

**2017**

**Taoyuan City Climate  
Change Adaptation Plan**

**Taoyuan City Government**

**September, 2017**

# Table of Contents

- I. Introduction.....3
- II. Strategy and Action Plan Contents.....3

# Taoyuan City Climate Change Adaptation Plan

## I. Introduction

In recent years, energy consumption such as fossil fuels have caused the global carbon cycle to be destroyed. In order to mitigate the impact of global warming on the environment and prevent future disasters, our country has put forward action plans to mitigate the impact on the more sensitive sectors or industries after the climate change so as to enhance their adaptability to the climate change. They are divided into eight major categories of disaster relief, subsistence infrastructure, water resources, land use, seashore, energy supply and industry, agricultural production and biodiversity, and health. In response to the Central Government's efforts to adjust and mitigate climate change, Taoyuan City invites its bureaux and departments to conduct business discussions and put forward various action plans this year to construct the "2017 Taoyuan City Climate Change Adaptation Plan" to facilitate the gradual promotion from the bureaux and departments.

## II. Strategy and Action Plan Contents

This year's (2017) adaptation plan is organized into 8 categories, 23 adaptation strategies and 52 action projects, as follows:

8 categories	Disaster	Subsistence infrastructure	Water resources	Land use	Seashore	Energy supply and industry	agricultural production and biodiversity	Health
23 adaptation strategies	<p>Accelerate the integration of land monitoring resources and disaster early warning information systems and the establishment of a platform to enhance the response capability to climate change shocks</p> <p>Promote integrated watershed management and reduce climate risks</p> <p>Strengthen the impact response capacity of extreme weather events and promote information disclosure, advice, early warning, disaster prevention and mitigation education and exercises in areas subject to shocks and dangers</p> <p>Enhance damage facilities</p>	<p>Implement, review and amend existing laws and related norms to strengthen facility's adaptability</p> <p>Implement the maintenance of subsistence infrastructure to enhance its adaptability to climate change</p>	<p>Sustainable management and utilization of water resources is the highest guiding principle, and put emphasis on water environment protection</p> <p>Review water management policies from the supply side to promote water use efficiency</p>	<p>Establish appropriate supporting mechanisms of land use management for adaptation</p> <p>Implement environmental sensitive area concepts in planning and management of land conservation areas</p> <p>Enhance the effectiveness and adaptability of land flood control in urban areas</p>	<p>Review the deficiencies and shortcomings of existing spatial planning in adapting to climate change</p> <p>Protect and rehabilitate coastal habitats and wetlands that may be affected by climate change</p>	<p>Activate closed landfill land and produce green energy</p> <p>Obtain new products and services brought about by the impact of climate change</p> <p>Provide support to industries in response to the impact of energy and industrial climate change</p>	<p>Integrate science and technology to enhance industry resilience</p> <p>Construct food security system according to the degree of risk</p> <p>Establish a multi-objective and sustainable quality forestry management adaptation mode and promote green afforestation</p>	<p>Reduce the rate of biodiversity loss caused by human disturbance</p> <p>Enhance the performance and division of labor related to environment and health</p> <p>Strengthen climate change education and post-disaster immunization knowledge</p>

### 1. Project A-1-1 : River bed elevation observation and development plan

- (1) Organizer : Department of Water Resources
- (2) Project duration : January 2017 to December 2018
- (3) Total budget : NT\$2,000,000

(4) Project content :

In Nankan Creek and Laojie Creek, we set up automatic monitoring equipment of river bed elevation to check the changes of riverbed erosion or sedimentation, which can be used as a reference basis for river dredging.

**2. Project A-1-2 : Establishing water information system to expand the maintenance program**

(1) Organizer : Department of Water Resources

(2) Project duration : May 2016 to April 2019

(3) Total budget : NT\$27,710,000

(4) Project content :

Due to the low-lying areas in some parts of Taoyuan City, it is easy to cause the flooding of the submerged flooded area in case of sudden heavy rainfall. Therefore, in order to grasp the water information of Taoyuan in real time, make effective disaster prevention and response decisions, and reduce the loss of public life and property, we adopt a yearly budget to establish a complete contingency response system.

