDG12**   **Ensure sustainable consumption and production patterns.**
- SDG13**   **Take urgent action to combat climate change and its impacts.**
- SDG17**   **Strengthen the means of implementation and revitalize the global partnership for sustainable development.**

In 2020, in addition to the seven existing priority promotion goals, the City re-examined the 17 SDGs. Given consideration of the importance of education, gender equality, economic development and infrastructure, four more priority goals were added. They are:

- SDG4**    **Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.**
- SDG5**    **Achieve gender equality and empower all women and girls.**
- SDG8**    **Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.**
- SDG9**    **Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.**

The promotion strategies and outcomes are as follows:



## SDG 3

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

With "healthy city" and "safe Taipei" as the core concept, strengthen community medical care, social security, and health risk management by establishing local health care, reinforce substance abuse prevention and treatment, suicide prevention, and road traffic accident road traffic injury prevention. Consolidate cross-department and non-government resources, provide diversified programs and comprehensive response measures, to ensure healthy lives of the people and promote well-being for all at all ages.





## SDG 4

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

A wide range of subsidy programs for diverse learning resources are provided to all the to back up diverse learning resources for the range from preschool to adult education. Guide students to grasp onto changing technologies, to make use of technology and social network, cultivate cross-disciplinary communication and integration skills to connect to the international stage. Prepare students with holistic education, and practice the competencies in life, to inspire students to break through the comfort zone of learnings. The City provides career choice explorations with diversified learning opportunities, and instills lifelong learning capabilities and attitude in students, to foster innovative and competitive talents. Ensure inclusive and equitable quality education, to nurture innovative and competitive talents.



## SDG 5

**Achieve gender equality and empower all women and girls.**

The SDGs place special emphasis on gender equality, believing that all Goals are related to gender equality. Antonio Guterres, secretary-general of the United Nations stated, "gender equality is the stepping stone to realizing the 2030 Development Agenda." <sup>3</sup> "In 1996, the City formed Committee of Women's Rights Promotion, and in 2014, further set up Office for Gender Equality. In order to promote and realize the goal of gender equality, the City implemented policies on three facets, including personal safety and health promotion, economic empowerment of females, and participation in decision-making. At the same time, eliminated gender stereotypes and improved gender disparities and other cultural customs, and implemented gender equality and promote women participation.



## SDG 6

**Ensure availability and sustainable management of water and sanitation for all.**

In order to build a safe water management system, plans for water supply stabilization and smart management for Feitsui Reservoir is instituted to provide a clean, sustainable and stable water source. Beginning from the upgrade of tap water supply quality to proper processing of sewage, improve and monitor the existing water supply network, to reduce water loss in the process of supplying water. Meanwhile, encourage the sustainable use of recycled water and rainwater, and arrange local activities, so that consensus can be reached among various organizations and community. As a result, a community sustainability model can be established, and the spirit of water resource sustainability can be achieved. Establish a community sustainability model, and carry on the spirit of water recycling.



## SDG 7

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

The promotion of renewable energy and efficient use of energy is the key to sustainable energy. The City has installed a photovoltaic power system at a non-functioning landfill, which has transformed into an environmental restoration park. The landfill site has now become a recreational park for the public, by giving the old place new meaning and by developing renewable energy. Through subsidy programs to increase the incentive for the private sector to set up photovoltaic systems, the output capacity of green electricity increases annually. On the other hand, social housings have led the way in the setup of smart energy management systems, which are used to analyze and control household power usage, thereby increasing the efficacy of energy use. At the same time, an energy saving plan for disadvantaged families is promoted so to maximize energy conservation outcomes while taking care of disadvantaged groups. Stable power output and effective energy conservation bring about sustainable power consumption.

<sup>3</sup> Reference from UN news in February 2020. <https://news.un.org/en/story/2020/02/1058271>



## SDG 8

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

Utilize financing programs to stimulate the growth of startup companies and small and medium enterprises. Concurrently, encourage the procurement of environmentally-friendly products to reduce the impacts of the products on the environment. Assist business units in implementing occupational safety management via educational campaigns, inspections, and other mechanisms; establish an employ-friendly environment, and secure the safety and health of workers. Efforts to safeguard the safety and health of workers such as citizens, specific objects, migrant workers, etc. Achieve the goals "healthy workplace", "safe environment" and "zero occupational accidents", while improving the quality of the workplace and ensuring a healthy environment for industrial development.



## SDG 9

**Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.**

To ensure that residents in the Greater Metropolitan Taipei Area are worry-free about water use, the City has actively implemented operations such as water and soil conservation, tree planting and afforestation, and storing clear water and releasing muddy water and drainage to extend the service life of Feitsui Reservoir. In terms of transportation, "shared, green, digitized, safe" are the visions for public transit. Through combining low-carbon, sustainable transportation and enhancing user convenience, provide "smart, friendly, convenient, and efficient" transportation services to the people. Encourage residents to take public transportation and reduce the usage of private vehicles. Furthermore, the City promotes paratransit buses and general taxies, also provide barrier-free transportation services to the elderly and people with disabilities or mobile impairments so that accessible transportation becomes more holistic, and social welfare will be realized, while residents with disabilities will be cared for at the same time. Reinforce water resources, transportation and social welfare strategies, in order to maintain the daily needs of the residents.



## SDG 11

**Make cities and human settlements inclusive, safe, resilient and sustainable.**

With building sustainable, smart, energy conserving, earthquake-resistant, accessible high-quality housings as the goal, continue to build social housings, create a new lifestyle and establish a model of living architecture. Provide convenient transportation services to improve air quality and reduce impact on the environment. Integrate diversified smart information system into public transportation to reduce riders' waiting time. Meanwhile, provide free barrier-free transport services or transportation subsidies to disadvantaged groups, so that they too can enjoy the convenience of public transportation. Along with the efforts to implement fire prevention tasks, promote the concept of "disaster prevention, reduction, and avoidance", compile the "Disaster Prevention Taipei Manual" and build up the awareness of disaster prevention for all citizens. Ensure the rights of all citizens, and create a city of sustainable environment and disaster-resilience.



## SDG 12 Ensure sustainable consumption and production patterns.

A city is a hub where the people and the economy congregate. It consumes 60~80% of the world's energy and produces 70% of the waste. It is also the main source of greenhouse gas emissions. With financial growth at the City's core, to maintain long-term development of the city and to create a livable living environment, the public sector took the initiative to begin cross-departmental collaboration, and proposed a plan to realize circular economy called "Circular Taipei Implementation Plan".

By establishing key points "disposable and melamine tableware ban" and restriction on single-use plastic products, the public are encouraged to bring their own reusable shopping bags and tableware. In turn, the promotion of self-paid plastic shopping bags and designated garbage bags is a strategy one of dual-use shopping bag, hoping to reduce the use of plastic bags. Create food bank services to realize the goal of sustainable consumption. Start an exchange platform for unused foods at public markets, where unused ingredients of the day can be freely donated. Then match the unused ingredients with disadvantaged families, where its purpose is maximized. With cross-disciplinary collaboration between the public and the private sectors, a sustainable circular city can be created.



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

Influenced by advanced urban development and climate change, all metropolitan cities in the world are facing floods, heat waves, storms, droughts, and other water related disasters and challenges. Extreme climate is not only a great threat to people's lives and properties, it also affects the sustainable development of cities. Accordingly, by creating a sponge city to effectively regulate the microclimate in the city, it can also reduce urban heat island effect; promote Garden City and advocate the concept of food and agricultural education, and combine them with green transportation, green energy, and energy saving strategies. Promote the goal of mitigation and adaptation to climate change, then the vision of a resilient city with climate-safe will be achieved.



## SDG 17 Strengthen the means of implementation and revitalize the global partnership for sustainable development.

Sustainable development is a global task that requires collective effort of each country and city. The City has established the Smart City Project Management Office, and linked strategies from each department to accelerate policy progress and integrate resources. Furthermore, promote industry innovative smart solutions via public-private partnership, and connect with international cities to form the Global Organization of Smart Cities. Through this network, create opportunities for inter-city collaboration and exchanges, and actively participate in international conferences in sustainable development and climate adaptation, and initiate Carbon Disclosure Project of the City. The outcomes of each of these policies have received international recognition.

Meanwhile, establish the Taipei Citizen Participation Committee to break away from the existing top-down policy-making practices, and conduct participatory budgeting, which allows the direct public participation in the government's partial budgeting decisions. It increases budget transparency and raises citizenship awareness, and introduces citizens to active participation of public policies and public affairs.

In the future, actively seeking diversified sustainable development partners will be the goal, where sustainable development will be prioritized as the key communication language linking various targets. Achieve the realization of the vision of economic, environmental and social prosperity.









# Visions and Goals

Photo provided by Department of Information and Tourism, Taipei City Government.





# Visions and Goals

Driven by globalization, and digitization, all major cities play the leadership role in each respective region, which will bring about the competitiveness and sustainability of the city itself and its surrounding satellite cities. The City's advantage is not just in geopolitical dominance or scale of urban construction, but rather in inclusiveness, diversity, and in value of cultural assets, quality of life, environmental protection and natural resources. The City strives to build an eco-city and to increase the sustainable use of resources to create quality living, and model sustainable development based on "environmental protection, promote social inclusion, and boost economic development".

For this purpose, the City has conducted analysis based on national and municipal policy outlook and sustainable development, and through consensus after a multitude of discussions between Taipei Sustainable Development Committee, Taipei City Government and the Promotion Task Force, the vision of Taipei City is outlined "Livable and Sustainable Taipei". The ultimate goals are: "construct a world-class capital that forms a symbiotic relationship between ecological system and environmental resources that enjoys both social security and improvement, and where intelligent economy and technology prosper."

On the foundation of environmental protection, pursue a symbiotic relationship between ecological system and environmental resources. Then, stimulate economic and technological growth with the approach of economic development to achieve efficient production. Ultimately, fulfill the shared vision of engagement of environmental regeneration and resource circulation, promotion of social security and sharing society smart growth of economy and technology.







# Policies and Environment

# Policies and Environment

Taipei City is located in the northern part of Taiwan. Topographically, it is a basin surrounded by mountains on all sides, with a total area of 271.8 square kilometers. It is divided into 12 administrative districts, and it is one of the highly developed cities in Taiwan. The total population of Taipei City was 2,645,041 at the end of 2019. Although it is not the city with the largest population, it is the most densely populated city in Taiwan, and has a diverse racial and ethnic makeup with the indigenous peoples, Minnan, Hakka, post-war mainland immigrants, new immigrants, and foreigners, creating a diversified society. Climate wise, Taipei has subtropical monsoon climate as it is located at 25 latitude North. Average temperatures range from 16 to 30 degrees Celsius, while the annual precipitation amounts to around 1,600 mm. Each year in May and June, the rainy season brings about an abundant amount of rain. In recent years, due to climate change and global warming, Taipei too is exhibiting signs of extreme weather. In terms of temperature, Taipei is severely affected by its basin terrain in the summer, and with the added effect of excessive concrete buildings in the city, air of the heat hard to disperse, thus creating the urban heat island effect (UHIE); the temperature can reach 35 degrees Celsius or higher, which is constantly breaking record highs. For rainfall, days with heavy rainfall that last a very short time have increased, and the time distribution of the rainfall has become irregular; global climate change is testing the sustainable development and governance of the City.

As climate change become harsher, city development will not only face economic considerations, but also how to cope with the impacts brought on by climate change, both of which are important issues in city governance. To protect the environment, promote social inclusion, and boost economic development, the Taipei Sustainable Development Committee, Taipei City Government ( hereafter called the Committee ) was established in 2004 under the framework of global sustainable development. Council members are comprised of government officials, experts and scholars, NGOs, and industry representatives. The organization is divided into seven major task groups, and through member meetings that are held quarterly, periodic adjustments and reviews are made regarding relevant sustainable development issues. With each member truthfully fulfilling their own duties, and through public-private partnership to create a livable, sustainable city that is friendly and healthy, which will not affect the living environment of next generation residents.

Under the guidance of the shared vision of "Livable and Sustainable Taipei", in order to showcase the forward looking and improving city development, rich and diversified city culture, safe and pleasant city life, digitalized and convenient city services, healthy and elegant city environment and various facets of livable sustainability, the Committeel in 2016 periodically amended a total of 47 sustainable development indicators, including 22 international and 25 local indicators, setting implementation goals for



sustainable development according to local conditions.

The City has established the strategic map with eight municipal-level themes. By considering all aspects of development, and linking the map with priority development goals, the budget ratio for relevant sustainable development work can be increased. Then, by making the link to international SDGs, carrying out actual execution plans through top-down approaches, and implementing the concept of "open government" to encourage public participation in civil affairs and to listen to public opinions, the goal of public participation in sustainable development is achieved.







# Background and Methodology

After numerous cross-departmental collaboration and negotiations with experts and scholars, the priority promotion core SDGs were decided in the 49th Committee meeting on October 2017. To decide on the tasks to the corresponding SDG indicators, it was suggested to take reference from the United Nations Sustainable Development Solutions Network (SDSN) and other international cities, in addition to Taipei City's existing foundation of sustainable development goals and strategic maps, to propose or amend the strategies, visions, goals, and execution plans.

## Background

01

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The preparation of the City's Voluntary Local Report was the conclusion derived from the 44th meeting of the Committee in July 2016. It was the existing sustainable development indicators from the City's strategic map, which was used to compare against ISO 37120 indicator from the World Council on City Data (WCCD) and sustainable development goals Indicators from the United Nations. The sustainable development indicators are further addressed. The contents of each indicator are assessed and analyzed, to see whether they can become the City's sustainable development indicators, and adjust the Committee's organization structure according to them.

In the current year ( 2020 ), we will endeavor the effort to extend the results of the voluntary review accomplished in 2019; review the relevance of the 17 sustainable development goals to the entire city, and add 4 priority goals.

Meanwhile, in response to COVID-19 pandemic, all sorts of anti-pandemic response measures undertaken by the City simultaneously echoed the seven sustainable development goals. In September 2020, the second edition of "Sustainable Development Goals-Taipai City Voluntary Local Review " will be officially released, continuing to roll review and adjustment of various tasks and disclose a variety of results on a regular basis to gradually move forward toward the goal of a livable and sustainable city.

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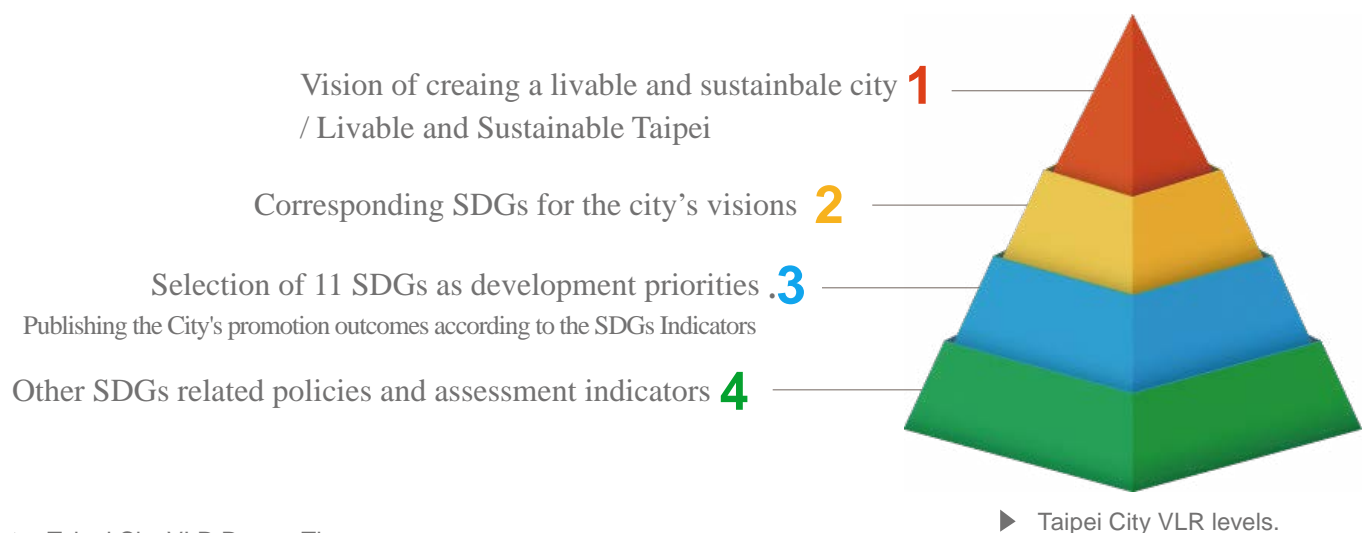
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The Taipei City mayor, Ko Wen-Je, visited the United States in March 2019. In New York, he spoke about the progress on Taipei City's promotion for sustainable development and connection outcomes with the SDGs. During the meeting, following New York's footsteps, he also announced the ideology of "Global Perspective, Taipei Action", and officially published "Sustainable Development Goals - Taipei City Voluntary Local Review" in September 2019, taking progressive strides toward the goal of livable and sustainable city.



# Methodology

In order to have consistent review standards for the voluntary local review, the 2020 version will use the same review standards from 2019, and review the priority development goals via the four tiers. The review standards are as follow:



► Taipei City VLR Report Tiers

1	2	3	4
<ul style="list-style-type: none"> <li>► Sustainable symbiotic environmental resources.</li> <li>► Enjoys both social security and improvement.</li> <li>► Intelligent economy and technology prosper.</li> </ul>	<ul style="list-style-type: none"> <li>► Sustainable Taipei.</li> <li>► Ecological Taipei.</li> <li>► Clean Taipei.</li> </ul>	<ul style="list-style-type: none"> <li>► Safe Taipei.</li> <li>► Cultural Taipei.</li> <li>► Industrial Taipei.</li> </ul>	<ul style="list-style-type: none"> <li>► Compilation of Taipei City's Voluntary Local Review.</li> <li>► Voluntary disclosure of promotion outcomes of SDGs Indicators.</li> <li>► Strategic map.</li> <li>► Healthy City Indicators.</li> <li>► National environmental protection plans.</li> <li>► City Competitiveness Indicators.</li> <li>► Sustainability Indicators.</li> </ul>

## Tier 1: Taipei City sustainable development grand vision "Livable and Sustainable Taipei".

Following the concept of "city SDG", set the foundation of sustainable development for the city, and strategies were formulated and implemented accordingly. The City's strategic planning began in 2004 in response to the impacts brought on by climate change. Based on protecting the environment, promoting social inclusion, and boosting economic development, the Committee was established under the framework of global sustainable development. Through years of effort, under the grand vision of "Livable and Sustainable Taipei", six vision impressions are drafted, 47 sustainable development indicators, 79 execution plans, and 145 work tasks are proposed by following the aspects of three goals: "sustainable symbiotic environmental resources", "social security and improvement" and "intelligent economic and technological prosperity".

## Tier 2: City's core visions corresponding to the SDGs.

The grand vision "Livable and Sustainable Taipei" encompasses the following six core visions; they are "Sustainable Taipei", "Ecological Taipei", "Clean Taipei", "Safe Taipei", "Cultural Taipei", "Industrial Taipei". Each of these correspond to the SDGs.

### Tier 3: City SDGs key development priorities.

Compare and find the correlation between the 17 goals with the City's existing sustainable development goals or related projects, then identify the key commitment achievement. The key development priorities in this review are drafted from the key priority developments of the City, which are sent to experts for consultation and then to the Committee for discussion and decision making.

#### 1. Topic research.

the Committee secretary division conducts SDGs applicability analysis on the city by using the United Nations Sustainable Development Goals to plan the City's sustainable development strategic plans.

#### 2. Duty analysis of each government department.

through cross-departmental meetings, analyze and compile the main duties of each department, responsible tasks and review the strategies and plans, so an estimation of key priority developments can be made.

#### 3. Feedback.

upon education training of undertakers of each government department, provide feedback.

#### 4. Compare existing strategies and indicators.

compare and correlate the 17 goals with the City's existing sustainable development visions, sustainable development goals, strategic map, or related projects, then create a draft of key priority developments of the City.

After the draft of key priority developments is proposed, it is sent to outside experts for consultation review, where the City's priority development goals are selected.

The City has selected 11 priority development goals below. As per selected priority development goals, relevant Target and Indicator items are chosen, a compilation of the City's promotion outcome statistics will be published within this review.

- SDG3 Ensure healthy lives and promote well-being for all at all ages.
- SDG4 Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.
- SDG5 Achieve gender equality and empower all women and girls.
- SDG6 Ensure availability and sustainable management of water and sanitation for all.
- SDG7 Ensure access to affordable, reliable, sustainable and modern energy for all.
- SDG8 Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.
- SDG9 Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation.
- SDG11 Make cities and human settlements inclusive, safe, resilient, and sustainable.
- SDG12 Ensure sustainable consumption and production patterns.
- SDG13 Take urgent action to combat climate change and its impacts by regulating emissions and promoting developments in renewable energy.
- SDG17 Strengthen the means of implementation and revitalize the global partnership for sustainable development.

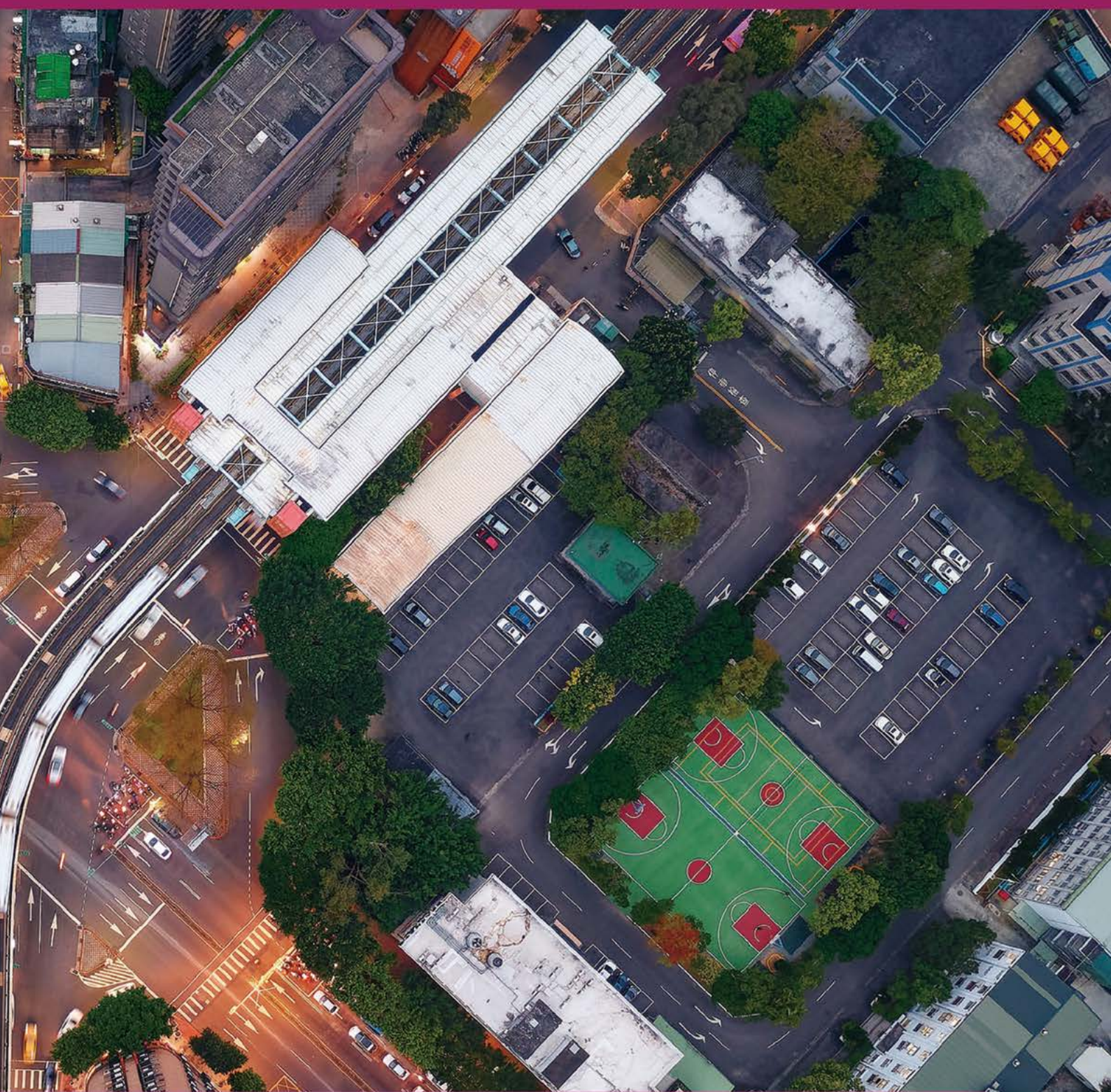
### Tier 4: Other City-related SDG policies and evaluation indicators.