**3. Project A-2-1 : Using satellites to monitor hillside variation**

(1) Organizer : Department of Water Resources

(2) Project duration : January 2017 to December 2017

(3) Total budget : NT\$2,600,000

(4) Project content :

Since the territory of hillside in Taoyuan City is vast, the management of hillsides in the past mainly relied on public reports and on-site inspections. However, due to the limitation of terrain, it was hard to understand the whole picture or the defaulters deliberately disguised or closed the entrances and exits, resulting in the inspection blind spots. Therefore, using techniques such as satellite image variation analysis and unmanned aerial vehicle aerial photography, in conjunction with the work of hillside audits conducted by this bureau, we established a Hillside Remote Sensing Image Analysis and Monitoring Mechanism” surveying hillsides with satellite images, to enhance hillside management effectiveness, reduce hillside violations and lower disaster risk.

#### **4. Project A-2-2 : Environmental improvement project of important rivers**

- (1) Organizer : Department of Water Resources
- (2) Project duration : January 2017 to December 2018
- (3) Total budget : NT\$60,000,000
- (4) Project content :

Shanzhu Lake Ecology and Waterfront Park Project: Planning for the restoration of the scenic area of Shanzhu Lake Park with an area of about 18 hectares and about 50 meters of Bicycle Bridge spanning Yongfu Creek.

#### **5. Project A-2-3 : Full river basin management, guarding the safety of our homes**

- (1) Organizer : Department of Water Resources
- (2) Project duration : January 2017 to December 2017
- (3) Total budget : NT\$802,380,000
- (4) Project content :

I. Regional drainage wild creek management :

Management project of Nankan Creek, Laojie Creek, Jiadong Creek, Shezi Creek, Daku Creek, Dongmen Creek and Buxin Creek

II. Regional drainage wild creek dredging :

Maintaining and dredging Nankan Creek, Laojie Creek and other river courses, as well as drainage in other areas

III. Hillside conservation management :

Slope control project, wild creeks and ditches renovation project and landslide prevention and control projects

#### **6. Project A-3-1 : Community promotion program of flood disaster prevention**

- (1) Organizer : Department of Water Resources
- (2) Project duration : January 2017 to December 2017
- (3) Total budget : NT\$5,700,000
- (4) Project content :

Conduct counseling for the flood-prone communities in our city, communicate with the them closely, conduct disaster prevention measures together, and assist the community disaster prevention organization

grouping to achieve the purpose of community-based disaster prevention. With the cooperation of the municipal government, professional teams, district offices and local communities, we should jointly initiate the awareness and organizational functions of community-based disaster prevention. We hope that the bottom-up autonomous disaster prevention capabilities will be enhanced and the consensus of all citizens on disaster prevention will be consolidated.

**7. Project A-3-2 : Landslide disaster prevention education and training and advocacy**

- (1) Organizer : Department of Water Resources
- (2) Project duration : January 2017 to December 2017
- (3) Total budget : NT\$450,000
- (4) Project content :

For households in the potential stream area of mudslides, conduct disaster prevention education and training to promote the evacuation effect as early as possible before the disaster strikes. This project is jointly managed by the municipal government and the district offices before the flood season, with a view to increasing the disaster prevention capability of the local hillside areas.

**8. Project A-3-3 : 2017 Deep plowing and continuity program for disaster prevention and relief**

- (1) Organizer : Fire Department
- (2) Project duration : January 2017 to December 2017
- (3) Total budget : NT\$4,600,000
- (4) Project content :

In order to continually enhance the city's energy for disaster prevention and relief, the city has strengthened its response mechanism to all kinds of disasters and perfected the rescue system and operating efficiency so that disaster prevention and rescue work can take root.

**9. Project A-3-4 : Taoyuan City selects a district as a demonstration site for disaster Prevention Park to strengthen the park's disaster prevention capabilities, and then play the basic functions of disaster prevention and rescue**

- (1) Organizer : Department of Public Works
- (2) Project duration : January 2017 to December 2017
- (3) Total budget : NT\$350,000
- (4) Project content :

To conduct the planning of disaster prevention facilities at a demonstration site for a disaster prevention park, and build a complete set of basic information for the parks which have already been included in the disaster prevention program.