Responding to the SDGs motto "Leaving no one behind", when this review was prepared, in addition to comparing and evaluating the basis of the City's sustainable development strategic planning, other relevant SDGs strategies and assessment indicators were reviewed at the same time. For instance, establishing the strategic map as the policy core, construct eight strategic themes, 104 strategic goals and 257 indicators, and make connections with the national environmental protection plans and indicators such as the City's Healthy City Indicators, City Competitiveness Indicators, and Sustainability Indicators.









# Priority Promotion Goals and Outcomes



# SDG3

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

With "healthy city" and "safe Taipei" as the core concept, strengthen community medical care, social security, and health risk management by establishing local health care, reinforce substance abuse prevention and treatment, suicide prevention, and road traffic accident road traffic injury prevention. Consolidate cross-department and non-government resources, provide diversified programs and comprehensive response measures, to ensure healthy lives of the people and promote well-being for all at all ages.

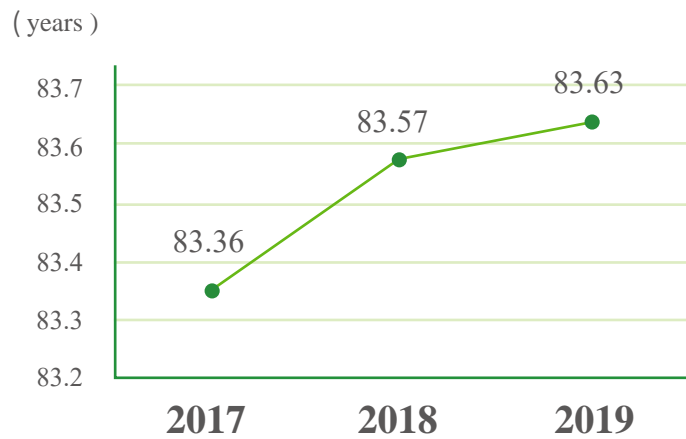


### United Nations SDGs targets currently in effect in Taipei

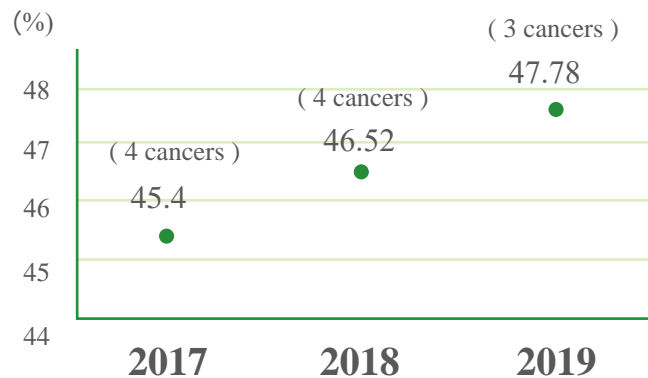
- ▶ 3.4 By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being.  
.....
- ▶ 3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol.  
.....
- ▶ 3.6 By 2020, halve the number of global deaths and injuries from road traffic accidents.  
.....
- ▶ 3.B Support the research and development of vaccines and medicines for the communicable and noncommunicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all.  
.....
- ▶ 3.C Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States.  
.....



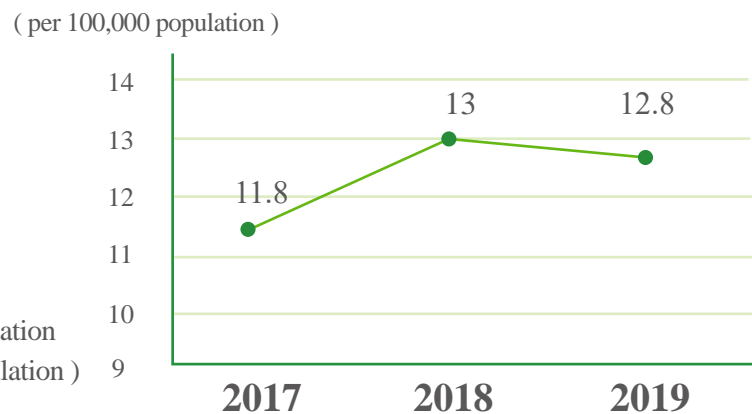
Average life expectancy ( years )  
Target for 2030 : 86 years



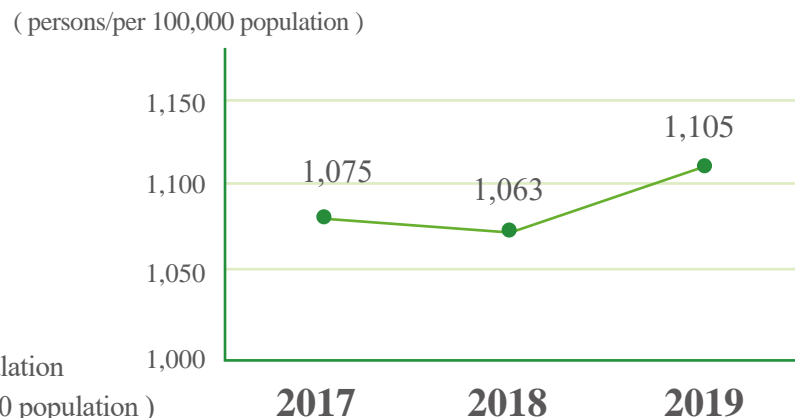
Coverage rates of 3 types of cancer screenings (%) <sup>4</sup>  
Target for 2030 : 50.5 %



Suicide mortality rate per 100,000 population  
Target for 2030 : < 13 ( per 100,000 population )



No. of deaths and injuries from road traffic accident per 100,000 population  
Target for 2030 : < 961 ( persons / per 100,000 population )



<sup>4</sup> In 2018, the Health Promotion Administration, Ministry of Health and Welfare made policy amendments to oral cancer screening and removed the target number of oral cancer screenings, hence the 2019 indicator definition was changed accordingly.

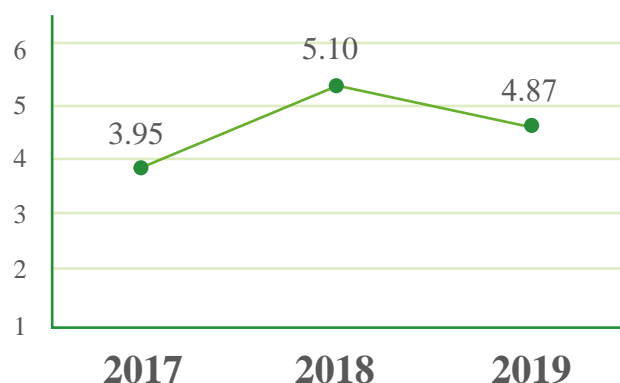




No. of deaths from road traffic accidents  
per 100,000 population in 30 days

Target for 2030 : < 3.61 ( persons / 100,000 population )

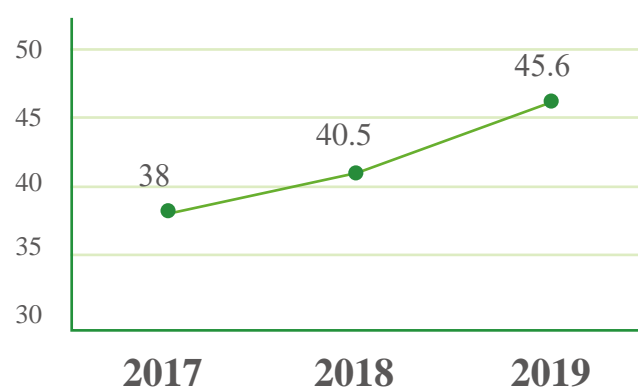
( persons / 100,000 population )



Immunization coverage (%)

Target for 2030 : 54.25 %

(%)



## Provide free vaccinations for high-risk groups.

Continue with the subsidization of influenza vaccination, rotavirus, pneumococcal and routine vaccines to enhance the protection for infants, school-age children, the disadvantaged, the elderly and high-risk groups. In 2019, the subsidization target for pneumococcal vaccines expanded to include indigenous peoples aged 55 and 64, to maintain a high vaccination rate and increase herd immunity. Meanwhile, new vaccination programs are gradually introduced to maintain the health of the citizens and to lower the threat from diseases.



► Pneumococcal vaccination expanded to indigenous peoples aged 55 to 64.

## Extend childcare services.

Create a friendly environment for childrearing; create diversified fair-priced childcare service models to lessen the burden on parents bringing up and caring for children, so to encourage people of marriageable, childrearing age to have children. In 2019, the City organized 21 government-instituted, privately operated infant daycare centers, 53 public infant daycare centers, 165 private infant daycare centers and 4,144 home babysitters with the capacity to provide childcare services to 9,902 infants; the coverage for children under two years old was 22.93% (out of total 43,183) for the City.

At the same time, continue with the promotion of the new quasi-public childcare system, through public-private partnership strategies, incorporate quality private infant daycare centers and babysitters, to provide quality and fair-priced childcare services. The supply ratio for public and quasi-public centers reached 72.72% in 2019.

Also in 2019, the City took the lead in planning for subsidy extensions for children aged two to three and respect the children's differential development needs. When the child reaches two years old, regardless of home babysitter,

public or private infant daycare or family care, parents can continue to receive friendly childcare subsidization and assisting childcare allowance, which substantially decreases the parents' burden on childcare. Depending on the type of childcare and the order of child born, varying degrees of additional subsidy ranging from NT\$4,500 to NT\$12,000 are provided, so that parents can send children to childcare and join the workforce with a peace of mind.

## Establish municipal-level suicide prevention centers.

Upgrade the administration level of suicide prevention. Consolidate cross-department and non-government resources, and establish municipal-level suicide prevention and treatment centers in order to create an intricate network of suicide prevention to effectively prevent suicidal behaviors. Through health education publicity campaigns, continually upgrade the professional knowledge and skills of suicide prevention workers. In 2019, a total of 129 sessions of suicide prevention courses were arranged with 10,233 attendances; the website had accumulated 127,966 page views. Combining forces with professional private institutions, enhance care services and extend visiting services for individuals with suicidal attempts and high risk cases. Up to 7,051 suicide notification cases were received and the care visit rate reached 99.7% in 2019. To prevent suicide and self-harm from jumping off high structures, the "Safety Manual for Falling Prevention" was published, at the same time, fortify falling prevention from buildings in communities and limit the access of lethal tools.



► Teaching scene at Da'an public infant daycare centers in Taipei City.



► Suicide prevention care service call.

## Elderly activity centers for the elderly group.

The City's senior population is increasing rapidly. Ranking No. 1 among metropolitan counties and cities in Taiwan. In an effort to encourage the elderly to continue promoting and enhancing social participation to either prevent or delay aging, the City subsidizes willing and energetic units in various communities to operate elderly activity centers.

Through providing local services in the community, relevant welfare resources are integrated. Diversified services such as care visits, phone greets and consultations, and referral services, meal services, and health promotions are provided to establish a continuous care system. Through subsidizing private organizations, in the bottom-up approach with substantial participation with citizens by creating safe communities with voluntary guardians of the elderly, to ensure the safety and health of the aged people, thereby improving the quality their lives.



► Lively dances performed by elderly activity center.



► Artworks painted by care center elders.

## Substance abuse prevention strategies for minors.

Develop all-round services and multiple contingencies, consolidate relevant departments and develop prevention strategies to reduce the likelihood of relapse from substance use in the underaged. The Department of Education has deployed three tiers of preventive and treatment measures in schools: prevention educational campaigns, urine screening, substance abuse counseling, to prevent substance abuse. The



Police Department has reinforced the investigation of drug crimes, while the Juvenile Counseling Section of the Juvenile Affairs Division oversees of juvenile crime prevention, counseling services for injuries displaying deviant behaviors, counseling for juvenile groups and education advocacy. When the Department of Social Welfare receives reports, the Juvenile Service Center and relevant private organizations will provide such services, and parents of drug-abusing children will be required to attend parental education classes.

For more serious youth cases, "Unique Youth: Integrative Youth Drug Addiction Treatment Center and Medical Subsidy Services" is provided. Through case management by integrating protective support and medical resources for abstinence, it provides youths with abstinence services. At the same time, establish a community for addiction prevention and treatment to form a youth addiction prevention system, and through cross-



► Youth's health service for quitting addiction.

departmental meetings, set up online social groups to enable the referral mechanisms. Reinforce contact channels between the Police Department and schools, to enhance horizontal communication.

## Reduce road traffic accidents.

The City's Department of Transportation proactively selects accident-prone locations within the jurisdiction for analysis. For A1 level accident locations, improve traffic conditions and enhance law enforcements, complete traffic affiliated facilities to provide safety in driving environment for road users. There was a total of 83 A1 level accidents in 2019. All cases were be joint investigation within seven days, and 159 engineering and education safety seminar improvements were proposed. Additionally, regular cross-department accident prevention task group meetings were held, to assess progress and efficacy of each unit on accident prevent, to achieve traffic law enforcement.

The Combine Index (CBI)<sup>5</sup> is used to filter accident-prone locations. Every year, improvement outcomes of each quarter from the previous year are tracked. Then by analyzing the causes types of accident, and types of vehicles and collision diagrams for each location, problems can be diagnosed, and identified using the above responsible agencies will be asked to provide reinforcement or improvement measures.

To enhance the public's concept of traffic safety and road use, various public and outdoor channels are continually used to advocate traffic safety knowledge.



► Set up "look left" and "look right" signs, in order to remind passers-by to pay attention to vehicles.

"Guardians of Traffic Safety" lectures are conducted to incorporate correct traffic safety concepts into various education campaigns and teaching materials; road safety workshops or publicity campaigns are also customized for the application. In 2019, 285 lectures were held with a total of 43,106 attendances.

<sup>5</sup> The Combine Index (CBI) is the sum of Symptom Ratio Index (SRI) and Symptom Severity Index (SSI).

For traffic safety education to take root, the nation's first outdoor traffic park education zone was inaugurated at Taipei Youth Park in 2018. In 2019, the Jing Chuan Child Safety Foundation was entrusted with preparation of interactive learning manuals, training of volunteers and promotion activities. By integrating park facilities with the physical environment into teaching plans, children will gain deeper understanding of traffic safety through situated learning. In 2019, 41 guided tours were applied by schools and organizations, with a total of 2,476 attendances.



► Schoolchildren learning about traffic safety at the traffic park.

## Promote community integrated care service plan.

To integrate the expertise of health and social administration units and properly divide labor, to promote an innovative community integrative care service project. Through integrating medical and mobile home services, hospital visits and repeating medications have decreased for the elderly to avoid overconsumption of health care.

In times of long-term care worker shortage and limited subsidies, it provided a more comprehensive and convenient medical and care service. Beginning from September 2016, through cross-disciplinary collaboration, resources from the health unit and the social unit were consolidated, and the one-stop window care model was created to provide comprehensive services to the disabled.



► Carry on health promotion activity.



Responding to the Ministry of Health and Welfare's long-term care policy in 2018, the community care system was adjusted to provide integrative medical and care services. Integrative services are provided for complex cases requiring cross-disciplinary collaboration, and establish the home carer support service mechanism and construct a network of community resources, and promote long-term care services.

Statistics of all service bases in 12 administrative districts of the City starting from April 2018, the mobile service discovered 1,081 disabled cases in communities, served 1,448 people, online-consulted 6,762 times. Service kiosks were set up in entrusted regions, where health promotion and home carer support activities are held three times a week, totaling 1,417 events with 19,304 attendances.

In 2019, the mobile service discovered 1,304 disabled cases in communities, served

1,097 people, online-consulted 13,233 times. Service kiosks were set up in entrusted regions, where disability deferral, health promotion and home carer support activities are held three times a week, totaling 2,283 events with 30,869 attendances, benefitting even more long-term care cases and their families.

In addition to long-term care policies, local health care model is established, and have carried out the Taipei City Family Responsible Physician Care Integrated Plans. In Taipei City, for every 100,000 people, there are 578.6 registered physicians. In 2019, 4,722 cases were admitted, providing more than 12,746 home care/ medical visit services by physician, thereby implementing the integrative care to whole persons, whole families and whole communities.



► Medical team providing at-home professional assessment and consultation.



## Cancer screening and education.

Integrate non-government resources from medical institutions, medically related associations and NGOs, establish health stops, connect the power of the collective, and work together to "serve the residents, innovate the City". Actively provide cancer prevention health educations, screenings, referrals or health consultation services, including health risks of betel nuts, regular screening reminder services, promotion of integrative screenings and occupational cancer screenings. Set up "Cancer Screening Management Centers" by combining primary traditional and western medicine clinics and community medical institutions, to provide the public with cancer prevention consultation, screening and referral services, and effectively manage through monitoring and assessments the number of high-risk people doing screenings. Improve cancer screening notifications by utilizing "1-on-1 cancer screening voice reminder notifications" services, sending out E-posts (E-mail service systems), mobile messages to encourage the public to undergo screening so to increase the cancer screening rates. In 2019, 466,364 people completed Pap smear screening, 247,249 did mammography screening, 315,131 underwent colorectal cancer screening. The coverage rate reached 47.33%, which helped to discover early cancer and seek early treatment.



► Pap smear community tour bus.

## Establish a support network for dementia.

To provide comprehensive, quality and high accessibility dementia medical services, collaborative contracts are signed between seven hospitals and Taipei City Hospital to provide dementia examination, diagnosis and relevant medical services for over 65-year old residents. For suspecting dementia cases, provide preliminary screening, confirmation and requirement evaluation services to better manage the cases, as well, register in the City's dementia case management system in order to enhance the care and quality of life for dementia patients and their families.

In 2019, the Health Centers screened 60,241 people, of which 438 were confirmed, and 629 were suspected cases; the other seven contract hospitals had 838 confirmed and 1,394 suspected cases, totaling 1,276 people confirmed and 2,023 suspected cases, with a diagnosis rate of 63.07%.



► Activity in the Dementia Center.



► Marketing event and press conference for 2019 Taipei City World Alzheimer's Month.



# SDG4

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

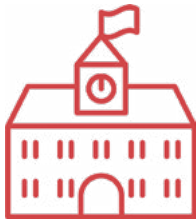
A wide range of subsidy programs for diverse learning resources are provided to all the to back up diverse learning resources for the range from preschool to adult education. Guide students to grasp onto changing technologies, to make use of technology and social network, cultivate cross-disciplinary communication and integration skills to connect to the international stage. Prepare students with holistic education, and practice the competencies in life, to inspire students to break through the comfort zone of learnings. The City provides career choice explorations with diversified learning opportunities, and instills lifelong learning capabilities and attitude in students, to foster innovative and competitive talents. Ensure inclusive and equitable quality education, to nurture innovative and competitive talents.



### United Nations SDGs targets currently in effect in Taipei

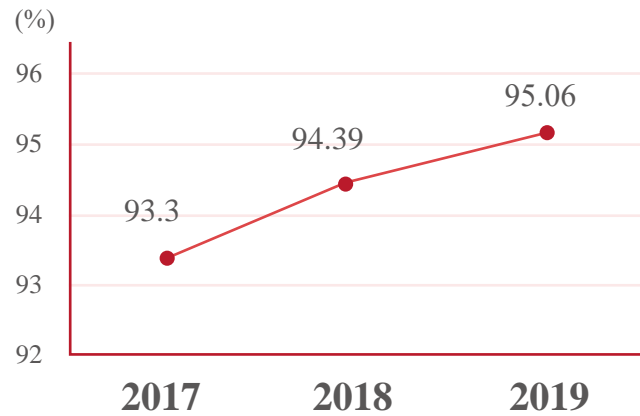
- ▶ 4.1 By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and Goal-4 effective learning outcomes
- ▶ 4.2 By 2030, ensure that all girls and boys have access to quality early childhood development, care and preprimary education so that they are ready for primary education.
- ▶ 4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university.
- ▶ 4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical substantially and vocational skills, for employment, decent jobs and entrepreneurship.
- ▶ 4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations.
- ▶ 4.6 By 2030, ensure that all youth and a substantial proportion adults, both men and women, achieve literacy and numeracy.
- ▶ 4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.
- ▶ 4.A Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, nonviolent, inclusive and effective learning environments for all.





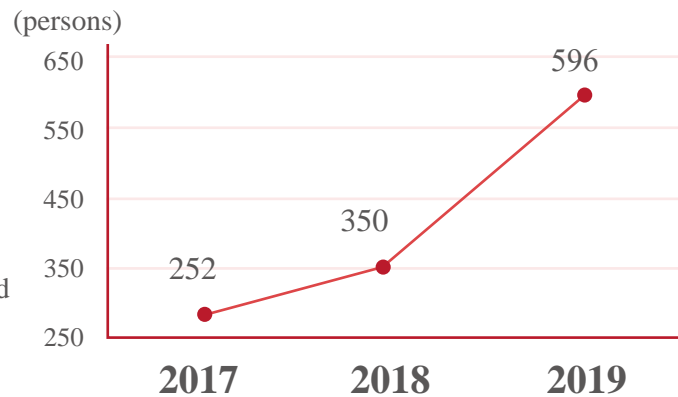
Percentage of 5-year-old children with household registration in the City who enrolled in preschools (%)

Target for 2030 : 97 %



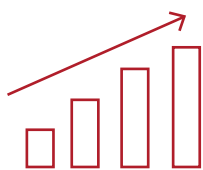
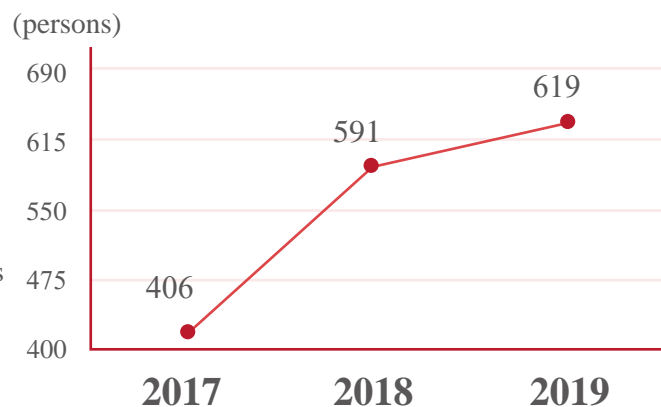
No. Of students participated in technological and vocational education (persons)

Target for 2030 : 2,000 persons



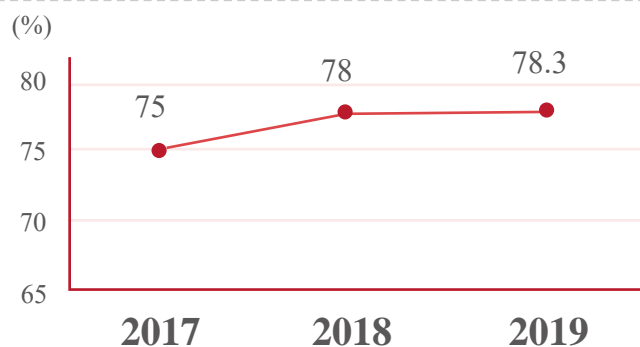
No. of participants in multicultural (indigenous peoples and new immigrants) language courses (persons)

Target for 2030 : 900 persons



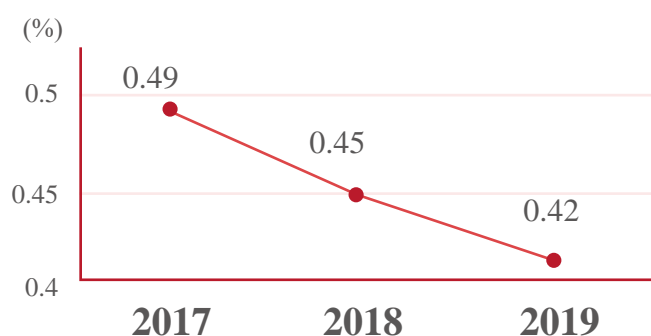
Improvement rate for students who underwent supportive learning counseling (%)

Target for 2030 : 78.5 %



The City's illiteracy rate for people over 15 years old (%)

Target for 2030 : 0.4 %





► Children happily running on elementary school running track.