**10. Project A-3-5 : By practicing drills at a disaster prevention park, the disaster prevention park will effectively provide disaster victims with emergency shelters in the event of a disaster and serve as a command post for disaster relief units**

- (1) Organizer : Department of Public Works
- (2) Project duration : January 2017 to December 2017
- (3) Total budget : NT\$150,000
- (4) Project content :

Combine with local communities and handle matters related to disaster prevention park exercises.

**11. Project A-3-6 : Enhance disaster prevention capability**

- (1) Organizer : Department of Water Resources
- (2) Project duration : January 2017 to December 2017
- (3) Total budget : NT\$6,500,000
- (4) Project content :

Build a smart disaster prevention and relief system, disaster prevention communities, disaster prevention drills and educational advocacy.

**12. Project A-3-7 : 2017 Taoyuan City Hall annual national defense mobilization (Minan No.3) and disaster rescue exercise**

- (1) Organizer : Fire Department
- (2) Project duration : April 27, 2017

(3) Total budget : NT\$3,100,000

(4) Project content :

On April 27, 2017, Taoyuan Refinery of Refining Division of Taiwan National Petroleum Co., Ltd. was used as a rehearsal site for a toxic chemical material leakage exercise.

### **13. Project A-4-1 : Handling roadside ditch dredge services open contract of 2017**

(1) Organizer : Department of Environmental Protection

(2) Project duration : January 2017 to December 2017

(3) Total budget : NT\$15,000,000

(4) Project content :

I. Handle routine, complained or informed roadside ditch cleaning work in all districts of our city.

II. During the flood control phase, before and after typhoons, and after heavy rains, increase roadside ditch cleaning inspections and cleanings in all flood-prone areas.

III. The total expected dredging length is about 100 km in 2017.

### **14. Project A-4-2 : Strengthening urban flood discharge capacity, and reducing flooding sites**

(1) Organizer : Department of Water Resources

(2) Project duration : January 2017 to December 2017

(3) Total budget : NT\$170,000,000

(4) Project content :

I. Drainage bottleneck improvements: Improve drainage bottleneck.

II. Rainwater sewer construction: Giving priority to the construction of stormwater sewers in flood-prone areas to facilitate the completeness of urban area drainage.

III. Rainwater sewer inspection and dredging: Regularly conduct dredging operations, and the main inspection method is to open the manhole covers and send workers to walk through the sewers. In addition to improving the drainage systems, the inspection results can be used to immediately dredge the sewers to achieve the effect of flood control and disaster reduction.



**15. Project B-1-1 : "Taoyuan Common Pipeline System Master Plan" entrusts planning technical services**

- (1) Organizer : Department of Public Works
- (2) Project duration : January 2016 to December 2018
- (3) Total budget : NT\$350,000
- (4) Project content :  
Review of common pipeline management measures.

**16. Project B-2-1 : Flood control plan in flood-prone areas**

- (1) Organizer : Department of Water Resources
- (2) Project duration :
  - I. January 2017 to December 2018
  - II. April 2016 to June 2018
  - III. July 2015 to December 2018
  - IV. February 2017 to February 2018
- (3) Total budget :
  - I. Xinjie Creek basin development : NT\$187,590,000
  - II. Dongmen Creek basin development : NT\$150,650,000
  - III. Zhongli and Longgang drainage systems : NT\$169,900,000
  - IV. Nankan Creek Zhongxiao West Bridge reconstruction project :  
NT\$180,000,000
- (4) Project content :
  - I. Xinjie Creek basin development :  
According to the previous Xinjie Creek Regulation and Planning Report, the Department of Water Resources had passed the 10-year return period peak flood discharge and the 25-year return period flood control as the protection standards. From 2005 to 2015, the department completed 31 flood control and other related projects in Xinjie Creek with a total funding of NT\$230 million.

In 2016, the department obtained the construction fees and land fees from Water Resources Agency's Comprehensive Basin Management Plan for "Fuzhou Bridge to Meilong Bridge River Widening Project and Trail Project". Upon completion of the project, Zhongli River section of Xinjie Creek to regional drainage will be upgraded to the newest protection standard; in addition, a waterfront walkway park will be built to increase people's leisure space, hoping to create a "safe, livable and LOHAS" waterfront city!

## II. Dongmen Creek basin development :

In order to improve the flooding problem in low-lying area around the Guishan Industrial Park and Dongmen Creek, the overall improvement strategy of Dongmen Creek is the broadening of the downstream bottleneck section, and the flood detention and interception of upper stream. The cases handled this year are as follows:

Taolin Railway (Shanyin Road) Stormwater Sewer Project and Xipo Pond Public Detention Basin Park Project

In addition to enhancing the standard of preservation of Dongmen Creek after the completion of the project, the public living environment and open space will be improved to give people a place to live in peace and establish a solid foundation for local development.

## III. Zhongli and Longgang drainage systems :

In recent years, urban planning areas have been intensively developed. Originally, land for non-urban planning or agricultural areas has been changed to high-density urban planning sites. Changes in land use patterns have resulted in an increased runoff. The current drainage system in Zhongli and Longgang, due to intermittent stormwater infiltration, the drainage channels and ditches in the areas are momentarily unbearable. In addition, multiple drainage bottlenecks in the areas have caused the areas to encounter flooding frequently during heavy rains in recent years.

This year, we planned to carry out "Zhongyuan Pond Ecological Park" and "Zhongli Longgang District Wenhua Village and Qifu Village Lowland Community Drainage Improvement Project" to improve the flooding problems in Zhongli Longgang.

#### IV. Nankan Creek Zhongxiao West Bridge reconstruction project :

The present beam bottom elevation of Zhongxiao West Bridge is below the flood level of 50-year return period; as a result, heavy flooding in the typhoon is likely to flood the embankment and needs to be rebuilt urgently. Zhongxiao West Bridge will be rebuilt by following the function of “flood control-oriented”, “traffic-oriented” and “landscape-oriented”. In addition to satisfying the flood control frequency of 100 years’ return period after the completion of the project, the safety of life and property of the residents can be protected in time. The bridge will use innovative landscape design, and it will become a new landmark of the city.

### **17. Project C-1-1 : Project inspections**

- (1) Organizer : Department of Environmental Protection
- (2) Project duration : February 2017 to February 2018
- (3) Total budget : NT\$45,200,000
- (4) Project content :
  - I. Rapidly performing the case inspection and handling, source investigation, verification and related contingency work after the complaint occurs to prevent the pollution from expanding.
  - II. Through the case investigation and appraisal, monitoring and analysis, counseling diagnosis and scientific evidence collection technology application to improve the purpose of solving the repeated complaints.
  - III. Strengthen the early warning and monitoring of industrial areas, key river basins, sensitive areas and high-risk businesses in our city, and increase the inspection intensity during night time and holiday periods. When abnormal environmental quality is found, illegal pollution behaviors are immediately mastered to mitigate the environmental impact and improve the quality of life.

### **18. Project C-1-2 : Strengthen Taoyuan City’s anti-drought and diversified water resources adaptation action plan**

- (1) Organizer : Department of Water Resources
- (2) Project duration : October 2015 to January 2017
- (3) Total budget : NT\$2,800,000
- (4) Project content :

The project will propose a pond activation program that can be adapted to the social and industrial conditions in Taoyuan to achieve a win-win adjustment action plan between the government and the private sectors. And put forward different diversified water resources programs including surface water, underflow water, subsurface water, and sewage recovery and reuse to strengthen the overall supply capacity of water resources and to lay the foundation for the sustainable development of water resources in Taoyuan.

### **19. Project C-1-3 : Yuanshulin drainage water purification project**

- (1) Organizer : Department of Water Resources
- (2) Project duration : July 2015 to December 2017
- (3) Total budget : NT\$66,691,340
- (4) Project content :

The gravel contact oxidation process of the project is water intake→ coarse trash rack and grit chamber→ flow meter→ gravel contact oxidation tank→ discharge tank. The project has pre-treatment facilities, gravel contact oxidation tank area, sludge storage tank area, discharge tank and other facilities.