## Promote "3+2 preschool education core programs".

To fulfill the needs of parents in preschool education, establish friendly education service environment and increase the supply of public education services. Continue to utilize the free spaces in primary and middle schools active by increasing classes or opening new public and non-profit kindergartens. Establish public kindergartens in newly built social housings, and at the same time, actively encourage private kindergartens to join in quasi-public kindergartens in order to increase the supply volume of public education services. Additionally, the City places priority in the setup of special education preschool in the special education school. Then through downward extension of tuition subsidies and distribution of parental subsidies, alleviate the parents' burden of childrearing.



► The Mayor attending the City's non-profit preschool unveiling ceremony.

## Taipei City environmental education program.

Taipei City School Environmental Education Center was established in 2019. By combining cross-domain external resources at the core, arrange environmental education via various activities, teaching plans, course designs and leaflets and educational campaigns. Assist teachers and the general public in understanding various issues in environmental education, so to increase the action knowledge in environmental conservation. Integrate resources from the City's three tiers of environmental education counseling group and experts and scholars, formulate environmental education action strategies and create an alliance of sustainable schools.

## Promote dropout notification, tracking, ounseling and prevention strategies.

Encourage schools to pool relevant resources together from the police unit, the social unit, private organizations, neighborhood communities and construct a network of school district resources. 18 schools were also subsidized in 2019 to establish a counseling resources network for dropouts, to increase counseling outcomes for school resumption. 60 middle schools and 11 primary schools were also subsidized to establish dropout prevention implementations with flexible adaptable courses; 47 middle schools are subsidized to promote diversified skills development classes customizing to the students' needs and orientations. These help students with adaptive exploration, which elevates the students' learning motivation.

In addition, in cooperation with private institutions to set up collaborative dropout classes such as Good Shepard School Academy and Elim Youth Academy, to provide students who are unfit for school systems with multiple schooling choices by planning diversified courses for different varieties of students.

In 2019, the two academies served 40 students, providing them with adaptive learning to complete middle school education. The City has established a student counseling and care service location in the community with collective efforts from Xin Min Junior High School and Taipei City Beitou Culture Foundation. Plan activities and elective courses that students will feel interested in, and arrange for professional career experiences in the community. Lead youths in the search for future careers and create a stage for diversified development.

In order to inspire every child's interest in learning a skill, collaborate with Taipei City Vocational Development Institute. In 2019, opened "Expresso Coffee and Latte Art", "Practices of Chinese Cuisine", "Auto Repair and Maintenance", "Making of the Micro Weather Station" and "Trending Baking", allowing students to explore adaptive vocation and encourage diversified development.



- Plan flexible and adaptive education curriculum; customize the needs and orientations of students through schools, and plan suitable courses. Classes can commence from as low as one student in order to increase the students' learning motivation.

## Free, equitable and quality education.

Since August 2014, the 12-year Basic Education was divided into two stages. The first nine years are national compulsory education as per "Primary and Junior High School Act" and "Compulsory Education Act". The target is school-age children between 6 and 15 years old. Under the principles of being universal, obligatory, compulsory, tuition-free, government-hosted, school districts are divided with exam-free enrollment. The schools are single type schooling where general education is to be taught. The following three years are senior high school education as per "Senior High School Education Act". The target is nationals aged 15 or older. It is universal, voluntary, tuition-free, parallel public and private education, primarily exam-free, multi-type schooling, to consider of both general and vocational education.

In response to the Ministry of Education amendment of "Curriculum Guidelines of 12-Year Basic Education" in 2019, programming and computational thinking were included into high school compulsory courses. The City in 2016 took the initiative to design the syllabus of information and technology courses under science and technology, and prepared primary school "compilations of teaching examples", to allow teachers to gradually nurture the students' abilities in programming, robotic concepts and computational thinking by taking unplugged courses in lower grades of primary schools.



## Implementation of the syllabus of information and technology courses under science and technology.

To take root, the City's primary school students begin learning about information literacy by taking unplugged courses in lower grades, mainly to nurture students in computational thinking, graphical programming and information literacy (i.e. Scratch, Google Blockly). At junior high school level, gradually enhance the students' ability in textual programming, mainly in programming languages such as python, JAVA. At the senior high school level, use textual programming language (i.e. C++) to learn advanced programming, to gradually increase the depth of programming education and computational thinking.

## Installation of inclusive playgrounds in schools.

With the directions of "safety", "accessibility", "inclusiveness", "environmental integration", inclusive playgrounds in schools have been planned, and the design has been discussed with teachers and students of the school, neighborhood residents, physically disabled groups, experts and scholars. Priorities are given to schools that have centralized separate classes and resource classrooms, and have suitable outdoor spaces. Those schools with facilities past their service lives will be prioritized.

In 2019, new inclusive playgrounds have been installed in nine schools: Daan Elementary School, Jianan Elementary School, Heping Experimental Elementary School, Wenlin Elementary School, Tanmei Elementary School, Guting Elementary School, Taipei School of Special Education, Rixin Elementary School, Hsinglung Elementary School. Following this, the goal is to continue to add three schools every year.





## Implementation of supportive learning and stimulated learning program for Taipei City's primary schools.

The "supportive learning and stimulated learning program for Taipei City's primary schools" is implemented. Upon taking the screening test, provide learning opportunities to students needing supportive learning (remedial teaching). Then take knowledge exams to follow up on the students' learning progress, so to increase the students' learning ability.



► Holding relevant supportive learning workshops for teachers.

## Implementation of fundamental education courses for adults of Taipei City.

Utilize free spaces in each school, and by using subsidies from the Department of Education and the City's own funding, encourage each school to implement fundamental education courses for adults. A total of 84 courses were opened in 2019 (58 courses for nationals, 26 for new immigrants), so to complete adult education.



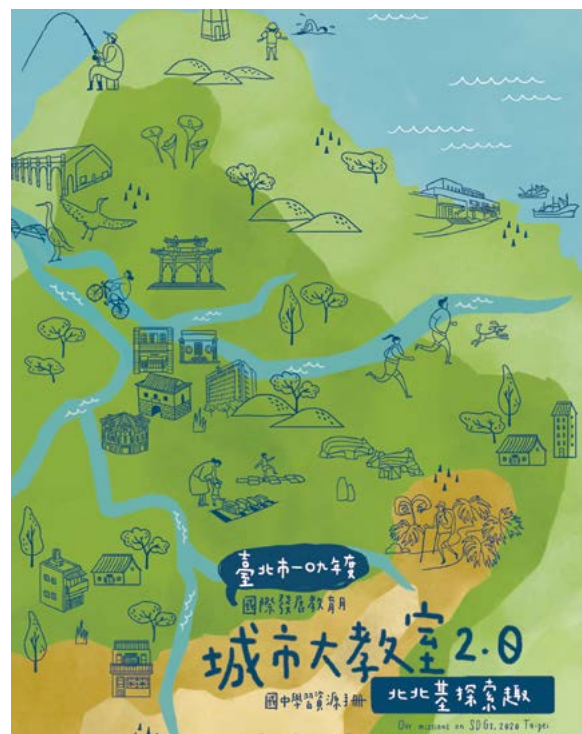
► Adults from fundamental education course taking "Bopomofo Zhuyin" class.



► Group photo of adults from fundamental education course.

## Compilation of SDGs resource handbook for international education month.

To implement thoroughly international education and integrate international education elements into different learning domains, the City scheduled December as the "International Development Education Month" to combine with sustainable development content. Thanks to such elaborate efforts, the students could learn up to about 17 sustainable development goals and issues through learning tasks. Then, in turn, they would take the initiative to act on it and continue to care about issues related to sustainable development and cultivate their national identity, international literacy, global competitiveness as well as global responsibility. Through the efforts to print three sets of resource handbooks for elementary schools (senior grades), junior high school and senior high and senior high vocational schools, we offer such handy resource handbooks into use by public and private schools of all levels. Those schoolteachers could combine the existent courses and integrate them into sustainable development issues in the classrooms, inspiring students to reflect on global issues and work out solution strategies and hands-on practices.



► Taipei City SDGs resource handbook for junior high school.

## Construct student-centered and school-based "friendly campuses" .

As per "Regulations Governing Prevention and Control of Bullying on Campuses" by the Ministry of Education, establish "Taipei City School Prevention and Control of Bullying on Campus Implementation Plan". Construct "friendly campuses" that are student-centered and school-based, and emphasize on aspects of respect, care, empathy, tolerance, safety, inclusiveness. Among which, stress is placed on gender equality education, student counseling mechanism, human rights education, civic education, life education, special education and information literacy and ethics education, to inspire virtue of justice, honor, mutual assistance, care and empathy among peers, in order to eliminate behaviors of campus bullying.



► Campus tour advocating rule of law education.



## 5 principles of constructing friendly campuses.

1	Through day to day teaching, encourage and teach students how to communicate rationally, help others actively and handle interpersonal relationships, to nurture their sense of responsibility, moral ethics, helpfulness and the attitude of self-respect and respect for others, so to create a friendly campus environment.
2	Strengthen the advocacy of rule of law education, moral education, human rights education, life education, gender equality education, information ethics education, deviant behavior prevention and control and victimization prevention, to lay the foundation for prevention and control of bullying on campus.
3	Each school semester regularly holds relevant on-the-job training activities, to fortify knowledge and problem-solving abilities for prevention and control of bullying on campus.
4	Make use of resources from retired teachers and parents association, and hold volunteer recruitment workshops to assist the school in prevention of bullying on campus and fortify campus security inspections.
5	Utilize various education and publicity campaigns, encourage students to apply for investigation of or to report campus bullying incidents as early as possible to facilitate evidence collection and investigation.

## Implementation of supportive employment transition program for Taipei City's senior high school graduates with disabilities.

Students studying in separate classes in senior high schools not only face low employment rates in the workplace due to intellectual disabilities, whether the students' abilities meet the requirements of the job market is also a great challenge. The City values the future employment rate of intellectually disabled students currently studying in senior high schools, so emphasis of course planning is placed on workplace integration. The "supportive employment transition program for Taipei City's senior high school graduates with disabilities" is implemented, and cooperate with the Department of Labor to assist graduates with the application of supportive employment, so that they can successfully make the workplace transit.

## SDG5

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

The SDGs place special emphasis on gender equality, believing that all Goals are related to gender equality. Antonio Guterres, secretary-general of the United Nations stated, "gender equality is the stepping stone to realizing the 2030 Development Agenda." In 1996, the City formed Committee of Women's Rights Promotion, and in 2014, further set up Office for Gender Equality. In order to promote and realize the goal of gender equality, the City implemented policies on three facets, including personal safety and health promotion, economic empowerment of females, and participation in decision-making. At the same time, eliminated gender stereotypes and improved gender disparities and other cultural customs, and implemented gender equality and promote women participation.



#### United Nations SDGs targets currently in effect in Taipei

- ▶ 5.1 End all forms of discrimination against all women and girls everywhere.
- ▶ 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.
- ▶ 5.3 Eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation.
- ▶ 5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decisionmaking in political, economic and public life.
- ▶ 5.6 Ensure universal access to sexual and reproductive health and reproductive rights as agreed in accordance with the Programme of Action of the International Conference on Population and Development and the Beijing Platform for Action and the outcome documents of their review conferences.
- ▶ 5.A Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws.

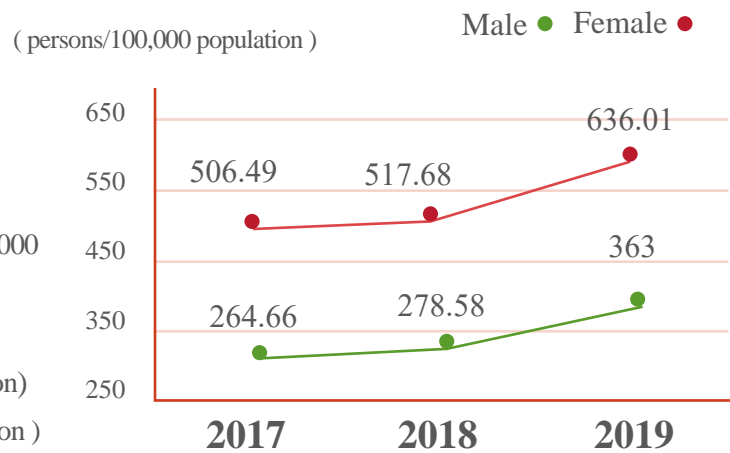


No. of victims of domestic violence per 100,000 people ( persons/100,000 population )

Target for 2030 :

Male 302.08 ( persons/100,000 population )

Female 553.39 ( persons/100,000 population )

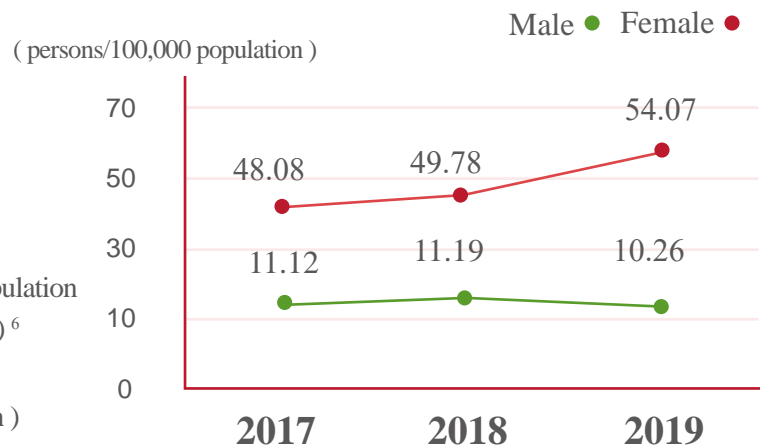


No. of victims of sexual assault per 100,000 population respectively ( persons/100,000 population )<sup>6</sup>

Target for 2030 :

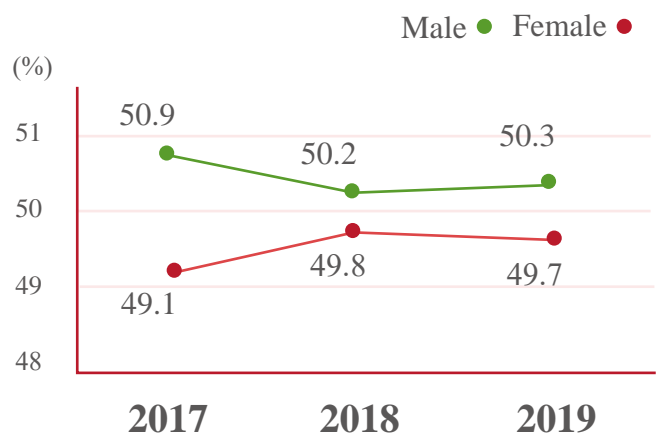
Male 10.86 ( persons/100,000 population )

Female 50.64 ( persons/100,000 population )



Male to female ratio in acquiring real estate ownership (%)

Target for 2030 : Male 50 % / Female 50 %



<sup>6</sup> The target value design principle was estimated from DGBAS statistics between 2014 to 2018. Consideration needs to be taken as originally unreported dark figures are still on the rise, thus an increase in service personnel is assessed.



## Domestic violence and sexual assault prevention and advocacy.

To provide the society with correct concepts of prevention of domestic violence and sexual assault, resources such as the Internet, printed materials, electronic media, outdoor media, radio station insertions, program interviews and short films are integrated, and various publicity campaigns are conducted. To meet the requirements of new immigrants, multi-language versions have been prepared and a QR code has been added, to allow the public to scan the code and browse relevant information on the website.



► The promotion activity of "ONLY YES MEANS YES" in the 424 International Denim day.

In 2019, 127 sessions of publicity campaigns for domestic violence prevention was conducted, including press conferences, dynamic and static campaigns and troupe campaigns. Additionally, 23 sexual assault prevention campaigns, 27 neighborhood workshops were conducted to promote the fundamental concept of "ONLY YES MEANS YES; without consent is sexual assault", and one "424 International Denim Day" sexual assault prevention press conference and seminar was held.

Using popular forms of multimedia of publicity advertisements and short films, increase the exposure rate through network platforms and media, and extend the promotion target to all

ages to enhance the effectiveness of crime prevention promotion. For new immigrants, males and females and teenagers, make use of "Sister Jenny", the official Facebook fan page of the Women's and Children's Protection Division under Taipei City Police Department, to handle various promotional activities. Each district office, when holding activities, meetings or social welfare knowledge workshops for officials, also incorporate the promotion of relevant domestic violence prevention information, so to convey the correct concepts.

Meanwhile, to provide colleagues as well as the general public with sound sexual



- The volunteer team at Domestic Violence and Sexual Assault Prevention Center formed the "Zhen Gu Zhui Drama Group". Every year, they go on tours to all elementary schools to perform short dramas advocating the prevention of violence, to advocate issues regarding the prevention of domestic violence and sexual assault.

harassment prevention concepts, the City has carried out hands-on programs aiming at such topics through educational & training programs and multiple publicity channels. In 2019, the City sponsored a total of 27 sessions of sexual harassment prevention and education training programs. The target trainees include colleagues from various agencies of the City Government that undertake sexual harassment affairs and management purposes, the City's short-term-study schools (known as "buxiban education" as pronounced in Chinese), the family protection officials, medical treatment service providers, rehabus drivers of the entire City. The City sponsored one press conference focusing on "Safe Taxi Ride Absolutely free of a potential Sexual Harassment". In addition, toward taxi drivers (taxistas) of the entire City, we held 28 sessions of sexual harassment prevention and control campaigns. Through hands-on case scenarios and emphasis on the importance of prevention of sexual harassment for personal safety, the City has educated those taxi drivers into the sound awareness of not becoming a perpetrator of a sexual harassment case.



- The advocacy poster of stop domestic violence.



- Sexual assault prevention advocacy.



## Breast cancer prevention and advocacy.

Breast cancer ranks number one in cancer incidence among female cancers; the mortality rate ranks number four among female cancers. Through integrating medical institutions, workplaces and communities, breast cancer screening notifications, inspections and referrals for women of appropriate age and breast cancer high-risk groups are provided. Then collaborate with private cancer prevention organizations, to hold joint press conferences and issue press releases, and print cancer prevention promotion leaflets and posters. As well, promote breast cancer prevention through social network, City Line groups and radio broadcasts, to remind female resident to undergo regular screening, follow through healthy lifestyles. In 2019, the rate of women between 45 and 69 to undergo mammography screenings within the past two years reached 47.68%.



- A press conference advocating the prevention of Breast cancer and Cervical cancer was held on 23rd July, 2019. The celebrities Matilda Tao and Sisy Chen called upon all female residents to go through screenings regularly.

## Teenage pregnancy service network.

Integrate the social unit, the health unit, the civil unit and the education unit, and set up a single contact window to provide teenage pregnancy case management services. To prevent teenage pregnancy, the Department of Social Welfare in 2019 conducted 91 student-parent group courses and 4 education trainings for the staff.

To find out about the protection of the right to education and counseling assistance for pregnant students, the Education Bureau conducts "multiple preventive education model for teenage pregnancy" workshops annually. At the same time, the undertaking school of the City's Committee on Gender Equality

Education prevention group handles incidences of sexual assault, sexual harassment or sexual bullying in schools, counseling strategies and outcome evaluation for underage pregnancy and education training seminars. For underage postnatal women residing in the City, home visits will be conducted by Health Centers from the 12 districts or entrusted professional organizations, to provide postnatal care, health educations and maternity care services. If cases require social welfare services, referrals to the Department of Social Welfare will be made. The completion rate reached 100% in 2019.

## Promotion of heritage inheritance regardless of gender.

Indicate on "Application for Collection of Custodial Money from Expropriation Compensation" that both men and women have the right to inheritance, and through press releases, promotional leaflets, posters and various seminars, promote heritage inheritance is regardless of gender in order to minimize the gap between men and women in the inheritance of land and property. By increasing the proportion of females inheriting land and property, gender equality in heritage inheritance is implemented.



- To limit the gap between men and women in the right of inheritance, we implement gender equality in heritage inheritance.



## Workplace Gender Equality Index implementation plan.

To protect the rights and interests of labors and to improve workplace-friendly environment, so that business units will attach importance to gender equality in the workplace. "Taipei City Workplace Gender Equality Index" was implemented in 2018, to assist enterprises in the promotion of gender equality. Through the implementation indicators, review all aspects of gender equality awareness within the enterprise, and guide enterprises into adjusting existing mechanisms to improve gender equality.

Since 2019, relevant indicator manuals had been made to conduct publicity meetings, challenge camps and other activities, so that the City's business units will have a better understanding of the meanings behind the seven indicators. Meanwhile, a certification label will be designed to symbolize gender equality in the workplace. In the future, the business units achieving certain levels will be awarded the certificate, which will enhance corporate image.

## Gender at birth publicity program.

In addition to promoting "gender equality at birth" to let the public understand that "boys and girls are just as good, they are all born as treasures", to change the patriarchal concept, and to hold seminars on medical ethics and laws of artificial reproduction and gender at birth ratios, to increase the professional knowledge and skills of relevant laws and medical ethics of staff in delivery medical institutions, artificial reproduction institutions and medical inspection institutions. At the same time, the 12-administrative district health service center handles the "birth sex ratio community outreach",

randomly checks the satisfaction questionnaire, and fills in the comments to give positive comments, such as "like various topics of lectures", "men and women equality is very important and should be promoted more often." Also, organize "my grandchild, my precious baby" event on "Humans of Taipei", the official Facebook fan page of the city government, to raise the elder's awareness for gender equality at birth. Posters "boys or girls, my grandchild is my precious baby" are provided to delivery medical institutions and maternity inspection institutions for promotional posting.

## Flexible work program for government employees caring for young children and the elderly.

To cope with problems of declining birthrates and aging population, city government employees will not need to quit their jobs or increase pressure because they need to care for their families. Therefore, the current flexible work policy is expanded, and in accordance with Article 19 in Act of Gender Equality in Employment, working hours are reduced to create workplace-friendly environment by balancing work and family.



## SDG6

### Ensure availability and sustainable management of water and sanitation for all.

In order to build a safe water management system, plans for water supply stabilization and smart management for Feitsui Reservoir is instituted to provide a clean, sustainable and stable water source. Beginning from the upgrade of tap water supply quality to proper processing of sewage, improve and monitor the existing water supply network, to reduce water loss in the process of supplying water. Meanwhile, encourage the sustainable use of recycled water and rainwater, and arrange local activities, so that consensus can be reached among various organizations and community. As a result, a community sustainability model can be established, and the spirit of water resources sustainability can be achieved. Establish a community sustainability model, and carry on the spirit of water recycling.



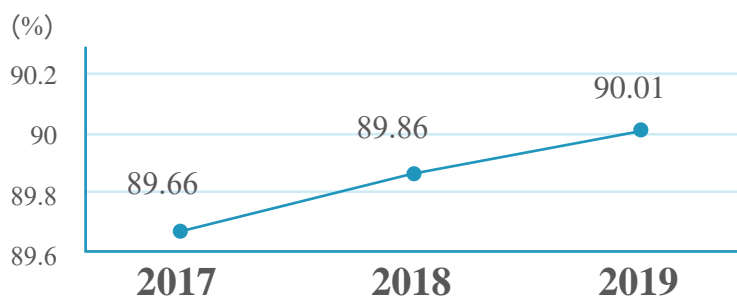
#### United Nations SDGs targets currently in effect in Taipei

- ▶ 6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all.
- ▶ 6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.
- ▶ 6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.
- ▶ 6.6 By 2030, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes.