### **20. Project C-1-4 : Nankan Creek Daqui Creek Bridge water purification project**

- (1) Organizer : Department of Water Resources
- (2) Project duration : February 2015 to December 2018
- (3) Total budget : NT\$121,371,895
- (4) Project content :

In order to improve the water quality of Nankan Creek and Dongmen Creek, the department planned to perform the gravel water purification project underneath the central lawn of Zhaoyang Forest Park near Dongmen Creek. The gravel contact oxidation process uses natural gravel as filter material, and utilize the biofilm naturally formed by microorganisms in sewage to decompose and nitrify the water pollutants to purify the water quality. After the completion of the project in the future, it will be able to handle 10,000 tons of stream water and ditch cutoff sewage to discharge it back to Dongmen Creek to maintain river instream flow, and part of the purified water will be used for landscape pools. Apart from rehabilitating the park's central lawn, the "eco-pool area", "eco-stream area", "planting fountain area"

and “commentary plaza” will be set up in the area around the lawn with the purified water source to upgrade the park through appropriate transformation and beautification.

**21. Project C-1-5 : Regional drainage renovation and environmental improvement project**

- (1) Organizer : Department of Water Resources
- (2) Project duration : April 2016 to December 2018
- (3) Total budget : NT\$316,000,000
- (4) Project content :  
Three years of Xinjie Creek basin management project includes improvement works, trails and parks.

**22. Project C-1-6 : River basin management plan of pollution remediation**

- (1) Organizer : Department of Environmental Protection
- (2) Project duration : June 2016 to June 2017
- (3) Total budget : NT\$6,420,000
- (4) Project content :
  - I. Conduct rolling review of the key river improvement measures, and track and manage the progress status of remediation goals.
  - II. Assist in the operation of the city’s water pollution prevention fund and its related administrative matters.
  - III. Assist in the integrated management of water pollution control plan.

**23. Project C-1-7 : Implementation management plan for key reiver total pollution amount control**

- (1) Organizer : Department of Environmental Protection
- (2) Project duration : February 2017 to November 2017
- (3) Total budget : NT\$3,740,000
- (4) Project content :
  - I. Track and review the effectiveness of the implementation of the announced farmland pollution irrigation water sources total amount control area around Xinjie Creek and Buxin Creek.
  - II. Assess and promote the total amount control implementation measures of Nankan Creek.

**24. Project C-1-8 : Operation plan for water environment river patrolling**

- (1) Organizer : Department of Environmental Protection
- (2) Project duration : May 2016 to May 2017
- (3) Total budget : NT\$6,786,000
- (4) Project content :
  - I. Promote the establishment and operation mechanism of the water environmental patrol team to publicize environmental education.
  - II. Through continuous investigation and planning of the improvement of the water environment, we can promote the communities, schools, local conservation groups and enterprises within the river basin to join the water environment improvement and sponsor patrol work to enhance water quality.

**25. Project C-2-1 : Proper operation of water recycling center**

- (1) Organizer : Department of Water Resources
- (2) Project duration : January 2017 to December 2017
- (3) Total budget : NT\$83,083,000
- (4) Project content :

Guishan, Fuxing, Shimen and Daxi Water Recycling Centers substitute operation and water recycling center supervision and management.

**26. Project C-2-2: Water pipeline extension funding subsidy program for no tap water areas in Taoyuan City**

- (1) Organizer : Department of Economic Development
- (2) Project duration : January 2017 to December 2017
- (3) Total budget : NT\$50,000,000
- (4) Project content :

Handle water pipeline installation for no tap water areas to provide public water demand.

**27. Project D-1-1 : Study and review the classification criteria of slopeland utilization limit**

- (1) Organizer : Department of Water Resources
- (2) Project duration : January 2017 to December 2017
- (3) Total budget : NT\$1,400,000
- (4) Project content :

Confirm the undesignated land in the utilizable limit classification suitable for agriculture and forestry within the range of slopeland, or it's in non-determination scope to provide the reference basis for the Department of Land Administration when compiling land.

**28. Project D-1-2 : Regularly request each agency to confirm the transaction situations of the city's environmentally sensitive areas and firmly control them**

- (1) Organizer : Department of Land Administration
- (2) Project duration : February 2017 to January 2018
- (3) Total budget : None
- (4) Project content :

In response to major hillside disasters in recent years, based on potential mudslides and serious landslides, the department will regularly request the government authorities in accordance with the relevant plans and data of the central authorities to check and confirm the sensitive areas in our city, and arrange them to Point 3 Appendix 1-2 of Non-Urban Land Use Changes to be included in the preparation of changes and regulatory reference.

**29. Project D-1-3 : Strengthen the reporting and banning of illegal uses or security concern behaviors**

- (1) Organizer : Department of Land Administration
- (2) Project duration : February 2017 to January 2018
- (3) Total budget : None
- (4) Project content :

Request all the power and responsibility authorities actively implement the management of environmentally sensitive areas in accordance with the characteristics of resources and the homeland security. They should strengthen the reporting and banning of major violations or influence behaviors and carry out subsequent recovery activities.

**30. Project D-2-1 : Making the city's national land plan**

- (1) Organizer : Department of Urban Development
- (2) Project duration : January 2017 to December 2020
- (3) Total budget : NT\$8,000,000
- (4) Project content :

Study and plan our city's national land plan in accordance with the provisions of the Spatial Planning Act, including the plan for space development and growth management, the zoning of land function and its design and adjustment of classification, the principle of land use control, departmental space development plan, climate change adaption plan and others.

**31. Project D-2-2 : Coordinate with river confine planning to carry out division zoning and changes, and increase the degree of regulation**

- (1) Organizer : Department of Land Administration
- (2) Project duration : February 2017 to January 2018
- (3) Total budget : None
- (4) Project content :



In line with the contents of the central and municipal control river area delimitation announcement, the use of land in the area will be zoned and changed to river confines to increase the degree of control by zoning and to implement the concept of environmentally sensitive areas.

**32. Project D-3-1 : Study and propose rainwater or domestic wastewater recycling equipment higher than the technical regulations of new building planning**

- (1) Organizer : Department of Urban Development
- (2) Project duration : June 2017 to December 2017
- (3) Total budget : None
- (4) Project content :

Study and propose those who plan to build a new building at a certain size or for a specific purpose above the provisions of the technical regulations should plan rainwater or domestic wastewater recycling equipment.

**33. Project D-3-2 : Hierarchical monitoring of large hillside communities**

- (1) Organizer : Department of Urban Development
- (2) Project duration : January 2017 to December 2017
- (3) Total budget : NT\$1,000,000
- (4) Project content :
  - I. Appoint professional monitoring vendors and professional technicians to select monitoring points and methods.
  - II. Through objective monitoring data from hillside communities, we can be able to conduct hierarchical management.

**34. Project D-4-1 : For urban renewal and development planning, those who have made contributions to the obtaining of Green Building Label and the overall planning and design will be given a bulk reward for urban renewal once passed the review**

- (1) Organizer : Department of Urban Development
- (2) Project duration : None
- (3) Total budget : None
- (4) Project content :

After being examined and approved by the urban renewal review and dispute resolution committee of the city, a bulk reward will be given to the

one who promotes environmental blending and effectively reduces the impact of the building on the environment :

- I. To the urban renewal unit building which obtains Green Building Label.
- II. To one's overall planning and design has made contributions to urban environmental quality, landscape, and disaster prevention.

**35. Project D-4-2 : Handling overall review operations of the city's urban planning areas**

- (1) Organizer : Department of Urban Development
- (2) Project duration : January 2017 to December 2022 (review every 5 years)
- (3) Total budget : None
- (4) Project content :

In the overall review of urban planning, climate change should be considered, and based on the history, characteristics and disaster potential situation of urban disasters, land use zoning or control should be properly adjusted.

**36. Project E-1-1 : 2016-2017 Basic survey plan and ecological education promotion of important wetland (national) in Xucuogang**

- (1) Organizer : Department of Agriculture
- (2) Project duration : November 2016 to December 2017
- (3) Total budget : NT\$1,800,000
- (4) Project content :

The Department cooperated with the Construction and Planning Agency of the Ministry of the Interior in handling the "2016-2017 Annual Basic Survey of Important Wetland at the World and National Level" to establish ecological information on wetlands.