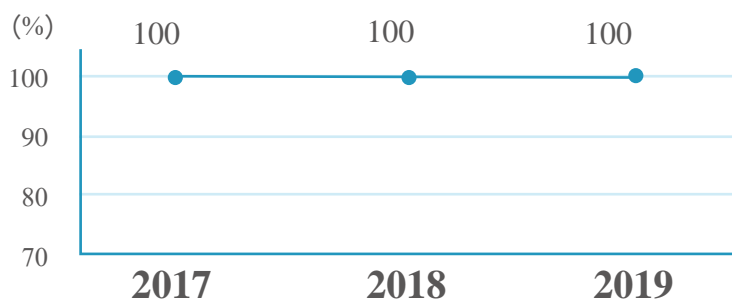
Utilization rate of water source from reservoir (%)

Target for 2030 : > 90 %



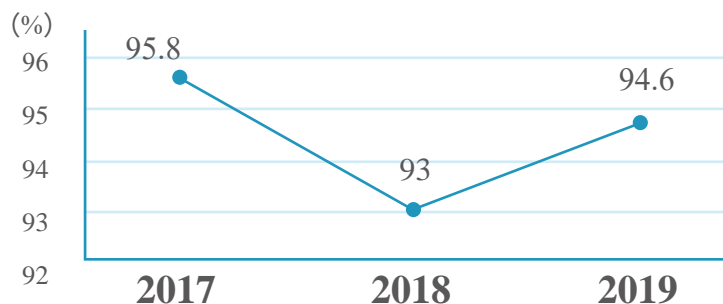
Qualification rate of tap water (%)

Target for 2030 : 100 %



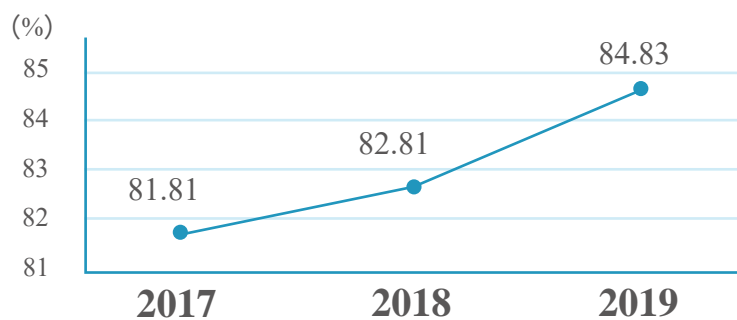
River biochemical oxygen demand in line with water classification benchmark achievement rate (%)

Target for 2030 : 95 %



Percentage of city population served by sewage collection (%)

Target for 2030 : 88.59 %





## Actions to create high quality water.

The main regulated water pollution sources are community sewer systems, medical institutions and tourism hotels (restaurants). To better grasp the discharge of pollutants by businesses and community sewer systems, continual pollution detection of regulated businesses and sewer systems will be enhanced, with regulated businesses auditing target rate of 100%. Make timely inspection of the quality of effluent water, and urge industries to implement the proper operation and actual declaration of sewage treatment facilities in order to implement water pollution prevention and control work.

Encourage citizens to participate in water environment patrols and river conservation, utilize

the power of the public to clean up rivers and reduce pollution, and expand water environment education. The water environment patrol team consists of 20 teams, with a patrol length totaling 105 kilometers. The areas include Jingmei River, Xindian River, Keelung River and Tamsui River; the river basin forms an intricate monitoring network. Regular river purification, river cleanup activities are held, so that citizens can get close to rivers and join in the water environment protection team. Additionally, improve the water quality of Shuimokeng Creek using the natural purification method for the artificial wetland at Guandu Nature Park. The volume of treated water is more than 2,500 CMD.



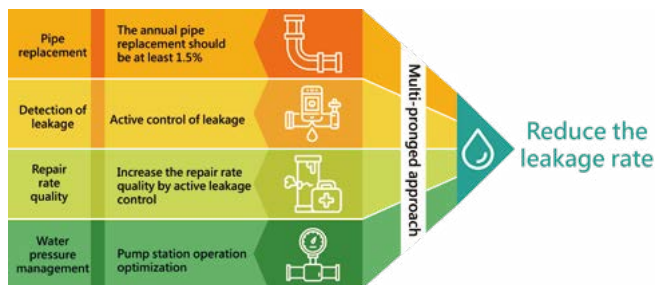
► Conduct river cleanup activities to join efforts in protecting the rivers.

## Provide stable tap water source.

The Feitsui Reservoir is an important water source for the Greater Taipei Metropolitan Area, with a population of six million people (including population of New Taipei City ). To ensure Feitsui Reservoir is able to meet water demand and to create an environment of no water shortage in Greater Taipei, the City has drafted the "Feitsui Reservoir Stable Water Supply Plan" and "Feitsui Reservoir Smart Management", to regularly conduct "analysis of the supply and demand of water source", "seasonal long-term reservoir water storage capacity estimation", "ten-day operation plan" works, in order to better grasp changing water conditions. Combine with the latest information technology, build a smart reservoir decision-making system to provide the technical assistance required in the operation of the reservoir, to strengthen the use of water resources and maintain stable water supply.

## Water supply pipe network improvement strategies.

In light of increasingly scarce water resources, in order to effectively use water resources to prevent system leakage and reduce water leakage rate, the City has planned a 20-year "water supply pipe network improvement and management plan" long-term strategy ( 2006-2025 ), divided into four executive stages. It is currently in the third stage ( 2016-2020 ), and the bridging to the fourth stage ( 2020-2025 ) is being initiated, which will comprehensively implement the community measurement method to control water leakage and improve outcomes.



- Four main cores for water leakage management.

Then, according to the pipeline replacement, water pressure management, active detection of leakage and repair rate quality recommended by the International Water Association ( IWA ) on amount of water lost in network, through multi-pronged approach, improve the water supply network system and gradually reduce the leakage rate.

Between 2006 and 2019, the length of replaced old pipelines totaled 2,173 kilometers, with an average annual replacement rate of 2.49%, exceeding the recommended value of 1.5% by the International Water Supply Association ( IWA ) every year. The water leakage rate also decreased from 26.99% in the end of 2005 to 12.71% in 2019, having a decrease of 14.28% in a 14-year period, averaging an annual decrease of 1.02%.

## Increase water pollution improvement rate.



- For the City's regulated water pollution enterprises, conduct regular inspections on the quality of effluent water.

Implement the water pollution source regulatory licensing system, and adopt methods including setting up waste (sewage) water treatment facilities, recycling, storage, drainage into underground sewer system and entrusted treatment for businesses. Permits must be applied in accordance with the law so to accurately grasp onto information of pollution sources. Regulated water pollution sources are required to regularly declare the operation of waste water treatment facilities, the inspection and power usage records of the quality and quantity of effluent water, and strictly implement terminal end auditing and control work.



## Upgrade the quality of tap water supply.

In order to improve the quality of tap water supply, a total of 95 water quality monitoring stations are set up with 24-hour continuous monitoring. Multi-barrier strategy is used on water purification, and set an internal control standard 10 times stricter than the "Drinking Water Quality Standards" to control the final water quality of water purification plants. Using precision online monitoring to ensure the clean water quality fully comply with "Drinking Water Quality Standards". From 2017 to 2019, the average finish water turbidity ranged between 0.02 and 0.03 NTU, which is far below the regulatory limit (2 NTU). The cumulative frequency of finish water turbidity under 0.1 NTU is between 99.1~99.8%, surpassing advanced countries cumulative frequency controlled goal of 95% for less than 0.1 NTU.

Water quality monitoring is conducted for water sources, raw water, finish water of purification plants, and clean water supply. Raw and clean water are sampled on an average of 480 times and 230 times per year and inspected 8,456 items, 4,262 items, respectively. Meanwhile, representative points are set in the water supply network according to population distribution conditions. Representative points are sampled and inspected monthly. Averagely sampling 7,519 times per year with 46,808 inspection items. 139 water quality inspection items are inspected by water quality examination laboratory, far exceeding the regulatory 68 items for drinking water quality standard. Over the years, inspection results have all met the Drinking Water Quality Standards. Relevant water quality inspection results are published on the website to achieve the transparency of water quality information.

## Increase the use of reclaimed water on a full scale.

After the sewage is treated and discharged through the sewage treatment plant, the City also carries out the spirit of circular economy and strives to increase the "effluent recycling" to increase the use of reclaimed water on a full scale to be used free of charge by external units and the public and actively encourage non-human uses such as watering of flowers and trees, cleaning of the environment, lower temperature on the surface of the roads by using reclaimed water. In conjunction with environmental education courses, the advantages of reclaimed water and the importance of reclaiming water resources sustainability are promoted.



The Dihua Sewage Treatment Plant and Neihu Sewage Treatment Plant produce 10,000 CMD and 20,000 CMD of reclaimed water respectively. After they are treated, they provide plant flushing, plant watering, street cooling, equipment cleaning and secondary level water usage for the public. Between 2017 and 2019, the average monthly reclaimed water usage volume was 227,394 m<sup>3</sup>, which is equivalent to saving about 370 million bottles of 600 c.c. water each month.

- Reclaimed water used to lower temperature on the surface of the roads



## Proper sewage treatment strategies.

The domestic sewage in the City is collected through the sewage system to the sewage treatment plant, where sewage is safely purified and treated until it meets national effluent standards, and discharged. In 2019, the fifth phase of branch network division project and user drainage equipment project for Taipei City's administrative districts was implemented. The sewage treatment population ratio has reached 84.83%. In the sixth phase of the project (2020-2023), the promotion of sewage pipeline connection project and lifespan extension of sewage pipelines project will continue, with the aim to comprehensively increase the sewage pipeline connection rate and service-life extension of sewage pipeline (79.45% in 2019), so that the sewage treatment population ratio of the City can increase.



► Post-construction of user drainage equipment project for sewage.

The goal for 2020 and 2021 is to increase 8,000 households per year, and periodically revise the target household takeover numbers of each year according to the actual situations, and to increase the sewage treatment population ratio.

## Host the Tianmu Water Trail Festival.

The Tianmu Water Trail Festival is an important festival activity in Tianmu community. Through the preparation process, the consensus between organizations in the Tianmu area and the community can be reached to deepen community identity and to build the ecological cultural circle of Tianmu. Develop a model of community sustainable management. The Caoshan Waterway system is integrated into various schools to develop Waterway themed courses to showcase results of the Water Trail Festival using posters to nurture students' attitude in cherishing water resources, to implement education of the local place and the love for water in order to achieve the goal of sprout education.



► The Tianmu Water Trail Festival.

## SDG7

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

The promotion of renewable energy and efficient use of energy is the key to sustainable energy. The City has installed a photovoltaic power system at the non-functioning landfill, which has transformed into an environmental restoration park. The landfill site has now become a recreational park for the public, by giving the old place new meaning and by developing renewable energy. Through subsidy programs to increase the incentive for the private sector to set up photovoltaic systems, the output capacity of green electricity increase annually. On the other hand, social housings have led the way in the setup of smart energy management systems, which are used to analyze and control household power usage, thereby increasing the efficacy of energy use. At the same time, an energy saving plan for disadvantaged families is promoted so to maximize energy conservation outcomes while taking care of disadvantaged groups. Stable power output and effective energy conservation bring about sustainable power consumption.

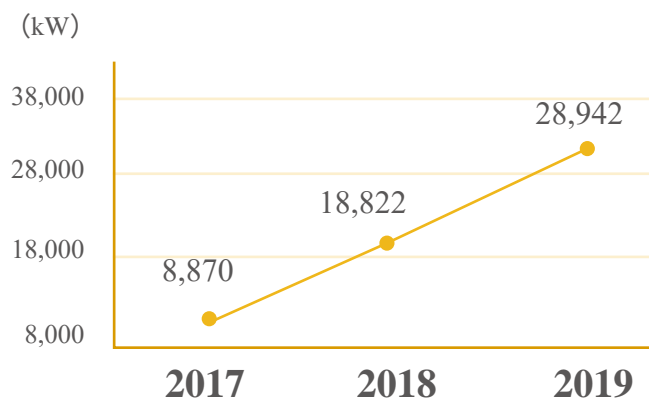


#### United Nations SDGs targets currently in effect in Taipei

- ▶ 7.1 By 2030, ensure universal access to affordable, reliable and modern energy services.
- ▶ 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix



Total installed capacity of photovoltaic power generation equipment (kW)  
Target for 2030 : 50,000 kW



## Build a smart energy saving Taipei City.

According to the City's electricity consumption statistics in 2019, the electricity consumption of the residential and business sectors accounted for 91.4% of the City's electricity consumption ( around 14.72 billion kWh, of which the service sector accounted for about 50.0%, and the residential sector about 32.2% ). Evidence proves that the promotion of power saving in the residential and business sectors is the City's top priority, thus "Taipei City Energy Conservation Promotion Task Force" is established. Using 2005 as the base period, reduce by 2% by

2020 in the short-term, and reduce by 5% by 2025 in the long-term. Through the collaborative efforts of all responsible units to implement power saving, strictly safeguard industrial and commercial inspection mechanisms, and assist offices, schools and communities in implementing power saving strategies. At the same time, promote the demonstration of social housing smart grid, rooftops of public offices and schools, installation of photovoltaic systems for private organizations. The relevant contents are as follows:

### 1 Organize Energy Conservation Leadership Award.

To help private enterprises boost the autonomous capability in energy conservation and encourage apartment complex to actively promote energy conservation, organize "Energy Conservation Leadership Award" to award and to openly praise energy saving units in the service industry and community residence with the intention of inspiring the industry to do the same and leading a social movement of low-carbon energy saving lifestyle. A total of 52 units had signed up for participation in 2019, and 18 winners were selected. The actual amount electricity saved was approximately 6.01 million kWh.

### 2 Equipment replacement.

Replace all public street lights into LED street lights, and collaborate with the central government in the promotion of power saving activities in residential and business sectors. Subsidize the service industry, hotel industry, medical institutions, transportation industry, office and schools, communities and households to replace equipment. Statistically, the residential and business sectors have saved about 192.52 million kWh of electricity. It is estimated that the City will have saved 250 million kWh of electricity in three years.

### 3 Social housing smart grid flagship project.

Through the nine locations of "D2 Xinglong Social Housing in Wenshan District", "Qingnian Social Housing in Wanhua District", "Dongming Social Housing in Nangang District", "Zhongnanduan Social Housing in Nangang District", "P2 Qingnian Social Housing in Wanhua District", "Minglun Social Housing in Datong District", "Ruiguang Social Housing in Neihu District", "iuzhangli ( A and B Blocks ) Base in Xinyi District", "Guangci Boai Estate in Xinyi District", with a total of 5,134 households of smart

social housing, to jointly construct a large-scale flagship smart grid. Create a new generation of smart social housing by introducing varying levels of energy management systems and advanced Information and Communication Technology (ICT) solutions as development visions. Improve the living and service standards of social housing, and through analysis management of the smart grid and energy management systems, energy efficiency can be improved. It is expected that households can save 10% of electricity and reduce peak loading by 20%.



4

### Taipei Chase the Sun project.

Through the four main objectives of "city-owned land, bidder-built houses", "public housing priority demonstration site", "increase number of private subsidies" and "smart grid, citizen powerhouse", continue to promote solar power in the City to achieve the goal of "advanced energy saving city".

In the private sector, to facilitate ease of subsidy application for the public, the City has set up consultation windows, and has entrusted professional teams to proactively seek regions of high-potential to install photovoltaic systems and to help with application and installation, so to accelerate the promotion of solar power. In the public sector, a total of 33 offices and 93 schools installed photovoltaic systems in 2019, producing

total of 24,139 kW. Adding to the 28,942 kW installed by the central government and private organizations, the estimated annual power generation is around 26.4 million kWh and decreases 14,076 metric tons of carbon, which is equivalent to the carbon sequestration of 36 Daan Forest Parks.

The goal is to install 50MW of photovoltaic systems by 2030, with expected annual growth of 2MW. Through public-private partnership and internal-external promotion, continue to take inventory of the City's idle spaces of various office and school buildings or properties while promoting private subsidization and citizen powerhouses and inviting experts and scholars to carry out field surveys to assess the City's potential for photovoltaic installations.



► Installation of 146.4kW at Wan Xin.



► Solar photovoltaic system installed in water.

## Energy saving strategies for residential buildings

In 2014, Taipei City Self-government Ordinance for Green Buildings had been issued and implemented, then from 2015 to 2017, relevant sub-laws and supporting measures were formulated.

The existing buildings located within the jurisdiction of the City that have obtained a five-or-more-year license and have not been listed as high-end additionally taxable residence by Taipei City Revenue Services, applications can be made by the management committee or representing person with diagnosis report made by the Construction Management Office or execution report proposed by a registered architect attached. Applications of green roof or improvements to green energy facilities are to be made during the acceptance period, then upon review approval by the review team, subsidies will be granted.

## Taipei City launches industrial and commercial energy saving counseling.

Through counseling and tracking efforts, toward users who are difficult to arrange for improvement projects or have complex technical levels, the City accurately provides information such as application for government subsidies to accelerate the replacement of energy-saving equipment, or introduce them to cooperate with ESCO<sup>7</sup> service providers to carry out energy-saving improvement projects and other information to help users implement their willingness toward improvement; In turn, they would organize energy-saving technology exchange seminars and energy management personnel training courses to boost the breadth and depth of energy-saving application technologies to further spread energy-saving effects.

As per Article 8 of the "Energy Administration Act" promulgated by the Ministry of Economic Affairs, up to 20 types of promulgated designated users shall be duly audited. Audit focus areas include notably the indoor air-conditioning temperature limit up to 26 degrees for public access to business premises where the air-conditioning shall not leak, and use of halogen bulbs and incandescent bulbs are strictly prohibited. Besides, by means of the promotion of energy-saving products in combination with hypermarket stores, 3C home appliance stores, home appliance dealers and other chain stores, the City tries by all available means to provide the motivation for implementing energy-saving measures.

## Community disadvantaged family's energy saving renovation service plan.

The City encourages households to purchase energy-saving and power-saving appliances. For economically disadvantaged families, the "Community Disadvantaged Family's Energy Saving Renovation Service Plan" was initiated in 2015, to offer free installations to replace old lightings with energy efficient lightings for listed low- and middle-income households through on-site requirement evaluations made by professional service teams. Not only is power saved, their electricity bills will also be reduced, so to extend the conservation of energy and take into account of social welfare. In 4 years, it has served 3,787 low- and middle-income households, replacing about 37,000 lightings and saving a total of around 1.54 million kWh of electricity.



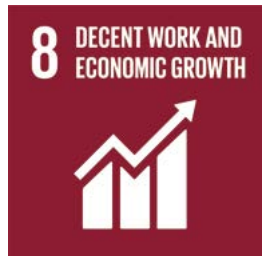
► Assist on replacing old lights for economically disadvantaged families.

<sup>7</sup> An energy service company (ESCO) is a company that provides comprehensive energy solutions to its customers, assist on making energy-saving plan for them. The savings in energy costs are often used to pay back the capital investment of the project over a five- to twenty-year period.

## SDG8

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

Utilize financing programs to stimulate the growth of startup companies and small and medium enterprises. Concurrently, encourage the procurement of environmentally-friendly products to reduce the impacts of the products on the environment. Assist business units in implementing occupational safety management via educational campaigns, inspections, and other mechanisms; establish an employ-friendly environment, and secure the safety and health of workers. Efforts to safeguard the safety and health of workers such as citizens, specific objects, migrant workers, etc. Achieve the goals "healthy workplace", "safe environment" and "zero occupational accidents", while improving the quality of the workplace and ensuring a healthy environment for industrial development.



#### United Nations SDGs targets currently in effect in Taipei

- ▶ 8.4 Improve progressively, through 2030, global resource efficiency in consumption and production and endeavor to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programmes on sustainable consumption and production, with developed countries taking the lead.
- ▶ 8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value.
- ▶ 8.8 Protect labor rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment.
- ▶ 8.9 By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products.
- ▶ 8.10 Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all.

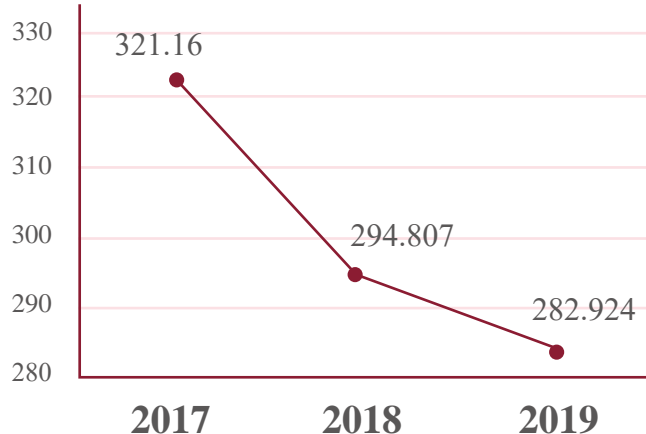




Taipei City foreign exchange earnings  
in tourism ( NT\$ billion)

Target for 2030 : NT\$ 403.2 billion

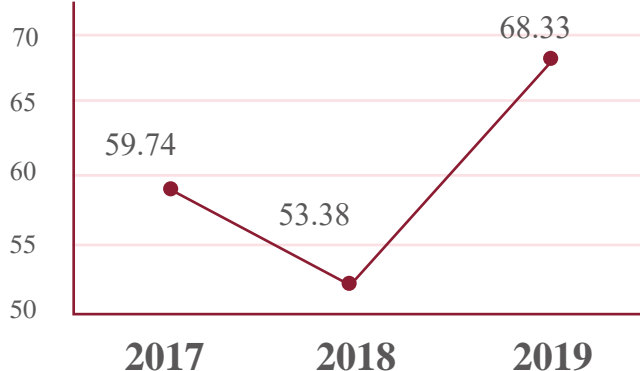
( NT\$ billion )



Employment rate (%)

Target for 2030 : 55.9 %

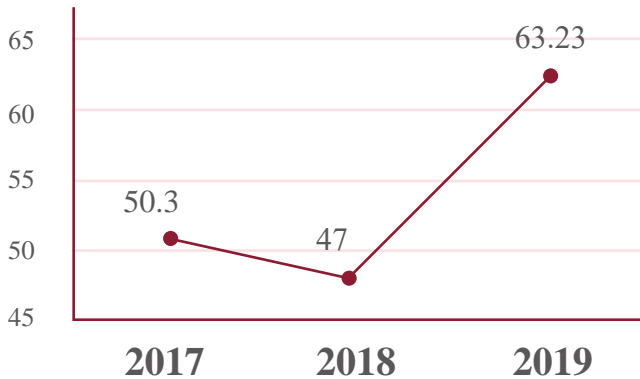
(%)



Matchmaking rate for specific target  
employment (%)

Target for 2030 : 48 %

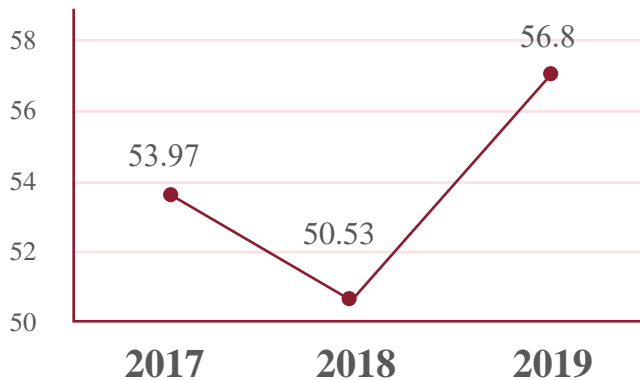
(%)



Employment rate of persons with disabilities (%)

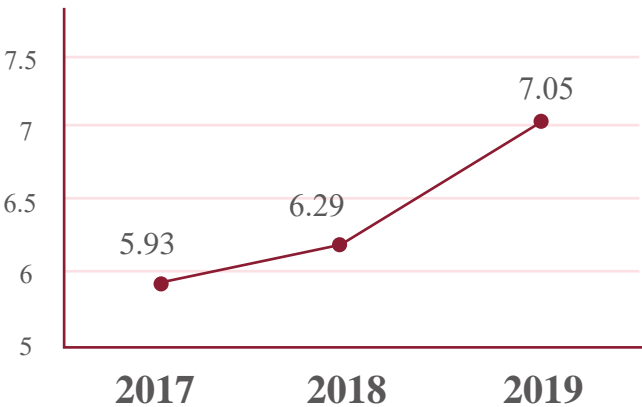
Target for 2030 : > 60 %

(%)