**37. Project E-1-2 : Drafting plan of Taoyuan City coastal ecological protection white paper**

- (1) Organizer : Department of Environmental Protection
- (2) Project duration : June 2015 to June 2017
- (3) Total budget : NT\$7,795,000

- (4) Project content :
- I. Completed the city's survey of coastal ecology and prepared the " Taoyuan City Coastal Ecological Protection White Paper" to limit the development activities and prevent marine pollution, protect sensitive natural ecosystems and implement coastal algae reef conservation work.
  - II. Produced a digital copy of Taoyuan City Coastal Ecological Protection White Paper and published it on the public website for reference by all walks of life.

**38. Project E-2-1 : 2016-2017 Annual water pollution emergency response plan of Taoyuan City**

- (1) Organizer : Department of Environmental Protection
- (2) Project duration : August 2016 to January 2018
- (3) Total budget : NT\$2,890,000
- (4) Project content :
  - I. Water pollution emergency treatment.
  - II. Handling education training and equipment training of water pollution incident emergency response.
  - III. Handling equipment maintenance of water pollution incident emergency response.
  - IV. Holding quarterly water quality monitoring operations.

**39. Project F-1-1 : Making the guidelines for Taoyuan City low-carbon technology industry subsidies and rewards**

- (1) Organizer : Department of Economic Development
- (2) Project duration : March 2017 to December 2017
- (3) Total budget : NT\$5,000,000
- (4) Project content :

Subsidize city businesses' upgrade costs for carrying out energy-saving projects, purchasing major energy-saving equipment and adopting energy-saving technologies and anti-fouling equipment.

**40. Project F-2-1 : Local industry innovative research and development promotion plan**

- (1) Organizer : Department of Economic Development
- (2) Project duration : March 2017 to December 2018
- (3) Total budget : NT\$22,500,000
- (4) Project content :  
Encourage SMEs to develop and output innovative products or services through substantive subsidies.

#### **41. Project F-3-1 : Encourage the closed landfills to set up solar power systems**

- (1) Organizer : Department of Environmental Protection
- (2) Project duration : October 2016 to December 2018
- (3) Total budget : None
- (4) Project content :
  - I. The fulfillment of the case of “Taoyuan City public landfill lease by tender for setting up solar photovoltaic power generation system” began on October 25, 2016.
  - II. 3 MW of power generation capacity will be set before the end of 2017, and 1.5 MW power generation capacity will be set before the end of 2018. A total of 4.5 MW of solar photovoltaic power generation equipment will be placed in eight landfills.

#### **42. Project G-1-1 : Taoyuan City 2017 annual agricultural production supplies grant project**

- (1) Organizer : Department of Environmental Protection
- (2) Project duration : January 2017 to December 2017
- (3) Total budget : None
- (4) Project content :  
In order to facilitate the smooth operation of farm machinery for farmers in the farmhouse period, this project, therefore, studied and suggested to assist farmers in upgrading their production facilities, processing equipment and purchasing agricultural machinery for automation so as to reduce farmers' purchase cost and enable modern agricultural machinery to engage in agricultural work and increase harvest efficiency and output, and thus enhance farmers' income.

Production facilities subsidy criteria :

- I. Horizontal scaffolding screen house : 1 hectare per household, and the maximum subsidy is NT\$150,000.
- II. Simple plastic screen house : 1 hectare per household, and the maximum subsidy is NT\$170,000.
- III. Winch plastic screen house : 0.5 hectare per household, and the maximum subsidy is NT\$300,000 per 0.1 hectare.

**43. Project G-2-1 : Improving temperate breed cows to adapt to high heat environment**

- (1) Organizer : Department of Agriculture
- (2) Project duration : January 2017 to December 2017
- (3) Total budget : NT\$160,000
- (4) Project content :
  - I. Subsidize the city's livestock farms to purchase 250 doses of imported elite cattle semen.
  - II. Since the dairy cattle breed is mainly from Dutch, which is suitable for the temperate zone, therefore, the department managed to improve the dairy cows' original species to withstand the extreme environment such as heat tolerance, drought tolerance and waterlogging.