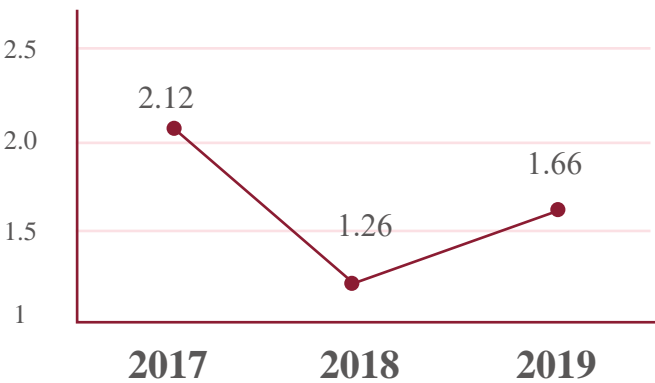




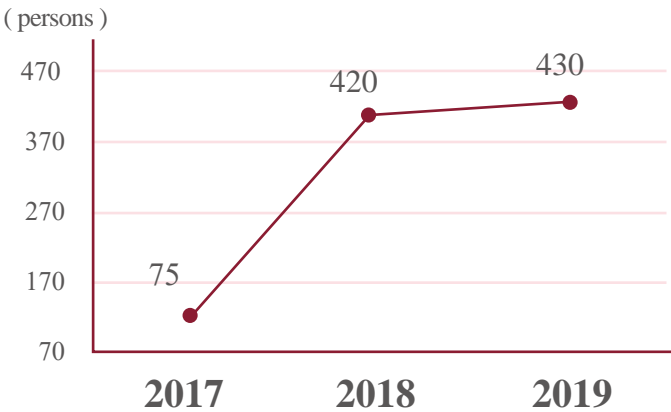
Workplace fatal injury rate  
Target for 2030 : 5.5



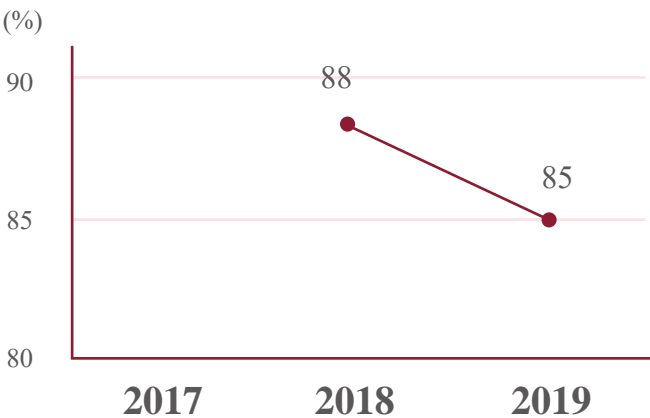
Workplace major injury rate  
Target for 2030 : 1.66



No. of foreign caregivers participating in  
skills training ( persons )  
Target for 2030 : 450 persons



Mitigation success rate of migrant worker  
dispute cases via coordination meetings  
(professional coordinators) (%)  
Target for 2030 : > 85 %



## Promote tourism industry.

In addition to adjusting the target customer base for the Chinese market and developing mainland business customers to Taiwan, also actively develop high-potential tourists from Europe, the United States, Russia, and the Middle East while cultivating the mature markets of Japan and South Korea, and collaborating with the new southbound policy, to expand the tourism market in the ten ASEAN countries and Muslims, in order to enhance the City's tourism image and attract global tourists to the City for tourism consumption and to build

a safe and friendly tourism environment. Irregular public safety inspections of general tourism hotels are conducted. To encourage hotels to achieve energy saving and carbon reduction, promote the reduction of energy consumption in hotels, increase electricity efficiency, subsidize hotels for the replacement of old equipment, and encourage the implementation of energy management. Electricity is saved nearly 10 million kWh annually. The principles of energy saving and carbon reduction are combined to realize the purpose of sustainable tourism.



► Filipino YouTuber Mikey Bustos films the tourism video in the City.



► Tourism promotion event at Malaysia's Tourism Expo.

## Assist innovating enterprises with financing loans.

Taipei City Government teams up with Taipei Fubon Commercial Bank Co. Ltd. and the SME Credit Guarantee Fund of Taiwan in helping small and medium-sized enterprises and young entrepreneurs with grants and funding, to foster development of the industry. From 2015 to 2019, a total of 1,786 cases had been approved, with an approved loan amount of over 1,528.02 million dollars.

## Regaining employment services for people with disabilities.

Private organizations are entrusted to the carrying out of the regaining of employment services for people with disabilities. In 2019, a total of 62 professional personnel from 13 organizations were entrusted to providing employment matching services for job seekers with disabilities, with an employment rate of 56.8%.



► Examine results of employment services and conduct evaluations on outsourced units.



## Strengthen employment counseling - promote lifelong careers.

Using the "case management service model", find out about the job seekers' academic and work experiences through one-on-one professional consultants at Employment Services Offices, and evaluate the employability and understand the employment difficulties and needs. Individuals with proficient employability are recommended suitable employment. Those with insufficient employability or who do not meet needs of the job market are recommended to participate in vocational training courses to develop a second set of expertise.

If the individual is willing to start a business, then entrepreneurship seminars will be arranged to increase entrepreneurial knowledge and skills. Entrepreneurial consultation services are also provided; through professional guidance of consultants, entrepreneurial difficulties will decrease and success rate will be increased.

For lifelong career planning for senior and middle-aged and silver-haired groups, silver-haired employment consultation stations are set up. Through continuous expansion of joint youth-elderly employment consultation stations, the young and the old alike can all seek lifelong career planning at employment consultation stations. New employment model of youth-elderly co-work and microtask are being tried out, in order to promote the re-entry into labor market for senior and middle-aged and silver-haired groups, so to successfully return to the job market and work healthily.

With statistics up to 2019, 54,108 newly registered job seekers had been accumulated, 36,972 job seekers were employed, with the employment rate of 68.33%; the number of newly registered specific target job seekers was 26,998, specific target employment was 17,070, with the employment rate of 63.23%.



► Establishment of silver-haired employment consultation station.

## Expand on-site employment matchmaking service.

Recruiting events are held for businesses in need to provide the public and employee-seeking companies with more refined and professional employment services. Through real-time matchmaking and interview channels with open and transparent salaries, job-seekers and employee-seekers can quickly matchmake. In 2019, 11 medium- and large-scale recruitment events and 415 small-scale events were organized.

For the employment of young people, middle-aged and senior individuals, youth-elderly themed job fairs are held to develop friendly enterprises willing to hire senior and senior and middle-aged individuals for suitable positions, to assist middle-aged and senior individuals in employment matchmaking. In addition, job fairs are combined with enterprise internships; through mock interview, resume inspection, career consultation services, provide internships experiences and full-time job opportunities in order to promote youth employment.

In August 2019, the "youth-elderly co-work to shine" job fair was held, totaling 5,357 attendances, of which the initial match rate of senior and middle-aged group was 45.7%. Then on December 7, the "senior and middle-aged mobilization" job fair was held, totaling 4,613 attendances, of which the initial match rate of senior and middle-aged group was 61.08%. Actively assist with the employment of silver-haired group, and through the above activities, propose the employment of silver-haired group to enterprises and encourage employers to consider the feasibility of employment.



► Youth-elderly co-work to shine job fair.

## Create a cross-generational workplace Management website.

To fulfill the needs of residents seeking jobs using electronic products, "Taipei Job Bank (okwork)" is implemented to provide comprehensive services through diversified yet one-stop window. Website functions are optimized each



- Taipei Job Bank (okwork website) intergeneration workplace services.

year to provide simplified processes for ease of public use via online operations. Through the website, methods, seminars, activity information, awards and subsidy measures are provided to implement age management. The data of actual enterprises with age friendly hiring measures are published, to encourage enterprises in increased employment of senior and middle-aged and senior labors, so to maintain industry competitiveness and productivity. In 2019, a total of 11,154,819 page views were accumulated.

## Implement the middle-aged and senior citizens vocational training experience camps and vocational training classed.

In response to the advent of an aging society, implement short-term employment (career transfer) experience camps, so that middle-aged and senior citizens can realize the characteristics of different industries in advance, so to assist in the adjustment of job search. And, for current workers or the general public looking for career transfer, middle-aged and senior applications. In 2019, the Vocational Development Institute implemented nine classes of middle-aged and senior individual employment (career transfer) experience camps with 147 participants; nine classes of middle-aged and senior individual priority vocational training courses with 180 participants (including 128 participants who are 45 years or older); outsourced nine classes of senior and middle-aged and senior individual priority vocational upgrading

courses with 270 participants (including 208 participants who are 45 years or older). Besides, in 2019, there were 1,280 participants aged over 45 years old in the vocational training programs, 1,221 successful trainees completed the training, and 848 graduated trainees were employed.



- Middle-aged and senior employment (career transfer) experience camp - easy snapshot of merchandises.

## Promotion of specific target employment.

Created the "Urban Guide Pilot Project" through cross-departmental collaboration between Department of Labor, Taipei City Employment Services Office, Department of Social Welfare, Department of Information and Tourism, Department of Cultural Affairs and Taipei Rapid Transit Corporation. On August 15, 2019, a press conference for urban guide launching ceremony was held, and thus far have assisted up to 10 homeless people participate in the project.

For senior and middle-aged and other specific disadvantaged job seekers, actively promote "job redesign" resources. In 2019, silver-haired

job hunters were assisted in the number of 20,494, and 12,776 became employed, with employment rate reaching 62.34%. Meanwhile, to alleviate the effects of physiological aging factors on work efficiency, collaboration with the Ministry of Labor was made to execute "promotion of senior and middle-aged job redesign plan", through improving workplace environment, work equipment or machineries, employment aids, improving work conditions or adjusting work methods and processes, to eliminate the obstacles in the workplace.

## Taipei City's deep-rooted 4-year occupational safety plan.

To urge businesses to value workplace safety, abide by labor laws and regulations, and actively implement occupational safety and health management, the number of occupational safety and health inspections reached 100% in 2019. Additionally, assist businesses to carry out education training by carrying out the "Occupational Safety

and Health College". Through idea sharing of instructors and teaching materials, build partnership relations with relevant associations, unions, businesses, schools, government offices and communities, to co-conduct occupational safety and health education trainings. In 2019, a total of 1,432 sessions were conducted with 73,528 attendances.

For improvements to the working environment, an occupational safety and health counseling group is established to help organize safety and health promotions, counseling and related activities of small and medium-sized enterprises within the jurisdiction of the City. In 2019, 490 counseling sessions were conducted for "indoor decoration and small construction sites" due to its higher occupational injury rates.



- Recurrent education training for occupational safety and health personnel in the construction industry in 2019.





► Host training programs for dementia care for migrant workers.

## Training courses and rights protection for migrant workers.

Set up an assuredness plan for employers hiring foreign caregivers. According to the needs of the hiring family, a professional team made of nurses and bilingual interpreters will conduct health management assessments for the care recipient, and provide one-on-one technical guidance and life care. Beginning from 2019, further enhance the understanding of behavioral problems caused by dementia for migrant workers to avoid occupational injuries, injuries incurred by care recipients, and to ensure the rights of employers and migrant workers.

At the same time, institutionalize the resolution meetings of migrant worker dispute cases. Regularly organize the recurrent education training of lawyer arbitrators, and discuss cases and regulation amendments to improve occupational abilities of lawyer arbitrators to increase reconciliation opportunities. Also, establish professional coordination SOP regarding disputed cases and include professional interpreters into the system to implement division of professional work, so to protect the rights of employers and migrant workers.

## SDG9

### Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.

To ensure that residents in the Greater Metropolitan Taipei Area are worry-free about water use, the City has actively implemented operations such as water and soil conservation, tree planting and afforestation, and storing clear water and releasing muddy water and drainage to extend the service life of Feitsui Reservoir. In terms of transportation, "shared, green, digitized and safe" are the visions for public transit. Through combining low-carbon, sustainable transportation and enhancing user convenience, provide "smart, friendly, convenient, and efficient" transportation services to the people. Encourage residents to take public transportation and reduce the usage of private vehicles. Furthermore, the City promotes paratransit buses and general taxis, also provide barrier-free transportation services to the elderly and people with disabilities or mobile impairments so that accessible transportation becomes more holistic, and social welfare will be realized, while residents with disabilities will be cared for at the same time. Reinforce water resources, transportation and social welfare strategies, in order to maintain the daily needs of the residents.



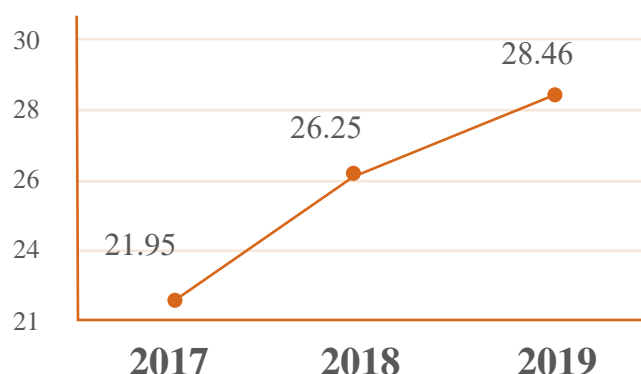
#### United Nations SDGs targets currently in effect in Taipei

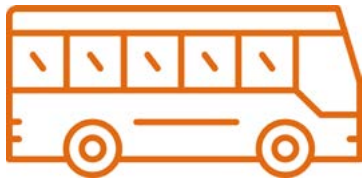
- ▶ 9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all.
- ▶ 9.C Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020.



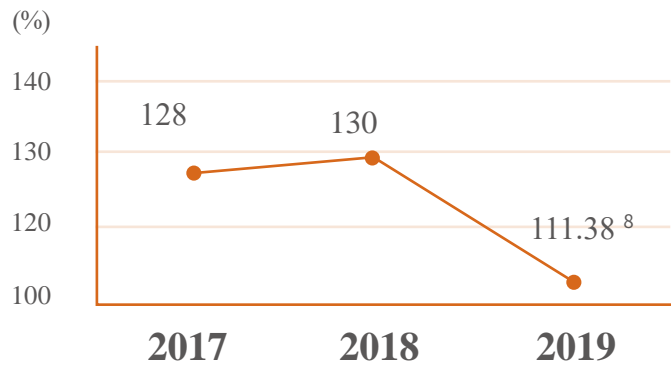
Bikeshare ridership ( million trips )  
Target for 2030 : 33 ( million trips )

( million trips )

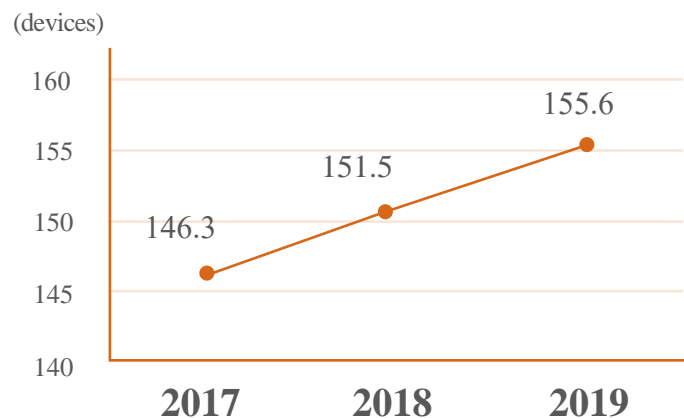




Public transportation usage  
for disadvantaged groups (%)  
Target for 2030 :  $\geq 100\%$



No. of people per 100 with  
mobile data devices (devices)  
Target for 2030 : 165 devices



## Encourage the elderly to take public transportation, to engage in active aging and promote social participation.

Discounts of 480 points (NT\$) per month are offered to residents over 65 years old and indigenous people over 55 years old with household registration in the City. Originally, they were only to be used for city buses and senior citizen taxis; since the end of October 2017, it has expanded to Taipei MRT, Maokong Gondola, public venues, YouBike, double-decker sightseeing buses.

To encourage active participation of elders in various activities and maintain a healthy life, the use was expanded to the Danhai light rail transit and district sports center facilities in 2019, so that they can make use of public transportation and recreational venues in the City and increase the convenience. In 2019, the usage rate was 124,911,564 times, representing a steady growth of 8.75% from 2018.

## Promote the opening of municipal public buildings for the construction of communication base stations.

Since 2014, the Taipei City Government has cooperated with the National Communications Commission (NCC) on the "Accelerated Promotion of Wireless Broadband Infrastructure" policy to promote the use of municipal public buildings for the construction of communication base stations. In 2019, a total of 33 installations were completed to maintain smooth communication, which currently ranks first in the number of local government installations.

<sup>8</sup> Index calculation of public transportation usage (%) for disadvantaged groups = delivery rate for universal taxi accessible transportation rides of the year x 50% + delivery rate for handicap bus rides x 50%. If delivery rate of the year exceeds original target value, then a number larger than 100% will appear.



## Efforts to improve pedestrian accessibility.

Taking into account the needs of people with disability walking on the road, the City has duly mapped out the pedestrian crossing lines exactly pursuant to the "The Regulations for Road Traffic Signs, Markings, and Signals" and the geometric conditions of the intersection roads with barrier-free ramps to connect the physical sidewalks and provide a friendly pedestrian environment.

## Subsidize transportation expenses for children of low-income families to reduce burden and stabilize schooling.

In compliance with Item 7, Paragraph 1 of Article 16 in Public Assistance Act, "Taipei City Low-income Household Transportation Subsidy Operation Instructions for Middle School or Higher Students" was drafted, and transportation expenses for middle school or higher students from low-income households were subsidized.

Transportation subsidies are on application basis to be applied for in each semester (for middle schools, each person is subsidized NT\$500 per semester; for those studying in local senior (vocational) high schools, each person is subsidized NT\$1,000 per semester; for those studying in senior (vocational) high schools outside the city, each person is subsidized NT\$1,500 per semester). A list of individuals matching application requirements will be made every January and August, and applications will be uniformly mailed to them, from which they can apply upon registration of the semester. The Department of Social Welfare will be responsible for the fee appropriation and write-off to reduce the burden on the public.

## Promote accessible transportation of wheelchair-accessible taxis and paratransit bus transportation services.

To implement social welfare policies and care for residents with physical or mental disabilities, promote paratransit bus businesses and wheelchair-accessible taxi services. The handicap bus provides point-to-point transportation services to people with physical or mental disabilities. After reservations are made via channels such as dispatch hotline, voice or Internet, the entrusted service company will arrange service vehicles and drivers according to each passenger's reservation information. The passenger pays 1/3 of regular taxi's fare, which will reduce the burden on people with disabilities. In 2019, the total number of wheelchair-accessible vehicles was 328, providing 647,444 trips in a year. The average monthly trips was 53,954, carrying about 98,700 passengers.

The wheelchair-accessible taxi adopts a wheelchair-adapted accessible design to provide barrier-free transportation services to the elderly and people with disabilities or mobile impairments so that

accessible transportation become more holistic. Since official operation in February 2013 until 2019, 332 wheelchair-accessible taxis had been subsidized to provide accessible transportation services, accumulatively serving 885,014 trips, of which 617,207 were accessible transportation trips, accounting for about 69.74%.



► Wheelchair-accessible taxi.

## Adequate and excellent public transportation service environment.

The City's green transportation development framework is based on the MRT with the bus as a supplement, and the use of bicycles and walking to complete the first and last miles of the service. Statistics as of December 31, 2019, the Taipei Metro had completed 136.6 kilometers of routes and 117 stations, with an average daily use of more than 2 million passengers; the bus system has a total of 14 private operators and up to 289 bus routes, with 1.3167 million daily trips; YouBike has a total of 400 stations installed (with each station serving up to about 350 meters in average service radius) and 13,072 vehicles, with an average daily use of about 78,000 passengers. To encourage citizens to use public bicycles, subsidization for the first 30 minutes of use is provided. The City also sets up 15 bus lanes to provide residents with more convenient public transportation services.



► Riding environment for public bicycles.

## Improving reservoir sediment and maintenance of proper dam facilities.

The key factor affecting the life of the reservoir is sediment, and soil and water conservation of surrounding slopes around the reservoir's storage area is an important task in the extension of the life of the reservoir and its sustainable use. Since 2003, the medium-term plan for soil and water conservation for Feitsui Reservoir has been initialized to strengthen afforestation. With one phase being four years long, four phases had been completed by 2019. To coordinate with operation strategies, dredging operations are carried out. At present, the cumulative sediment rate of the reservoir in the past years is only 6.62%, which is the lowest sediment of large-scale reservoirs in the country. The average annual sediment volume is 769,000 cubic meters, which is lower than the designed annual sediment volume of 1.136 million cubic meters; the average annual sediment volume in the past 10 years has been greatly reduced to

375,000 cubic meters, where life of the reservoir is extended and also water supply for residents of the Greater Taipei Area is secured.

For dam safety inspection and monitoring, in addition to prudent operation of the equipment in the maintenance and operation of the Feitsui Power Plant to ensure and strengthen operation efficiency of the plant and to maintain the hydraulic gate facilities. Scheduled overhauls of the gate are conducted, and dam safety monitoring instrument is also updated accordingly. In 2019, all 13 groups of dam plumbline were updated. It is planned to complete the update of 21 strong motion accelerograph stations near the dam area by the end of 2020 to ensure dam safety.

# SDG11

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

With building sustainable, smart, energy conserving, earthquake-resistant, accessible high-quality housings as the goal, continue to build social housings, create a new lifestyle and establish a model of living architecture. Provide convenient transportation services to improve air quality and reduce impact on the environment. Integrate diversified smart information system into public transportation to reduce riders' waiting time. Meanwhile, provide free barrier-free transport services or transportation subsidies to disadvantaged groups, so that they too can enjoy the convenience of public transportation. Along with the efforts to implement fire prevention tasks, promote the concept of "disaster prevention, reduction, and avoidance", compile the "Disaster Prevention Taipei Manual" and build up the awareness of disaster prevention for all citizens. Ensure the rights of all citizens, and create a city of sustainable environment and disaster-resilience.



### United Nations SDGs targets currently in effect in Taipei

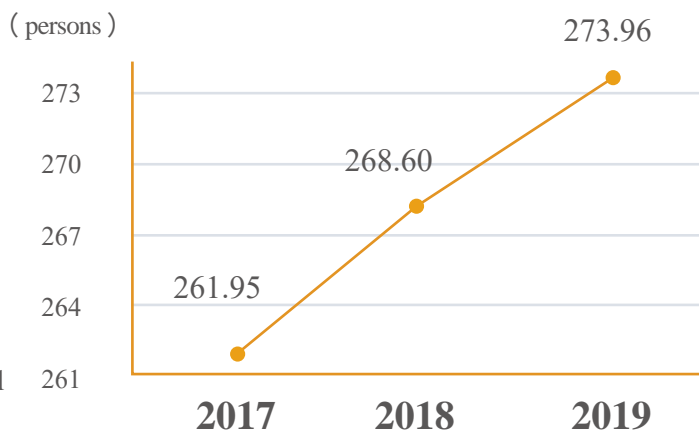
- ▶ 11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums.  
.....
- ▶ 11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.  
.....
- ▶ 11.3 By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries.  
.....
- ▶ 11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage.  
.....
- ▶ 11.5 By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations.



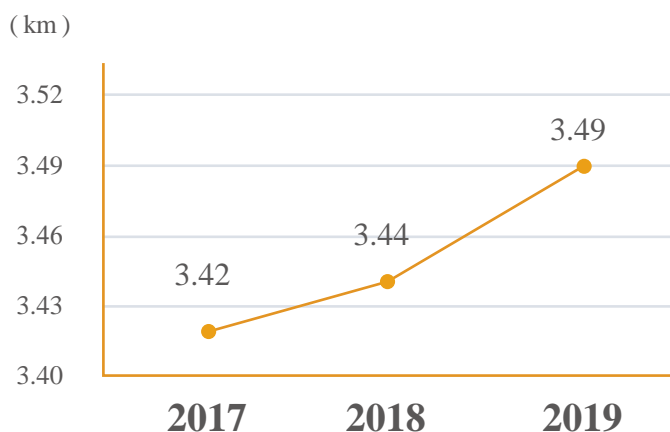
- ▶ 11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management.
- ▶ 11.7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities.