**44. Project G-3-1 : Cooperate with the afforestation policy of Forestry Bureau of Council of Agriculture of Executive Yuan to handle related afforestation programs**

- (1) Organizer : Department of Agriculture
- (2) Project duration : January 2017 to December 2017
- (3) Total budget : None
- (4) Project content :

In line with the afforestation subsidy program of Forestry Bureau of Council of Agriculture of Executive Yuan, the total afforestation area is 421.4211 hectares.

**45. Project G-3-2 : Census operations of protected trees**

- (1) Organizer : Department of Agriculture
- (2) Project duration : January 2017 to December 2017

(3) Total budget : NT\$500,000

(4) Project content :

Appointed professional contractor to handle a census of the city's trees, and to regularly inspect and maintain precious old trees.

**46. Project G-3-3 : Promoting afforestation work, and publicizing the distinctive tree species in each district**

(1) Organizer : Department of Agriculture

(2) Project duration : January 2017 to December 2017

(3) Total budget : None

(4) Project content :

I. The project is to jointly promote the planting and afforestation programs through various government agencies, using the public and private idle land to create urban forests, enhance urban living environment and quality, improve urban ecology, increase neighborhood recreation areas, and build up green living surroundings.

II. Use the public and private idle land to plant local distinctive tree species to provide public recreation areas.

**47. Project G-4-1 : Biodiversity promotion and invasive species removal**

(1) Organizer : Department of Agriculture

(2) Project duration : January 2017 to December 2017

(3) Total budget : NT\$300,000

(4) Project content :

Conduct educational training courses and reinforce the concept of invasive species to reduce the loss of biodiversity.

**48. Project H-1-1 : Dengue fever breeding sources cleanup program**

(1) Organizer : Department of Public Health

(2) Project duration : April 2017 to October 2017

(3) Total budget : None

(4) Project content :

Request all public health centers in line with environmental inspection squadrons, chiefs of village or district officers to patrol the city's 495 villages. Their jobs are to inspect each community and remove or reduce stagnant water from containers, and provide health education to the local people to reduce the risk of dengue infection.

**49. Project H-1-2 : 2017 Annual vector control spraying services open contract**

(1) Organizer : Department of Environmental Protection

(2) Project duration : April 2017 to December 2017

(3) Total budget : NT\$15,004,000

(4) Project content :

Conduct the city's vector control management to handle the situations such as the disturbance of *Forcipomyia taiwana* (environmental facilities), floods after natural disasters and other special needs by appointed the vector control vendors to perform environment spraying operations in Taoyuan City's public areas, and expect to reduce mosquito nuisance, vector breeding problems and improve people's quality of life.

**50. Project H-2-1 : Work in coordination with the Ministry of Education to handle "Campus Disaster Prevention Construction Plan for Senior High Schools and Below"**

(1) Organizer : Department of Education

(2) Project duration : January 2017 to December 2017 (execute annually)

(3) Total budget : NT\$4261,350

(4) Project content :

Select 25 schools of the city to perform category one campus disaster prevention construction plan, and participating schools need to prepare campus disaster prevention equipment and supplies, revise disaster prevention maps and plans, handle disaster prevention lectures and conduct disaster prevention drills.

**51. Project H-2-2 : Implementation plan of Taoyuan City 2016 annual division disaster prevention education seminar**

(1) Organizer : Department of Education

(2) Project duration : January 2017 to December 2017 (execute annually)

(3) Total budget : NT\$142,600

(4) Project content :

Conduct 4 sessions of disaster prevention education enhancement for teachers, invite external experts to advocate the concept of disaster prevention and ask outstanding disaster prevention schools to share their experience.

## **52. Project H-2-3 : Community epidemic prevention network project**

(1) Organizer : Department of Public Health

(2) Project duration : January 2017 to December 2017

(3) Total budget : NT\$7,551,000

(4) Project content :

Conduct post-disaster infectious disease epidemic surveillance and prevention, regularly hold infectious disease prevention related education training and promotions, and enhance the city's epidemic prevention staff and strength public awareness of epidemic prevention related knowledge.