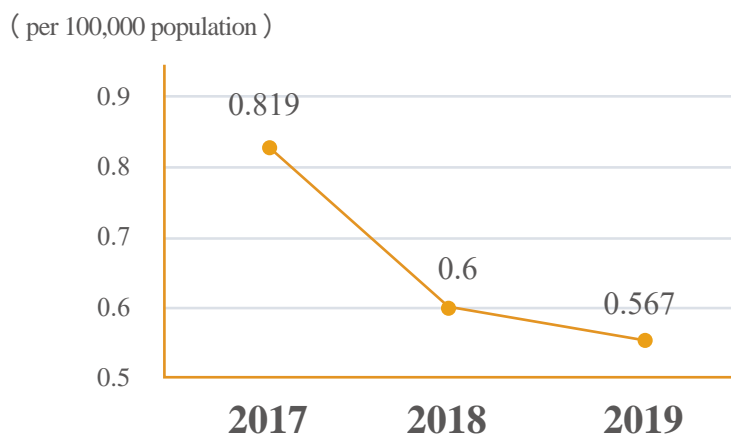
Average no. of public transportation trips by per capital  
Target for 2030 : 305 persons



MRT length available per 100,000 population ( km )  
Target for 2030 : 3.91 km

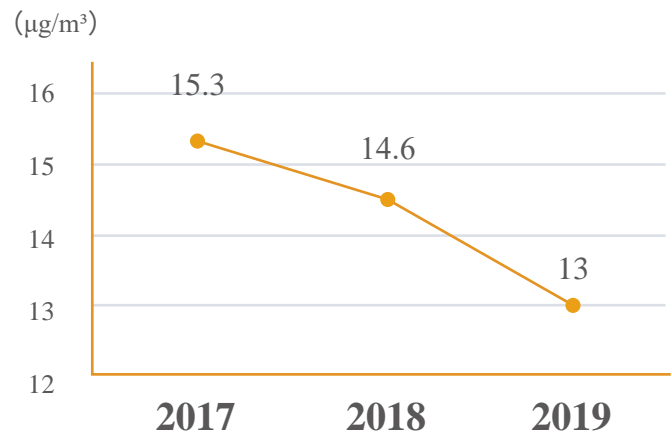


No. of fire deaths per 100,000 population  
Target for 2030 : 0.263 per 100,000 population

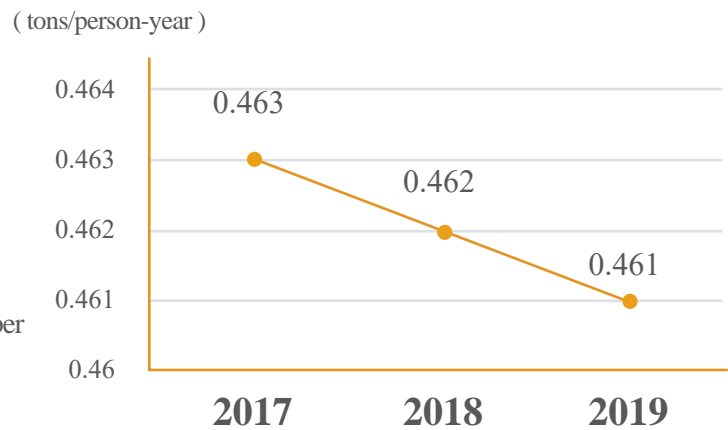




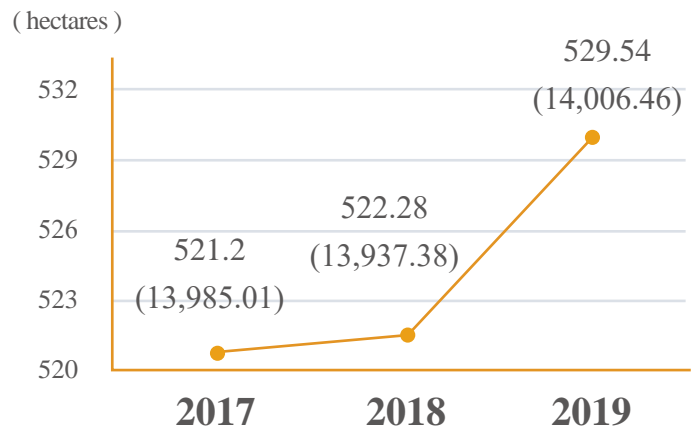
Annual average concentration of PM<sub>2.5</sub> (  $\mu\text{g}/\text{m}^3$  )  
Target for 2030 : 10  $\mu\text{g}/\text{m}^3$



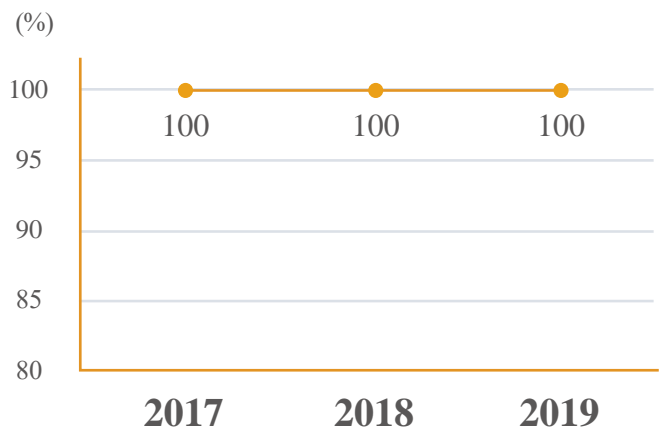
Total municipal solid waste generation per capital per year ( tons/person-year )  
Target for 2030 : < 0.45 tons/person-year



Green area per 100,000 population ( hectares )  
( Annual green resources area, hectares )  
Target for 2030 : 530.78 hectares  
(14,039.46 hectares )



Clearance rate of violent crimes (%)  
Target for 2030 : 100 %



## Social housing construction project.

Take inventory preferentially of social housing locations in the city, accumulate the number of social housing through multiple channels, schedule long-term construction plans and raising of funds. The goal of social housing is to build sustainable, smart, energy saving, earthquake-resistant, high-quality accessible housings, and combine public service spaces, to create a new lifestyle.

In 2019, 19 social housing projects were completed, 28 were under construction and pending construction, 4 were up for bidding and pending online, 6 were under planning, 62 were joint urban renewal real estates, totaling 19,876 households, with occupancy rate of 95%.

Furthermore, to safeguard the living rights and interests of underprivileged residents, the City initiated a citizen review method in 2016 to formulate a 35% minimum guarantee in terms of the household occupancy mechanism for social housing for residents of special status in the City, of which 10% was reserved for low-income households (economically disadvantaged residents) through lottery system; 20% was mainly allocated to ethnic groups that are difficult to rent in the community (socially disadvantaged) notably the elderly, the disabled, single parents, victims of domestic violence, grandparenting (inter-generation) education and the like, adopting Social Housing Comment System. In terms of the aboriginal ethnic part, the City takes into account their special historical status. Other than the 30%, the City provided an additional 5% guaranteed household through the lottery system. This mechanism was first put into practice in Dalongdong social houses in 2017 and was subsequently implemented in all social houses of the entire City to practice living justice.

## Construct convenient public transportation network.

To provide denser, deeper and more comprehensive transportation services, continue to promote "push and pull" strategy to encourage public to use green transportation. Among them, "push" is to improve the quality of public transportation and introduce usage of public transportation, including the promotion of MRT, Metro buses and transfer discounts, the implementation of public transportation All Pass Tickets and the reduced fares for transfer between Youbike and public transportation "pull" is to reduce the use of private-owned vehicles through private-owned vehicle management measures, including Neighborhood Traffic Environment Improvement Project, car parking fees, parking management of scooters in commercial districts. In the future, continue to promote MRT construction bus route optimization, YouBike 2.0, Neighborhood Traffic Environment Improvement Project 2.0, electric buses and low-floor buses policies, so that Taipei's transportation is more friendly and sustainable.



► YouBike 2.0.



► Neighborhood Traffic Environment Improvement Project.



## Promote environmentally friendly green transportation strategy.

### 1 Electronic buses.

Promote the replacement of old diesel buses with electric buses. In 2019, a total of 22 electric buses were operating on the roads. In addition to applying for subsidies for car purchase from the Ministry of Transportation and Communications, also encourage operators are encouraged to accelerate the promotion of the replacement of old diesel buses with electric buses via the implementation of mileage subsidies ( NT\$5 per kilometer ).

### 2 Shared transportations.

Motorcycle-sharing gradually changed the citizen's habit of using cars (purchasing cars) through different people using one scooter to reduce the ownership of private vehicles as well as the demand for parking in urban areas, and also provide the first and last-mile connecting transport for the public. Statistics as of September~December 2019, there were 500 car sharing vehicles in the City with up to 59,534 trips, 10,337 shared motorcycles with up to 1,903,141 trips. In 2019, there were 13,072 public bicycles in 2019 with up to 28,464,933 trips.

### 3 Electric vehicles.

In public parking lots, the City sets up charging poles and appropriately map out priority spaces to be reserved for electronic vehicles to create a friendly environment toward electric vehicles. As indicated by official statistics, up to 314 charging bays had been installed in public parking lots and institutional school parking lots as of 2019. Meanwhile, under mandatory demand, the City requested outsourced operators of parking lots to install a certain number of charging poles before the contracts expired to provide services for the public.

### 4 Public bicycles.

In order to encourage residents to use public bicycles. Since April 2018, anyone renting a bicycle from the City's YouBike using Easycard station will receive a NT\$5 transfer discount within one hour of transfer to the MRT or buses. Those who transfer within 1 hour from the MRT or bus to YouBikes within the jurisdiction of the City will also enjoy first 30 minutes for free. At the same time, since April 16, 2018, a NT\$1,280 30 days All Pass Ticket of has been launched. Pass holders can enjoy first 30 minutes for free when renting within the jurisdiction of Taipei.

## Intelligent management of transportation information .

The intelligentization of the transportation system can improve the convenience of the public in terms of travel. The development of the "intelligent transportation system ( ITS ) is actively promoted. The development of bus information has changed from traditional static information to dynamic information provision, even related data is transmitted to the OPEN DATA platform, to be provided for use in private industry applications, so that the public can obtain estimated arrival information ( smart stations, APP, web page, PDA, voice, etc. ) via a variety of channels.

The Intelligent Bus Stop Sign can provide individuals who have no mobile phones, no network service, or are unable to check through APPs to obtain real-time estimated bus arrival information, so to reduce public anxiety, and enable the public to choose to ride public transportation. Moreover, a smart bus station is defined by installing the intelligent bus stop sign. In the end of 2019, the city has completed the construction of 1,848 smart bus stations, with a construction penetration rate of 56%. It is expected to complete in 2,148 stations by the end of 2020.

## Source reduction and management of waste.

In response to the economic patterns of Taipei City, various source reduction policies and tools have been implemented. They include the implementation of "The Per Bag Trash Collection Fee", to reduce the amount of garbage and to increase resource recycling through economic approaches. The promotion of the policy of restricting the use of disposable plastic items, to strengthen the control of the use of plastic bags, disposable tableware, and take-away beverage cups; promote furniture recycling and repair, to extend the life of the item for circular use and keep the same volume of solid waste while lowering the annual targets year by year.



► Department stores and shopping centers in City are not allowed to provide disposable tableware to dine-in customers.

## Urban green space.

Through the construction and maintenance of parks, green spaces, plazas, children's playgrounds, riverside parks, and other reserved areas, protected areas, and scenic areas set aside by urban planning, the goal is to increase the area of green space by 3 hectares each year, and increase the per capita green space of the residents yearly in order to effectively achieve leisure and recreation, ecological protection, and reduce the urban heat island effect. From 2015 to 2019, the City's Jingqin No. 1 Park, Zhoumei Xian Zai Gang Park, Hsinhsin Park, Yong Chun Pi Wetland Park, North Gate Square, Taipei Travel Plaza, and Chien-Cheng Circle added about 486,339 m<sup>2</sup> of green space.



► Yongchunpi Wetland Park.

## Urban development with integrated use of city-owned buildings and properties (EOD).

In response to the aged population and the declining birthrate, take inventory of existing city-owned buildings and properties in the short term. At the same time, take survey of regional needs for public service facilities and functions, and convert idle or underutilized spaces into relevant facilities that are required by the region. In the mid-to-long term, when reconstructing old public buildings, surrounding public facilities and regional needs will be integrated, where a composite method will be adopted. The land area vacated by the original public facilities is converted into building of public service facilities and functions in response to the aging population and the declining birthrate so as to satisfy the original public facilities land area as much as possible to satisfy the substantial need.

## Promote clean air movement.

the City implemented of the "Taipei City Clean Air Action Plan" in 2016. The annual average concentration of PM<sub>2.5</sub> in 2018 was 14.6 µg/m<sup>3</sup>; in 2019, the "Clean Air Action Plan 2.0" was proposed, with the goal of reaching the World Health Organization's recommendation of the annual average concentration of PM<sub>2.5</sub> is 10 µg/m<sup>3</sup> by 2030. Through the three aspects of "low pollution, green transportation, and regional joint defense", various air pollution control actions were promoted to continuously improve air quality. The average annual value of PM<sub>2.5</sub> in 2019 was further dropped down to 13.0 µg/m<sup>3</sup>, which is an improvement of 11.0% compared to 2018. In the future, the City will continue and actively cooperate with the central government to improve air pollution and to promote relevant reduction measures.

## Mountain road quality improvement.

As society and economy change, the function of mountain roads has gradually shifted from the promotion of transportation and development in agriculture to a transportation service for the public to engage in leisure activities and get close to mountains and forests. Therefore, besides maintaining the safe and convenient transportation function, the goal of improving and maintaining mountain roads is to create comfortable, beautiful and pleasant leisure spaces in order to improve the overall quality of mountains so to provide the public with a high-quality mountain-friendly environment.

For the management of mountain roads, in addition to the annual budget, the general maintenance and emergency disaster rescue matters such as the improvement of road surfaces, update and improvement of slopes and related facilities, and maintenance of landscaping. To improve the rest value of scenic areas along mountain roads, plans are made to improve the landscape environment of mountain roads, and integrate local features into road-related designs to enhance the overall rest quality of mountain roads.

## Cultural heritage protection.

To protect cultural heritage, set up a dedicated management authority to carry out the restoration and reuse of cultural heritage and the operation, and promotion of the project of Old Houses Cultural Movement Plan, which establishes a matching platform. Through the counseling, subsidies and assistance of the authorities of cultural heritage to the manager to submit management and conservation plans, restoration and reuse plans and relevant review matters, the problem of the City's unused cultural heritage, vacant spaces and decaying properties causing unkempt environment and hotbed for crime can be solved. This will gradually improve the cityscape, and achieve sustainable preservation of cultural heritage and enrich the cultural charm of the City.



► The project of Old House Cultural Heritage Movement - No. 84 and No. 86, Jinghua Street.

## Low-income Assistance Program

In the City, the poverty population ratio has remained at 1.70% during the past five years. Statistics as of 2019 indicate that, in the City, there were a total of 21,123 listed low-income households with 44,984 people (1.70% of the City's total). In accordance with the Social Assistance Act, the City provided low-income families and children living below the poverty line with living allowances, transportation subsidies for children of junior high schools and above, student living subsidies for those of 18 years of age and above amidst schooling; maternity subsidies, pregnancy nutrition subsidies, three-Festival condolence allowances, living subsidies for the physically and mentally

disabled people and living allowances for the middle and low-income senior citizens. In the meantime, in combination with education, health, housing and other resources, we provide poverty-stricken people with complex needs such as schooling, medical treatment, employment, and maintenance support so as to help them maintain the basic living functions in the underprivileged families to help safeguard dignity of those underprivileged people. Moreover, in order to strengthen the toward the underprivileged. The City renders handy supports toward the poor, measures for poverty alleviation and self-reliance, and promotion of employment to implement thoroughly warm social assistance and care.



## Fire prevention.

### ◆ Strengthen fire safety management in public places.

The Fire Department, Construction Management Office, Office of Commerce and other units form a joint inspection team to carry out public safety spot checks of business premises, and strengthen fire safety equipment, maintenance declarations, flameproof labels and fire prevention management in various places. Thanks to such sound efforts, the City successfully strengthened the three-level quality control of building public security (i.e., first-level quality control-independent management and inspection by the industry, second-level quality control-routine inspection by the authority management agency, and third-level quality control-municipal government joint inspection).

### ◆ Establishment of a joint audit mechanism for construction, management and fire protection.

In terms of an application for construction licenses for additions, alterations, and constructions, as well as alteration of use and interior decoration permits, an applicant shall reach a certain scale for public use in accordance with Article 13 of the Fire Protection Act and Article 13 of the Enforcement Rules of the Fire Protection Act. Accordingly, before the construction permit is issued by the Taipei City Construction Management Office, the applicant should formulate a "fire protection plan during construction process" and submit the "fire protection plan during construction process" to the Competent Fire Squadron of the administrative district under its jurisdiction before the construction permit is issued by the Architects Association. Whenever the aforementioned permit for use gets involved in a review of the illustrations of the fire safety & security equipment & facilities, the review process shall be conducted in combination.

### ◆ Hold public safety supervision meetings.

In order to coordinate and supervise fire safety management, building safety management, specific purpose business management, health safety management, occupational safety and health management and campus safety management, the overall implementation of public safety activities and work items, the City's Public Safety Supervision Committee hold meetings at least once every two months, and experts and scholars are invited to attend the meeting. By regularly reviewing the deficiencies and tracking and controlling of matters needing urgent improvement, to improve the execution performance and to safeguard the safety of people's lives and property.

### ◆ Fire prevention promotion

For areas or specific places where fires occur frequently, increase the frequency of visit, cooperate with communities in different activities, and conduct interactive key announcements in the form of stalls or fixed-point booths. Also, to expand the effectiveness of public education, to achieve the purpose of popularizing the concept of disaster prevention, with the goal of prevention, reduction and response of disaster, the "Disaster Prevention Taipei Manual" manual was prepared to strengthen the awareness of the disaster prevention of all citizens in an in-depth yet simplified way.

### ◆ Promotion of the installation of residential fire alarms, and strengthen residential fire safety

The Fire Department, in conjunction with the civil affairs system, has comprehensively promoted the installation of residential fire alarms, compile procurement budget, along with private charitable organizations, to donate residential fire alarms. In 2019, 394,095 residential fire alarms were installed, and an accumulated 356 cases of successful evacuations when the fire set off the alarm.

The "Taipei City Fire Prevention and Autonomy Regulations" was amended, and was implemented on December 23, 2019, added new regulations stating residential use rental buildings, Class A places and the management of designated places are required to install residential fire alarms. Violators will be notified to make improvements within given time; those who do not will be fined.

# SDG12

## Ensure sustainable consumption and production patterns.

A city is a hub where the people and the economy congregate. It consumes 60~80% of the world's energy and produces 70% of the waste. It is also the main source of greenhouse gas emissions. With financial growth at the City's core, to maintain long-term development of the city and to create a livable living environment, the public sector took the initiative to begin cross-departmental collaboration, and proposed a plan to realize circular economy called "Circular Taipei Implementation Plan".

By establishing key points "disposable and melamine tableware ban" and restriction on single-use plastic products, the public are encouraged to bring their own reusable shopping bags and tableware. In turn, the promotion of self-paid plastic shopping bags and designated garbage bags is a strategy one of dual-use shopping bag, hoping to reduce the use of plastic bags. Create food bank services to realize the goal of sustainable consumption. Start an exchange platform for unused foods at public markets, where unused ingredients of the day can be freely donated. Then match the unused ingredients with disadvantaged families, where its purpose is maximized. With cross-disciplinary collaboration between the public and the private sectors, a sustainable circular city can be created.



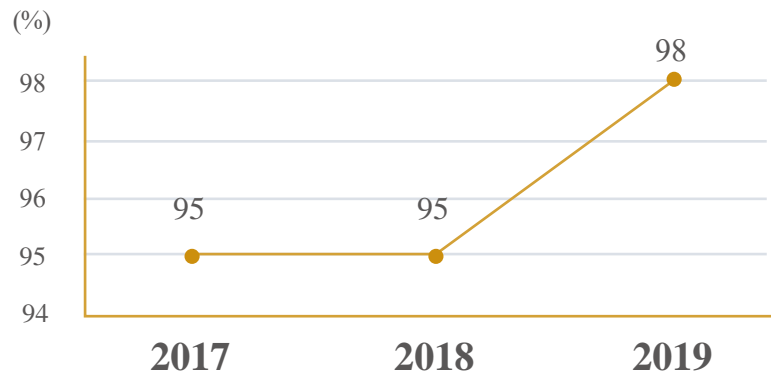
### United Nations SDGs targets currently in effect in Taipei

- ▶ 12.1 Implement the 10-year framework of programmes on sustainable consumption and production, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries.
- ▶ 12.2 By 2030, achieve the sustainable management and efficient use of natural resources.
- ▶ 12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.
- ▶ 12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities.
- ▶ 12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature.



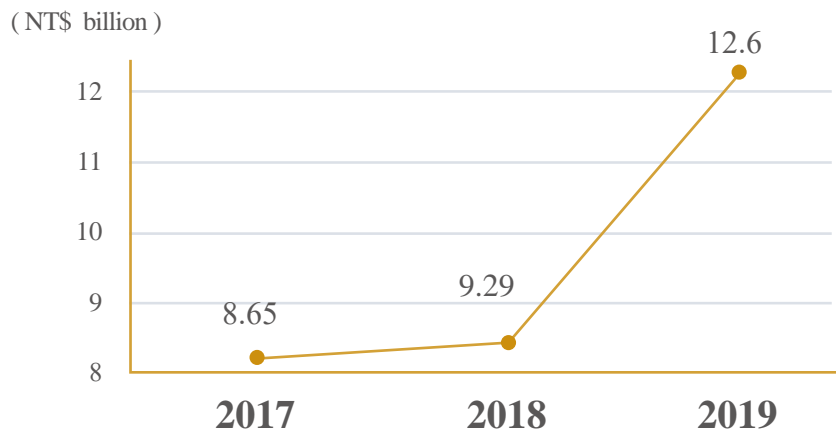
Green product procurement designated by government offices: requiring the procurement of first level environmental label (%)

Target for 2030 : 100%



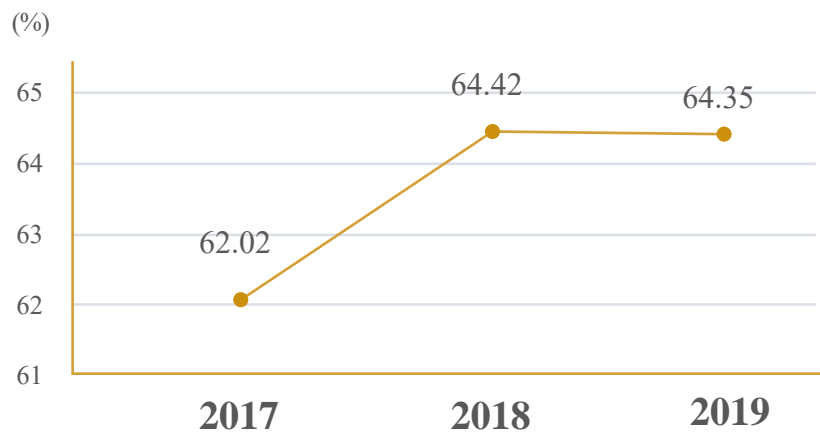
Declaration cost of green procurement of private enterprises and organizations (NT\$ billion)

Target for 2030 : NT\$ 14 billion



Resource recovery rate (%)

Target for 2030 : 66.1%



## Promotion of second-hand book exchange platform.

By promoting the concept of source reduction and resource recovery, the lifespan of books can be extended to help the disadvantaged. The first book sharing platform was set up in Neihu in 2013 called Yanhui Library. A website was set up in 2015, and was update in October 11, 2019, to allow the public to make applications online to reinvent the value of used books and to provide free books to help disadvantaged students to learn new things. In addition, the promotion is continued, with more enterprises, schools, public welfare organizations and citizens becoming willing to donate second-hand books, so that the collection of Yanhui Library continued to increase.



► Yanhui Library website.



## Disposable tableware ban.

Witnessing the abuse of disposable and melamine tableware, harm has been done to the environment and health risks are affecting the public. In order to achieve waste reduction, to save energy and reduce carbon, to protect the environment, and to safeguard the health of employees, teachers and students, and visiting guests, the City government has promoted the ban of disposable and melamine tableware in the office buildings and campuses of various offices and schools. At the same time, the key points of "Disposable and Melamine Tableware Ban" are implemented by these offices and schools. In 2019, the numbers of paper containers and plastic containers reduced by 82% and 66% respectively. More than 38 markets, 13 night markets, 29 colleges and universities, 27 central authorities and 117 outsourced venues have cooperated with the

implementation, and 178 enterprises have responded. In addition, in order to continue to reduce the use of various types of disposable tableware. The Environmental Protection Administration in August 8th, 2019 amended and announced "Objects, Means and Date of Restricting the Use of Disposable Tableware", stating that department stores, shopping centers and hypermarkets (chain convenience stores and fast-food chains not included) cannot provide disposable tableware of all material for dine-in customers. The 54 department stores, shopping centers and 13 hypermarkets or megastores in the City have begun the implementation since January 1 and May 1, 2020 respectively. Violators will be fined between NT\$ 1,200 and NT\$ 6,000 in accordance with Article 51 of the Waste Disposal Act.

## Waste management policy.

Municipal solid waste refers to waste generated from households, businesses, small businesses, office buildings and institutions (such as schools, hospitals, government buildings), but does not include business waste from municipal wastewater treatment and municipal construction waste. In order to promote the sustainable recycling of materials, relevant waste reduction and resource recycling policies are promoted to encourage the conservation of natural resources and reduce disposal load of the waste. However, in the recycling process, some energy consumption and environmental impacts cannot be avoided. As a result, waste reduction is also implemented through relevant administrative measures with continued efforts towards protecting natural resources.

In response to the economic patterns of Taipei City, to continue to attract commuting workers living outside the City and with frequent international activities and development of industries, in addition to the aforementioned promotion of plastic ban, dual-use shopping bag, disposable tableware ban, these following source reduction policies and tools are also in place, to ensure that solid waste does not increase.



- Taipei City government bans the use of disposable and melamine tableware.

## Waste management policy of Taipei city:

1

**Continue the implementation of Pay By The Bag Trash Collection:**

**Use economic incentives to encourage citizens to reduce the amount of garbage and increase the amount of resources recovered.**

2

**Repair and reuse household items and source reduction:**

**Recyclable furniture, bicycles that can be repaired and reused are simply repaired and sold at auction to the public for reuse.**

3

**Business waste management:**

**Timely adjust the cost of entering waste into the incinerator, and at the same time establish a business entering factory control center, and establish a source management of business waste and private waste management companies to achieve the goal of business waste reduction.**

## Improve resource recovery rate.

The City's implementation of Pay By The Bag Trash Collection and waste sorting have achieved remarkable results, and have been recognized internationally and has received the "Asia Waste Management Excellence Awards".

Strengthen students' self-recycling concepts through organizing appliance recycling and inspection activities of college and university graduates. To respond to the City's unique living patterns, counselings and seminars are arranged through community engagement to address the importance of waste sorting. Also, collaborate with enterprises on electronic recycling to guide people get started on recycling; reusable shopping bag recycling boxes have been installed in order to promote a plastic-free market, and in newly established public markets, promote the eggplant bag rental machine, all of these are to reduce the amount of waste and to achieve plastic reduction. For recycling industry, promote the digitalized management of one site one card inspection to decrease the industry's

negative perception, as well, set up green instructions for large-events, so to reduce the environmental impacts from large-scale activities. In addition to the 18 existing recycling labels in five languages, in order to strengthen resource recycling, to enhance resource recycling promotions, illustrated bilingual promotion leaflets for waste sorting by day and by type are designed, to make recycling easy for citizens.

Continue to promote various improvement measures, implement source reduction, expand sources recovery, and promote sustainable recycling of resources. Cooperating with the Environmental Protection Administration to handle the collection of recyclable resources, the Happiness Recycling Stations and the door-to-door collection of resource care and the like. The official statistics indicate that as of 2019, the resource recovery rate of Taipei City has increased year by year, say, up to 64.35% by 2019.

## Reduce leftover food waste.

### 1 Love meal plan.

Combined with private donations, the love meal supply stations were established in 2009. Social welfare centers cooperated with charitable stores ( i.e. lunch box stores, noodle shops, traditional snack bars ) in the area. Meal Vouchers made by social workers are given to disadvantaged families in need, where they can go to the stores and exchange the voucher for a hot meal. Social workers will regularly retrieve the vouchers from charitable stores for write-off, and pay the stores using donations.

### 2 Goods bank plan.

Given that the majority of the income of disadvantaged families is used to pay rent, utilities, childcare fees and education fees, many disadvantaged families have difficulty in paying for meals. Therefore, the City government established a Goods bank in 2011 with 22 storage locations, receiving donations of goods and money donated by private organizations, companies and enterprises and individuals. The main items are food (such as noodles, oatmeal, supplemental drinks, milk powder ) and daily necessities (such as diapers, toiletries ). Upon evaluation by social workers, the goods will be sent to disadvantaged families in need.

### 3 Food exchange platform.

To respond to environmental protection and not waste of resources, a "food exchange platform" was established in July 2016 to encourage stall vendors to donate freely the remaining food ingredients of the day. Then match unused ingredients with social welfare units serving the elderly, the physically challenged, women and children. These ingredients are picked up from the market during certain times, and then meals for these people are prepared by the social welfare units, or are brought to families in need upon evaluation by social workers. Currently, seven public markets have joined in for the promotion. Further, in 2019, Taipei Agricultural Products Marketing Co., Ltd. also donated fruits and vegetables.



► Handing out of supplies at Zhongshan Social Welfare Center Goods Bank.

## Enforce plastic ban and dual-use shopping bag.

In 2018, the Environmental Protection Administration expanded the restrictions on the use of plastic bags for shopping. A total of 14 categories of businesses are not allowed to provide free plastic bags for shopping. The City simultaneously promoted the dual-use shopping bag. Hypermarkets, supermarkets and convenience chain stores can only sell "environmentally friendly dual-use bags" to reduce the use of plastic bags. At the same time, strengthen the posting of publicity announcements in the sales outlets, and advocate "Don't Forget Plastic Bags: bring your own bags, rental deposit bags and dual-use shopping bags" so that the public will give priority to bringing their own reusable bags.



## Promote the concept of sustainable use of resources and give priority to environmentally friendly products.

### 1 In the public sector.

The City government agencies preferentially purchase environmentally friendly products to encourage businesses to save on resources or reduce environmental pollution in the process the procurement of raw materials, product manufacturing, sales, use, and waste disposal, to reduce the impact on the environmental. The City government also assist with environment protection work of waste reduction, resource recovery to improve environmental quality.

In order to let government colleagues better understand green product procurement and procurement operations, the "procurement and operations manual for Taipei City Government and affiliated offices and schools" is issued annually. On June 9, 2019, the "Taipei City Government promotion plan for sustainable green procurement" was published with the hope that through the manual, assistance may be provided to colleagues in the promotion and implementation of green procurement. A total of 2 green procurement workshops were held in 2019. The number of participants from various offices and schools was 142. Online learning ( i.e. Taipei e-Campus ) is encouraged, to enhance the knowledge, skills, attitudes and behavior of choosing environmentally friendly products, to improve the green implementation rate. The amount of green purchases made for designated projects in 2019 reached NT\$1,003.67 million, continually showing steady growth.

### 2 Private enterprises and organizations.

Since 2017, promotion of Environmental Protection Administration polices to promote the implementation of green procurement plans for private companies and organizations. With the incentive to create green business opportunities and enhance corporate image, private companies and organizations are assisted with the implementation, as well as the declaration of the annual green procurement budget. Counsel relevant manufacturers to apply for environmental protection labels, to increase the market share of green products, to encourage consumers to purchase green products, and through relevant activities such as promotion activities, improve public recognition of green consumption and awareness of environmental protection labels, and then give priority to procurement of green products.

In 2019, a total of two green procurement declaration sessions for private enterprises and organizations were held, to provide as per needs of private enterprises and organizations with counseling, so that private enterprises or organizations can understand the declarable labels and related products, and successfully make the declaration. In order to encourage private enterprises and organizations to actively promote green procurement, a session of

"Taipei City Private enterprises and organizations 2019 green procurement and Environmental Labeling Awards" was held on November 18, 2019. A total of 65 businesses have received recognition.

In 2019, the green procurement declaration amount for private enterprises and organizations reached 12.6 billion; the targets for 2030 and 2050 are set at 14 billion and 18 billion respectively which virtually implements and promotes the concept of green procurement.



► Promotion of priority procurement of environmentally-friendly products.

# SDG13

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

Influenced by advanced urban development and climate change, all metropolitan cities in the world are facing floods, heat waves, storms, droughts, and other water related disasters and challenges. Extreme climate is not only a great threat to people's lives and properties, it also affects the sustainable development of cities. Accordingly, by creating a sponge city to effectively regulate the microclimate in the city, it can also reduce urban heat island effect; promote Garden City and advocate the concept of food and agricultural education, and combine them with green transportation, green energy, and energy saving strategies. Promote the goal of mitigation and adaptation to climate change, then the vision of a resilient city with climate-safe will be achieved.



### United Nations SDGs targets currently in effect in Taipei

- ▶ 13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.
- ▶ 13.2 Integrate climate change measures into national policies, strategies and planning.
- ▶ 13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning.



Annual reduction rate of greenhouse gas emissions compared with 2005 (%)  
Target for 2030 : 25%

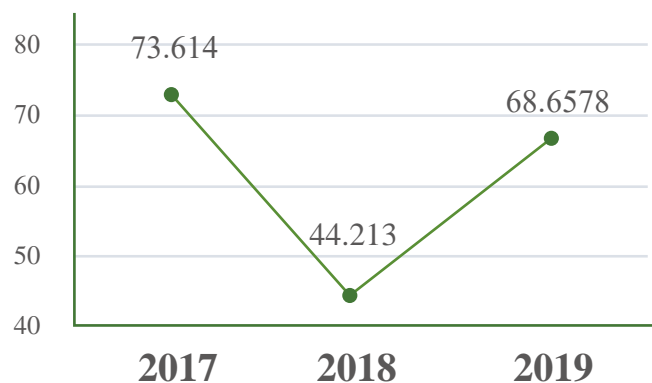




Amount of estimated damage due to natural disasters ( NT\$ million)

Target for 2030 : NT\$ 62.162 million

( NT\$ million )



## Taipei City area disaster prevention and relief plan.

To realize the vision of "livable and sustainable city", establish a city of "disaster resilience" and "environmental sustainability", the City has drafted a Taipei City area disaster prevention and relief plan which will be used as comprehensive disaster prevention planning guide, continue to strengthen disaster risk management.

Given the characteristics of disasters over the past years, the City also took reference to the "Sendai Framework for Disaster Risk Reduction 2015-2030" to check and examine the City's various policies and results. In 2019, by means of "Propose Disaster Risk Reduction Targets", "Understand Disaster Risks", "Managing Disaster Risk with Disaster Risk Governance", "Invest in Disaster Reduction Work to Enhance Disaster Tolerance", "Enhance Disaster Preparedness to Strengthen Response Work, and achieve the Goal of more Disaster-resistant Reconstruction during the Reconstruction Process", "With Regular Evaluation and Implementation of Work Items and a Mechanism for Public Reporting of Progress" to ensure that the established plans would be consistent with the goals and indicators in the Sendai Framework for Disaster Reduction.

## Strengthen measures related to disaster prevention and mitigation.

In response to the ever-increasing climate change, continue to simulate and analyze the risks of potential situations of various disasters, and consider the impact of climate change, set the conditions according to the scale of the disaster, formulate the annual goals of the city and key disaster prevention work items for decision-makers, the general public and high-risk communities for reference, through multi-channel advocacy, to adopt the most efficient way of education for disaster risk communication, so that the public can understand the disaster risk of the environment. Through the overall urban disaster prevention planning and disaster evacuation sites and route planning, the use and management of land disaster reduction and various disaster prevention facilities (such as retaining walls,

dykes, underground rain channel, water pumping station ) are inspected regularly and patched accordingly. Review approaches periodically, formulate SOPs and inspection lists for various operations, review disaster prevention policies anytime, and continue the improvements to ensure the implementation of disaster prevention and relief work.



- ▶ Disaster prevention information website provides water information for the public to enquire.



## Disaster recovery.

In order to effectively implement the post-disaster recovery process to ensure the safety of people's lives and property and the sustainable development of the city. The City has formulated a post-disaster recovery plan and standard operating procedures, necessary post-disaster financial measures, assistance and compensation for disaster victims, resettlement for victims, reconstruction of infrastructure and public facilities, recovery of environment for post-disaster relief, price stability of merchandizes, and post-trauma psychological treatments and other rehabilitative items.

In addition, in order to accelerate the implementation of post-disaster recovery and reconstruction plans, to consider the complex cross-departmental collaboration of post-disaster recovery and reconstruction work, and increase the effectiveness of post-disaster recovery and reconstruction work, the "Taipei City Post-Disaster Recovery and Reconstruction Program" was drafted.

Furthermore, in order to deliver post-disaster recovery and reconstruction, depending on the scale and needs of the disaster, according to Article 37 of the Disaster Prevention and Protection Act and Article 7 of the Taipei City Disaster Prevention Regulations, the Reconstruction Promotion Committee shall be composed of personnel from various agencies, with the preceding regulations to handle all post-disaster recovery and reconstruction work.

## Promotion of sponge city.

Faced with global climate change and regional extreme climates, the City has long committed to flood control and drainage construction and river remediation, with the goal of providing people with a safe and livable waterfront city. However, in the face of arduous extreme climate challenges and competition for water resources in the future, the City takes the sponge city concept as the core of its water environment policy, with "resilience and adaptation", "sustainable water usage", and "vibrant water environment" as the three major visions outlining a safe, sustainable, water-friendly, and ecological blueprint for Taipei's water environment.

The sponge city promotes six goals: "restoring urban water cycle", "increasing flood-resisting capacity", "stable and efficient water supply", "diverse water reuse sources", "livable natural habitats", and "promoting waterfront activities", to develop a total of about 29 billion budgets over five years through 13 strategies and 190 projects. Make use of engineering and management methods to further implement the water-permeable pavement, increase the urban green coverage rate, promote the construction of green roofs, increase the capacity of urban storage for flood retention, promote the upgrading of sewage treatment, diversify the reclaimed water utilization, restore and protect the water environment habitat, create a hydrophilic recreational environment, so that the city has the ability to infiltrate and retain water, and the evaporated water vapor can adjust the urban microclimate.



► Water-permeable sidewalk at Gangqian Park.

## 1

## Promote water-permeable pavement of public spaces.

The use of water-permeable pavements will be promoted through public facilities (sidewalks, park squares, campuses and parking lots, etc.) to achieve evapotranspiration, after absorbing rain and evaporating sun. From 2015 to 2019, the city's 219,231 m<sup>2</sup> of sidewalks park squares, campuses and parking lots had been constructed with water-permeable pavements, which is equivalent to about 521 basketball courts. Also, through actual monitoring, the average maximum cooling effect of permeable bricks could successfully reduce the surrounding temperature by about 1.42~5.86°C. It is evident that permeable pavements have the effect of regulating the microclimate and reducing the urban heat island effect.



► The vision of Sponge City .

## 2

## Promote public-private cooperation to help building water retention sites.

### ◆ Development water retention design for public facilities.

In order to reduce the urban heat island effect and the effect of apportioning surface runoff of the catchment area, implement water conservation design on public facilities such as schools, parks, parking lots over 800m<sup>2</sup> and the priority method is green land or infiltration. The total volume of water retention was 82,244m<sup>3</sup> from 2015 to 2019.

### ◆ The site development is added with rainwater outflow suppression facilities.

Those who construct more than 300m<sup>2</sup> site through the public and private sector must set up rainwater outflow suppression facilities, and meet the minimum water retention of 780m<sup>3</sup> per hectare and maximum discharge of 0.173m<sup>3</sup>/s, to achieve the concept of shared runoff and outflow control. The total water retention volume was 28,426m<sup>3</sup> from 2015 to 2019 .



► Rainwater tank at Hsinhsin Park.

### ◆ Setup of rainwater tank in parks.

Through the setup of rainwater tank in parks, the surface runoff from rainy days is stored in the facility, replacing tap water for plant watering, toilet flushing, sprinkler cooling and ecological supplements to achieve sustainable water resources. The total volume from 2015 to 2019 of rainwater tank setup in 25 parks reached 1,408.63m<sup>3</sup> in the City.



## Heat wave warning.

High-temperature weather may cause residents to suffer heat stroke, heat exhaustion and other phenomena that may endanger the health of the public and endanger the levels of electricity use, sanitation and food safety. In order to reduce the negative impacts of the residents with high temperatures, in 2015, Taipei City formulated a heat wave disaster prevention and treatment strategy, and established a heat wave warning and notification mechanism in 2016. Relevant departments were integrated, and launched various high temperature response measures, incorporated into the Taipei City disaster prevention and rescue plan, to remind the public and related authorities to take precautions against thermal injuries and slow down the thermal hazards caused by high temperatures.

In addition, the heat wave warning and notification mechanism has been modified following the national "High Temperature Information" which was set in 2018 by the Central Weather Bureau. The yellow light is to be alert, and the orange light and red light are used as the heat wave warning standard for the City. Once the heat wave warning and notification mechanism has been activated, high temperature response measures would be executed by relevant city departments, including the Department of Environmental Protection to carry

out road watering and cooling, Parks and Street Lights Office to irrigate greeneries in parks, Department of Labor conducts labor inspections on outdoor workers, Department of Social Welfare pays special cares to live-alone seniors, individuals with disabilities and homeless, Market Administration Office enhances food safety announcements of markets and vendors, as well as Department of Health notifies of emergency medical services and counseling of food industry health management, to respond to and mitigate the potential hazards caused by high temperatures during extreme heat.



► Water sprinkling to lower temperature on the surface of the roads.

## Greenhouse gas control implementation plan.

The city's greenhouse gas reduction target is to set 2005 as the base year of greenhouse gas emissions. The target for 2030 is 25% lower than the base year, and the target for 2050 is 50% lower than the base year. In 2019, the emissions of greenhouse gas has reduced by 11.31% compared with 2005, and will gradually reach the reduction target.

The greenhouse gas reduction strategy includes the establishment of the "Greenhouse Gas Reduction Supervisory Report", regularly updating greenhouse gas emission data, promotion of greenhouse gas reduction strategy details, and promote residential and commercial energy saving action plans of replacing old equipment and smart use of electricity, increasing the amount of renewable energy, developing electric vehicles to increase green transportation. Review the reduction targets every five years in periodically to achieve the goals at a steady and pragmatic pace.



## Promotion of Garden City.

Garden City through the establishment of an online platform to communicate with the public, the bottom-up approach of public participation and urban garden sites, under the multiple values of food and agricultural adoption education, community exchange, space creativity, social welfare, sustainable ecology and urban landscape, encourage to find vacant spaces for greenery, building roofs, campus spaces and any interesting community corners in the limited urban space to

plant edible plants, promote and encourage public vacant land, municipal and private buildings or private enterprises to build urban garden sites to create an eco-friendly urban landscape.

Further extend and supplement the green space system, to indirectly mitigate the impact of extreme weather. From 2015 to 2019, a total of 197,373 m<sup>2</sup> of urban garden sites have been completed.



► Rice growing at Taiping Elementary School.

## Climate change education

The City plans to establish an environmental education counseling group. In 2019, Taipei City School Environmental Education Center ( TCSEEC ) was combined with a three-level environmental education counseling group to focus on five major themes such as environmental ethics, climate change, disaster prevention education, sustainable use of energy resources and sustainable development education. Plan three courses of "green simplicity", "environmental protection" and "sustainable development", and develop environmental education action strategies to shape examples of environmental education seed school, promote regional sustainable campus partner organizations, and practice sustainability of the campus and people and prosperity of the environment, a total of 14 environmental education sub-projects were organized, and the concept of climate change was gradually taking root in the people's basic concepts , so to increase the basic knowledge of climate change in the public minds.

# SDG17

## Strengthen the means of implementation and revitalize the global partnership for sustainable development.

Sustainable development is a global task that requires collective effort of each country and city. The City has established the Smart City Project Management Office, and linked strategies from each department to accelerate policy progress and integrate resources. Furthermore, promote industry innovative smart solutions via public-private partnership, and connect with international cities to form the Global Organization of Smart Cities. Through this network, create opportunities for inter-city collaboration and exchanges, and actively participate in international conferences in sustainable development and climate adaptation, and initiate Carbon Disclosure Project of the City.

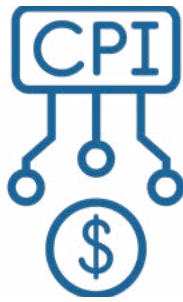
The outcomes of each of these policies have received international recognition. Meanwhile, establish the Taipei Citizen Participation Committee to break away from the existing top-down policy-making practices, and conduct participatory budgeting, which allows the direct public participation in the government's partial budgeting decisions. It increases budget transparency and raises citizenship awareness, and introduces citizens to active participation of public policies and public affairs.

In the future, actively seeking diversified sustainable development partners will be the goal, where sustainable development will be prioritized as the key communication language linking various targets. Achieve the realization of the vision of economic, environmental and social prosperity.



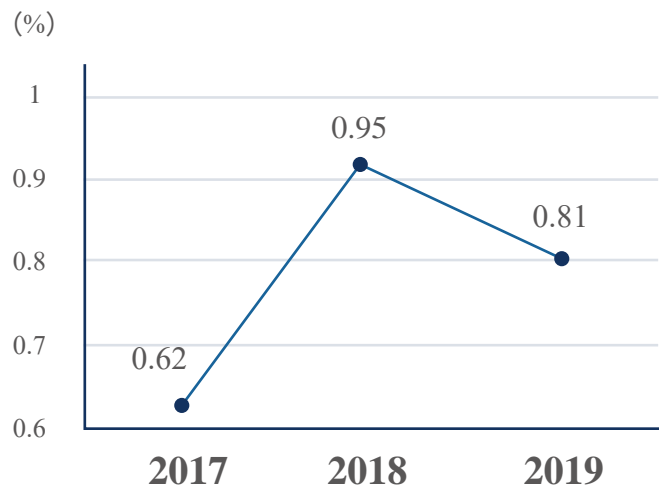
### United Nations SDGs targets currently in effect in Taipei

- ▶ 17.6 Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance knowledge sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism.
- ▶ 17.8 Fully operationalize the technology bank and science, technology and innovation capacity-building mechanism for least developed countries by 2017 and enhance the use of enabling technology, in particular information and communications technology.
- ▶ 17.13 Enhance global macroeconomic stability, including through policy coordination and policy coherence.
- ▶ 17.14 Enhance policy coherence for sustainable development.
- ▶ 17.16 Enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries.



The average annual rate of increase in the consumer price index over the past 3 years (%)

Target for 2030 : < 2%<sup>9</sup>



Promotion of participatory budget ( persons )

Target for 2030 : 170,000 persons<sup>10</sup>

No. of persons participating in the City's participatory budget (including empowerment, proposal briefing, residents meeting, i-Voting)  $\geq$  City population of people aged 16 and over  $\times$  2%; data beginning from 2020.

## Citizen Participation Committee and Participatory Budget.

"Taipei Citizen Participation Committee" was established in April 2015 to realize the governance concept of "open government and public participation". Actively develop relevant plans and promote related matters, from proposal

briefings, resident conferences, proposal review workshops, i-Voting votes to the final implementation stage, all are self-propelled through the public service system, rather than handled outside through bidding.

It is hoped that by promoting the participatory budget system, it will arouse civic awareness and guide citizens to generate ideas for public policies and public affairs, and then spontaneously propose better ideas for their own living space and public system, so as to improve the quality of life in Taipei City and better meet the expectations of the public.



► 2019 i-Voting voting site for participatory budget.

<sup>9</sup> According to the set value of the overall economic goals in the latest national development plan issued by the National Development Council (hereinafter referred to as NDC), the price index rose no more than 2.0% (data from the latest announcement of NDC from 2017 to 2020).

<sup>10</sup> Based on the "Taipei City Population Estimation from 2016 to 2051" study, it is estimated that by 2030, the population of people aged 16 and over will be 2,429,863, with a target value of 170,000.



## Established Taipei Smart City Project Management Office.

Since 2003, taking "Digital City" and "Action Taipei" as the starting policies, active broadband network construction and wireless network application services began. In 2007, with the purpose of "smart city, quality life", strengthening broadband infrastructure and facilitating municipal services were listed as the key points for promoting smart cities.

Based on the existing development, the City continues to implement the "development of smart city" governance philosophy. "Taipei Smart City Project Management Office (TPMO)" was established to match different offices with expertise of various backgrounds and assist policy integration, so that the offices can use this platform to connect more easily, accelerate the implementation of governance, and then derive "Top-down" and "Bottom-up" two promotion mechanisms. Through the proof-of-concept ( PoC ) model, it provides the fields and opportunities to assist the industries in promoting innovative smart solutions and producing related smart services. Presently, through public-private partnership and supplemented by the PoC mechanism, more than 170 experimental projects have been promoted.

In addition to actively use innovative technology to improve the quality of life of citizens in order to develop smart cities and assist domestic high-quality smart city industries to develop international cooperation to expand the City's smart city development achievements and to embrace innovation momentum domestically and internationally, the City initiated the launch of GO SMART ( Global Organization of Smart Cities, Global Smart Cities Alliance ) in 2018. After a year of preparation, it was officially established in March 2019, and the local governments from around the world, industries and academic institutions were welcomed to join as members.

GO SMART currently has nearly 200 members, including six municipalities in Taiwan, Japan, Singapore, Hong Kong, Australia, the United Kingdom, France, the Netherlands, the Czech Republic, the United States, Brazil and other countries and cities. The City can strive to enhance global partnerships for sustainable development by matching domestic and foreign public and private energies, provide information exchange for knowledge sharing, professionalism, technology and project funding, and promote breakthroughs. By facilitating project collaboration to break the boundaries of cities, the City can assist all countries and cities to achieve the sustainable development goal.



► The inaugural meeting of GO SMART in 2019.



► MOU signing between GO SMART and LGAQ.

## Global partnership.

1

### Urban Environmental Accord (UEA).

In 2005, the "Urban Environmental Accords" (UEA) was signed in San Francisco, the United States. The agreement proposed 21 action plans on 7 major issues: energy, waste reduction, urban design, urban nature, transportation, environmental health and water. To enhance sustainable development of the urban environment. Since 2011, summit meetings have been held every two years to allow members of the alliance to exchange progress and achievements in the implementation of the agreement.

In 2015 and 2017, the City went to Iloilo, Philippines, and Melaka, Malaysia respectively to participate in the Urban Environmental Accords Summit. Further in 2017, the City was awarded the first UEA City Award, advocating the City as the very model city that promotes best practices in green and sustainable measures.

2

### Carbon Disclosure Project (CDP).

The city had been participating in the international Carbon Disclosure Project (CDP) since 2011, and has actively registered the greenhouse gas reduction results every year. In May 2019, the CDP rated for the first time the results of the 2018 disclosure of 596 cities participating in carbon disclosure in the world, only 7 % of the cities were rated A, and the City was one of them, and it was also the only city in Asia that was selected for a dedicated article. In 2019, among the more than 850 cities in the world that participated in carbon disclosure, the City received another A-level evaluation (105 cities were rated A-level), and won the CDP annual carbon disclosure achievement A-level evaluation for two consecutive years.

3

### Other sustainable development international organizations.

The promotion of sustainable development of Taipei City and integrating it with the world, to help establish a close partnership with global cities, and build a livable and sustainable city of Taipei. Actively participate in Asia Pacific Cities Summit (APCS), CityNet, United Cities and Local Governments (UCLG) and its branches (UCLG-ASPAC), Global Social Economic Forum (GSEF) and other international organizations on issues related to sustainability. And during these conferences, actively seek opportunities to announce the City's efforts in the promotion of sustainable strategies and governance results. Make use of publicity (print, online and social media) channels of each international organization or events to market and promote the City's sustainable policy results and increase international visibility.

# Future Prospects

2020 is a special year; COVID-19 disrupted the order of our lives, which again showed the importance of promoting sustainable development. Therefore, for the compilation of the 2020 Taipei City Voluntary Local Review, sustainable development actions and outcomes corresponding to COVID-19 were also incorporated in the report, to display the City's forward-looking outlook.

Sustainable development depends on the practices of daily lives. The 2020 Taipei City Voluntary Local Review focused on 11 priority promotion goals, each of which corresponded to the detailed targets of the United Nations Sustainable Development Goals, which will be used as a base reference for follow-up evaluations, ensuring the correctness of each promotion strategy. At the same time, the report will be submitted to the international platform for public display, in order to gather collective efforts to work together for global sustainable development.

In the future, the City will continue to improve, implement the concept of "open government", promote citizen participation and education promotion, let the concept of sustainable development take root from an early age, and accept suggestions from civil organizations and enterprises, and incorporate regular reviews and update operation processes into the future. These strategies will contain more local feature content in the Taipei City Voluntary Local Review. Meanwhile, Taipei city will link up with the world.

The Taipei City Government will continue to update and submit the voluntary local review on a regular basis. Through annual periodic adjustments and revisions, make connections to international development trends, and adjust the City's various strategies and action plans, so that Taipei City can continue to make progress and move steadily towards the goal of a livable and sustainable city.















# Appendix





# SDG 3

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

Indicators	2017	2018	2019	Target for 2030
Average life expectancy (years)	83.36	83.57	83.63	86
Calculation method: cumulative stationary population of 0-year-old / number of 0-year-old survivors.				
Coverage rates of 3 types of cancer screenings (%) <sup>1</sup>	45.4 (4 cancers)	46.52 (4 cancers)	47.78	50.5
Calculation method: sum of coverage rates of 3 types of cancer screenings (colorectal, breast, and cervical cancers) / 3 x 100%				
Suicide mortality rate per 100,000 population (per 100,000 population)	11.8	13	12.8	<13
Calculation method: (annual no. of suicide deaths / mid-year population) x 100,000.				
No. of deaths and injuries from road traffic accident per 100,000 population (persons / per 100,000 population)	1,075	1,063	1,105	<961
Calculation method: (no. of road traffic accident deaths + injuries / population) x 100,000.				
No. of deaths from road traffic accident per 100,000 population in 30 days (persons / per 100,000 population)	3.95	5.10	4.87	<3.61
Calculation method: (no. of deaths in road traffic accidents in 30 days / population) x 100,000.				
Immunization coverage (%)	38	40.5	45.6	54.25
Calculation method: (sum of coverage rates of influenza vaccination for elders, influenza vaccination for children, rotavirus vaccination, and pneumococcal vaccination for elders) / 4 x 100%.				
Diagnosis rate for dementia (%)	53	58	63.07	70
Calculation method: (total no. of people diagnosed with dementia that year / total no. of people screened for suspected dementia that year) x 100%.				
Childcare services supply ratio (%)	15.06	19.33	22.93	30
Calculation method: (approved no. of children under 2 years old accepted into the City's registered infant daycare centers and actual no. of children under 2 years old under care of home babysitting service providers (nannies) / no. of children under 2 years old in the City) x 100%.				

<sup>1</sup> In 2018, the Health Promotion Administration, Ministry of Health and Welfare made policy amendments to oral cancer screening and removed the target number of oral cancer screenings, hence the 2019 indicator definition was changed accordingly. Amended take statistics on the 3 cancers of colorectal, breast, and cervical cancers.



# SDG 4

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

Indicators	2017	2018	2019	Target for 2030
Percentage of 5-year-old children with household registration in the City who enrolled in preschools (%)	93.3	94.39	95.06	97
Calculation method: (no. of 5-year-old children enrolling in legally registered kindergartens / no. of 5-year-old children with household registration in the City)x100%				
No. Of students participated in technological and vocational education (persons)	252	350	596	2,000
Calculation method: no. of students benefiting from government- and enterprise-/association-hosted industry-academia collaboration projects.				
No. of participants in multicultural (indigenous peoples and new immigrants) language courses (persons)	406	591	619	900
Calculation method: no. of participants in multicultural (indigenous peoples and new immigrants) language courses.				
Improvement rate for students who underwent supportive learning counseling (%)	75	78	78.3	78.5
Calculation method: average improvement rates of the students' grade in 3 subjects of Language, English, and Math after attending supportive learning counseling.				
Employment rate of the graduating class of centralized special education classes (%)	59.2	64	65.18	72
Calculation method: no. employments of the graduating class of centralized special education classes/ no. of students of the graduating class of centralized special education classes.				
The City's illiteracy rate for people over 15 years old (%)	0.49	0.45	0.42	0.4
Calculation method: no. of illiterate population over 15 years old / population over 15 years old x 100%.				
Cumulative no. of elementary schools in the installation of inclusive playgrounds (schools)	3	6	9	42
Calculation method: calculated using the addition of inclusive playground installations in 3 schools annually.				
Rate of unfriendly treatment among peer students (%)	4.81	4.21	4.64	<4.5
Calculation method: no. of students who were treated unfriendly of the year / total no. of students of the year x 100%.				
No. of Junior high dropouts and high-risk students participating in vocational experience courses (persons)	25	24	27	>30
Calculation method: no. of Junior high dropouts and high-risk students participating in vocational experience courses.				



# SDG 5

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

Indicators		2017	2018	2019	Target for 2030
No. of victims of domestic violence per 100,000 population (persons/100,000 population)	Males	264.66	278.58	363	302.08
	Females	506.49	517.68	636.01	553.39
Calculation method: no. of male (female) victims of domestic violence / male (female) interim population x 100,000.					
No. of victims of sexual assault per 100,000 population, respectively (persons/100,000population) <sup>2</sup>	Males	11.12	11.19	10.26	10.86
	Females	48.08	49.78	54.07	50.64
Calculation method: no. of male (female) victims of sexual assault / male (female) interim population x 100,000.					
The screening rate of women between ages 45 and 69 to undergo mammography within the past two years (%)		39.6	49.7	47.68	50.18
Calculation method: no. of women between ages 45 and 69 to undergo mammography within the past two years / population x 100%.					
Birth sex ratio (male / female)		105.96	105.75	-	Normal range of 102~106
Calculation method: no. of male births / no. of female births x 100.					
Male to female ratio in acquiring real estate ownership (%)	Males	50.9	50.2	50.3	50
	Females	49.1	49.8	49.7	50
Calculation method: no. of males (females) acquiring real estate ownership by age group / no. of people acquiring real estate ownership by all age groups x 100%.					

<sup>2</sup> The target value design principle is estimated from DGBAS statistics between 2014 to 2018. Consideration need to be taken as originally unreported dark figures are still on the rise, thus an increase in service personnel is assessed.





## SDG 6

## Ensure availability and sustainable management of water and sanitation for all.

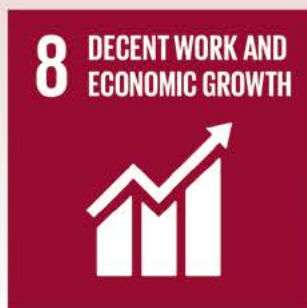
Indicators	2017	2018	2019	Target for 2030
Utilization rate of water source from reservoir (%)	89.66	89.86	90.01	>90
Definition: the water volume used refers to the amount of water utilized by water drainage through water supply or electricity use.				
Calculation method: annual reservoir utilized water volume / annual reservoir discharged water volume x 100%.				
Qualification rate of tap water (%)	100	100	100	100
Definition: ratio of no. of sampling locations passing the inspection out of all sampling inspections of the whole year.				
Calculation method: (no. of qualified tap water inspections / no. of tap water inspections) x 100%.				
Tap water leakage rate (%)	14.18	13.52	12.71	10
Definition: fragile land, old pipelines, excessive traffic load leading to damaged pipelines. The ratio between lost water volume and total allocated water volume.				
Calculation method: leakage volume / allocated volume x 100%.				
River biochemical oxygen demand in line with water classification benchmark achievement rate (%)	95.8	93	94.6	95
Definition: compliance rates of City jurisdiction river section Category C water body biochemical oxygen demand $\leq 4\text{mg/L}$ , Category D water body biochemical oxygen demand $\leq 8\text{mg/L}$ .				
Calculation method: no. of monitoring stations of the biochemical oxygen demand of the river section within City jurisdiction in line with the water body classification benchmark value / total no. of monitoring stations x 100%.				
Percentage of city population served by sewage collection (%)	81.81	82.81	84.83	88.59
Definition: sum of no. of the public sewage drainage connection sewer system, no. of specialized sanitary sewer, no. of building's sewage facilities x household quantities / population ratio.				
Calculation method: total population with sewage treatment / population x 100%.				



## SDG 7

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

Indicators	2017	2018	2019	Target for 2030
Total installed capacity of photovoltaic power generation equipment (kW)	8,870	18,822	28,942	50,000
Calculation method: cumulative installed capacity of photovoltaic power generation equipment up to the year				



## SDG 8

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

Indicators	2017	2018	2019	Target for 2030
Assist in enterprise innovations in the City (enterprises)	382	321	296	315
Calculation method: actual no. of enterprises.				
Taipei City foreign exchange earnings in tourism (NT\$ billion)	321.16	294.807	282.924	403.2
Definition: the amount of consumption from foreign visitors to Taipei City.				
Calculation method: no. of foreign visitors to Taipei City x amount of consumption per person per day x average length of stay x exchange rate.				
Employment rate (%)	59.74	53.38	68.33	55.9
Definition: the proportion of effective employment and newly registered job applicants.				
Calculation method: no. of effective employment / no. of newly registered job applicants x 100%.				

Indicators	2017	2018	2019	Target for 2030
Matchmaking rate for specific target employment (%)	50.3	47	63.23	48
Definition: the specific target employment is including to indigenous peoples, economically disadvantaged families, persons who financially support families alone, the middle-aged and older adults, victims of domestic violence, women seeking re-employment, the disabled, persons from medium or low-income families, rehabilitated ex-convicts, long-term unemployment.				
Calculation method: no. of effective specific target employment / no. of newly registered specific target job applicants x 100%.				
Employment rate of persons with disabilities (%)	53.97	50.53	56.8	>60
Calculation method: no. of successful employment recommendations / served cases by the employment service personnel x 100%.				
Workplace fatal injury rate	5.93	6.29	7.05	5.5
Calculation method: (no. of deaths from major occupation accidents in the City / no. of insured labors with the City's labor insurance under Occupational Safety and Health Act)x10 <sup>6</sup> .				
Workplace major injury rate	2.12	1.26	1.66	1.66
Calculation method: (no. of major injuries from major occupation accidents in the City / no. of insured labors with the City's labor insurance under Occupational Safety and Health Act)x10 <sup>6</sup> .				
No. of foreign caregivers participating in skills training (persons)	75	420	430	450
Calculation method: no. of foreign caregivers participating in skills training.				
Mitigation success rate of migrant worker dispute cases via coordination meetings (professional coordinators) (%)	-	88	85	>85
Calculation method: no. of successful cases via coordination meetings / no. of cases via coordination meetings x 100%.				





## SDG 9

# Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.

Indicators	2017	2018	2019	Target for 2030
Annual cumulative siltation rate of the reservoir (%)	6.47	6.54	6.62	<7.57
Definition: annual cumulative siltation rate of the reservoir.				
Facility availability rate of the dam (%)	99.6	99.65	99.41	>99.7
Definition: calculate the average of 3 of the dam's important facility availability rates of dam monitoring instrument, hydraulic gate, and power plant unit.				
Calculation method: [(dam monitoring instrument availability rate, gate facility availability rate, and power plant unit availability rate)] / 3.				
Bikeshare ridership (milliom trips)	21.95	26.25	28.46	33
Definition: the usage of public bicycles.				
Calculation method: annual usage of public bicycles.				
Public transportation usage for disadvantaged groups (%)	128	130	111.38 <sup>3</sup>	≥100
Calculation method: (delivery rate for universal taxi accessible transportation rides/year x 50%) + (delivery rate for handicap bus rides/year x 50%).				
Usage rate of public transportation by elders (%)	9.8	24.5	8.75	10
Calculation method: (no. of users taking public transportation using senior citizens card this year - no. of users taking public transportation using senior citizens card last year) / no. of users taking public transportation using senior citizens card last year.				
No. of people per 100 with mobile data devices (devices)	146.3	151.5	155.6	165
Definition: according to the Digital Opportunity Survey Report for Individuals and Households by the National Communications Commission on digital opportunities of individual households.				
Calculation method: (ownership of information devices by individuals by city and county) the no. of tablet PCs + smart phones.				

<sup>3</sup> Index calculation of public transportation usage (%) for disadvantaged groups = delivery rate for universal taxi accessible transportation rides of the year x 50% + delivery rate for handicap bus rides x 50%. If delivery rate of the year exceeds original target value, then a number larger than 100% will appear.



# SDG 11

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

Indicators	2017	2018	2019	Target for 2030
Social housing construction project (households)	19,313	19,923	19,876	>20,000
Calculation method: no. of households of social housing construction and joint urban renewal real estate of the year.				
Occupancy rate of public housing (%)	-	97.95	95	≥95
Calculation method: (no. of tenant households in social housing / no. of social housing provided) x 100%.				
Average no. of public transportation by per capital	261.95	268.6	273.96	305
Definition: The statistics and analysis of passenger traffic volume of Bus, MRT, high-speed rail, train, highway bus of Taipei and New Taipei city.				
Calculation method: no. of trips by public transportation / (population of the Taipei City + population of New Taipei City).				
MRT length available per 100,000 population (km)	3.42	3.44	3.49	3.91
Calculation method: City MRT network length of the year (km)/population of the year.				
Promotion progress of barrier-free transportation facilities (%)	100	100	103.2	≥100
Calculation method: (cumulative actual no. of subsidization of universal taxis / cumulative scheduled no. of subsidization of universal taxis x 50%) + (cumulative actual no. of replacement of low-floor buses / cumulative scheduled no. of replacement of low-floor buses x 50%).				
No. of e-buses (vehicles)	0	22	22	≥3,500
Calculation method: no. of e-buses				
Penetration rate of intelligent bus stop signs (%)	36.1	48.5	56	90
Calculation method: no. of installed smart bus stop sign locations / no. of installable bus stop sign locations x 100%.				
No. of fire deaths per 100,000 population	0.819	0.6	0.567	0.263
Definition: no. of deaths in the City within 30 days of the fire.				
Calculation method: no. of deaths by fire x 100,000 / population.				

Indicators	2017	2018	2019	Target for 2030
Annual average concentration of PM <sub>2.5</sub> (μg/m <sup>3</sup> )	15.3	14.6	13	10
Calculation method: annual average monitoring value of PM <sub>2.5</sub> .				
Total municipal solid waste generation per capital per year (tons/person-year)	0.463	0.462	0.461	<0.45
Calculation method: (garbage arrival amount at incineration plants throughout the year + resource recycling amount + re-usage amount of large trash pieces + recycling amount of kitchen waste) / population.				
Green area per 100,000 population (hectares)(Annual green resources area, hectares)	521.2 (13,985.01)	522.28 (13,937.38)	529.54 (14,006.46)	530.78 (14,039.46)
Definition: Green resources (including developed park, green space, squares, children playgrounds, stadium, education park, riverside parks, linear park, scenic areas, protected areas, areas of the Yangmingshan National Park in the jurisdiction of Taipei city and other areas) accessible for each 100,000 population of the city				
Calculation method: green resources area of Taipei City (hectares) / population x 100,000.				
Clearance rate of violent crime (%)	100	100	100	100
Definition: clearance rate of the City's violent crime incidents				
Calculation method: no. of cleared cases of violent crimes / no. of incidents x 100%.				





## SDG 12

### Ensure sustainable consumption and production patterns.

Indicators	2017	2018	2019	Target for 2030
Green product procurement designated by government offices: requiring the procurement of first level environmental label (%)	95	95	98	100
Calculation method: total cost of all designated procurement items with environmental labels / total cost of all designated procurements.				
Declaration cost of green procurement of private enterprises and organizations (NT\$ billion)	8.65	9.29	12.6	14
Calculation method: declaration cost of green procurement of private enterprises and organizations.				
No. of shops adhering to the ban of disposable tableware policy (shops)	-	-	400	1,500
Calculation method: no. of enterprises + night markets + markets + college and universities + government offices + outsourced venue sites.				
Resource recovery rate (%)	62.02	64.42	64.35	66.1
Definition: the percentage of recycled resources to processed waste.				
Calculation method: [(executive offices resource recovery amount) / waste production amount (including waste removal, recycling and re-usage amount of large trash pieces, amount of kitchen waste recycling, and executive offices resource recovery amount)] x 100%.				
Amount of hazardous wastes collected per person per year (kg/person-year)	3.22	3.49	4.48	6
Definition: hazardous waste refers to the hazardous waste disposed by institutions (schools, hospitals and government buildings).				
Calculation method: removal declaration amount of hazardous wastes throughout the year / population.				



# SDG 13

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

Indicators	2017	2018	2019	Target for 2030
Annual reduction rate of greenhouse gas emissions compared with 2005 (%)	3.49	7.34	11.31	25
Definition: in response to the "Greenhouse Gas Reduction and Management Act" set out in 2016, which clearly set 2005 as the base year, with the goal of reducing emissions to 50% lower than the base year by 2050. Taipei City has set mid to long term reduction goals, to reduce emissions to 25% lower than 2005 by 2030, and to reduce greenhouse gas emissions to 50% lower than 2005 by 2050.				
Calculation method: $(\text{greenhouse gas emissions in 2005} - \text{greenhouse gas emissions of the year}) / \text{greenhouse gas emissions in 2005} \times 100\%$ .				
Cumulative area of permeable pavement of each year(m <sup>2</sup> )	129,792	172,564	219,231	493,229
Definition: permeable pavements of sidewalks, park squares, parking lots, and school campuses.				
Calculation method: cumulative area of permeable pavement of each year.				
Cumulative water retention volume at the base(m <sup>3</sup> )	37,470	67,101	112,079	137,367 <sup>4</sup>
Calculation method: cumulative water retention bodies completion in public-private land development.				
Cumulative urban garden site areas (m <sup>2</sup> )	140,190	158,755	197,373	206,013
Definition: total urban garden site areas of the City.				
Calculation method: cumulative sum newly built urban garden site areas of the year, and existing urban garden site areas.				
Amount of estimated damage due to natural disasters (NT\$1,000)	73,614	44,213	68,657.8	62,162
Definition: all damages to public constructions that are under the jurisdiction of the Public Works Department, Taipei City Government caused by landslides, typhoons, earthquakes and forest disasters within the urban planning area of the City are subject to statistics.				
Calculation method: sum of amount of estimated damage due to natural disasters of landslides, typhoons, earthquakes and forest disasters.				

<sup>4</sup> The water retention bodies is determined by the number of construction completion projects and development projects of the year. The growth of the target value is passive and highly uncertain.



# SDG 17

## Strengthen the means of implementation and revitalize the global partnership for sustainable development.

Indicators	2017	2018	2019	Target for 2030
The average annual rate of increase in the consumer price index over the past 3 years (%)	0.62	0.95	0.81	<2 <sup>5</sup>
Definition: average annual inflation rate over the past three years.				
Calculation method: [the cube root of (consumer price aggregate index of the year/consumer price aggregate index from 3 years ago)-1] ×100%.				
Promotion of participatory budget (persons)	No. of persons participating in the City's participatory budget (including empowerment, proposal briefing, residents meeting, i-Voting) ≥ City population of people aged 16 and over x 2%; data beginning from 2020.			170,000 <sup>6</sup>
Calculation method: budget. No. of persons participating in the City's participatory budget (including empowerment, proposal briefing, residents meeting, i-Voting)				

<sup>5</sup> According to the set value of the overall economic goals in the latest national development plan issued by the National Development Council (hereinafter referred to as NDC) , the price index rose no more than 2.0% (data from the latest announcement of the NDC from 2017 to 2020).

<sup>6</sup> Based on the "Taipei City Population Estimation from 2016 to 2051" study, it is estimated that by 2030, the population of people aged 16 and over will be 2,429,863, with a target value of 170,000.





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