

園大圳是在同一時間進行的臺灣的水利建設，不同空間裡進行規劃與設計；而且兩種工程的屬性完全不同，一個是農田的灌溉排水，一個是城市的自來水與污水涵管，兩個都是龐大無比的工程，一個『人』（指的是總督府派令的水利工程師八田與一）不可能同時做這兩件工程。」。

由於桃園大圳讓整個舊屬桃園縣地區（除了復興鄉山區以外）農田都能得到充足的灌溉水需求，甚至可以支援新竹縣湖口鄉的水利所需，實在是一樁貢獻很大且意義非凡的重大水利工程。在民國 44 年政府投資興建石門水庫計畫之前，桃園大圳可以說是民生動脈。

從民國 13 完工後，桃園大圳其實在面臨臺灣多地震颱風的大自然考驗，歷史有過多次修葺記載，比較重大的有：民國

16 年旱季的時候，涵洞崩塌，當時就以紅磚為建材重新鋪陳；民國 44 年光復後屆滿十年，政府進行遠東最大的水壩工程—石門水庫興建完成後，桃園大圳的起頭取水口，也從原本日本工程師設計的龍潭地區的依山閣，改到石門水庫的後池堰；最近的一次盤點整修，則是臺灣農田水利會特別在民國 91 年編列預算整修了總長 200 公尺的五座陸上水橋。

桃園大圳是日據時代就已經有的水利建設，就算桃園地區目前已經轉型為工商重鎮，對桃園地區的整體發展而言，今天仍居重要地位。🌊

參考資料

1. 《臺灣桃園農田水利會百年誌》民國 108 年 10 月 桃園農田水利會



▲ 石門大圳系統布置圖。(經濟部北區水資源局提供，游常山翻攝)



▲ 桃園大圳的興建串連了桃園地區的民生動脈。(經濟部北區水資源局提供，游常山翻攝)



代步新趨勢—電動車

New Trend Electric Vehicles

文、圖 / Kenny

基於空氣品質的 PM2.5 含量過高，為了我們居住的環境，以及個人健康因素考量，我們需要找到一些能夠改善空氣品質的方法。尤其是最近，罹患肺癌病患數目與日俱增，此等皆反映了我們對於良好空氣品質的迫切需求。所以，我們的政府提供相當多的補助經費來鼓勵人們購買電動汽機車，期望能改善汽機車排放廢氣的汙染問題。讓我們一起來看看，我們到底多需要電動汽機車的普及化來拯救我們的肺吧。

The PM2.5 level in air is too high. For the sake of our health and living environment, we should find ways to make the air cleaner. Recently, the number of lung cancer patients has been growing sharp, a fact that reflects how much we need clean air. As a result, our government has provided many subsidies to encourage people to buy electric vehicles, hoping to improve pollutions caused by vehicle emissions. Let's see how urgent do we need electric vehicles to become popular in order to save our lungs.

One day, a group of youth starts to cough and have a hard time. Look! The smog is throughout the sky. People's visibility is bad in the city.

(有一天，一群年輕人開始很頻繁的咳嗽，抬頭看看整片霧茫茫的天空。大家的視線都不是太好。)

A : You should all wear masks.

(你們都需要戴上口罩。)

J : I can't stop coughing.

(我沒辦法停止咳嗽。)

S : We need to go to a doctor.

(我們都需要去看個醫生。)

K : What is it?

(那是什麼?)

Dr.T : It's your lungs.

(這是你們的肺啊。)

Dr.T : The vehicles produce harmful gases which not only pollute the air but also hurt our lungs.

(車輛會排出很多有害的氣體，不僅會污染空氣品質，也會造成我們的肺傷害)

Don't make our lungs a filter.

別把我們的肺當成空氣濾淨機。

S : Oil-operated vehicles produce gases harmful to our bodies and living places.

(以汽油為燃料的車輛會產生有害氣體，對於身體和生活環境都會造成傷害。)



Dr.T : The gases emitted out from the vehicles' pipes include NO₂, CO, CO₂, H₂S, and so on. Those gases are unfriendly to our environment.

(從汽機車排氣管中排放出的氣體為二氧化氮、一氧化碳、二氧化碳、硫化氫等等。那些都是對環境不友善的氣體。)



After realizing what the problem is, they go to their friend, Dr.K for help.

(在他們了解問題之後，他們跑去找 K 博士來幫忙解決問題。)

K : We need fresh air.

(我們需要新鮮的空氣。)

K : Please save us.

(拜託救救我們。)



Dr.K comes out with an idea. He swings the magic wand in his hands and makes all the oiloperated vehicles turn out to be battery-powered electric ones.

(K 博士想到一個主意，他揮揮手中的魔杖，讓所有汽油驅動的車輛都變為使用電池的電動車。)

J : I love the air.

(我愛這樣的空氣。)

K : No smog anymore.

(已經不再霧茫茫了。)

S : All the vehicles become electric ones. They are operated with batteries instead of gasoline.

(所有的車輛都變成電動的，都是靠電池來驅動的，而不是汽油。)



K : No more coughing.
(不會咳嗽了唷。)

S : It's an app-based electric scooter sharing system. We can easily access it with internet service. Most importantly, it is an eco-friendly policy, and our lungs will not be that black anymore.
(這是一個以 APP 為基礎來操作的電動機車共享系統。有網路的話，我們就可以簡單的完成出租的動作。最重要的是，它是一個對於環境友善的政策，我們肺也不會那麼黑了。)

K : The government even designs parking spaces exclusively for electric scooters.
(我們的政府還特別為了電動機車設計了專屬停車格呢。)

J : Behind me is a battery station. When an electric scooter is running out of power, you can get a fully-charged battery here.
(我後方是一座電池管理站，電動機車快沒有電的時候，可以到這裡換上一個充飽電的電池。)

S : The air is so clean. I hate PM2.5.
(空氣真的很乾淨。我討厭 PM2.5。)

Word Bank

1.patient (n.) (病人)

→ Particulate matter 2.5 (PM2.5) has become a public concern in Taiwan.
(PM2.5 已經在臺灣成為一個公共議題了。)

2.growing sharp (adj.) (快速增加)

→ The housing price grew sharp in the past few years, but now it seems to slow down a bit.
(房價在過去幾年內迅速飆升，但現在看起來卻是呈現趨緩的狀態。)

3.electric vehicle (n.) (電動車輛)

→ Our government provides subsidies to encourage people to purchase electric vehicles.
(我們的政府提供許多補助，是為了鼓勵人們購買電動車輛。)

4.cough (v.) (咳嗽)

→ If you have been coughing for more than three days, you should go to a doctor.
(如果你已經連續咳嗽超過三天，你該去看醫生了。)

5.smog (n.) (霧茫茫 _ 空氣品質導致)

→ The dense smog makes the air toxic.
(這片濃霧讓空氣變得有害。)

6.harmful (adj.) (有害的)

→ Eating too much fast food is harmful to our health.
(吃太多速食對身體是有害的。)

7.pollute (v.) (汙染)

→ The wastewater released out to the river pollutes the river badly.
(排入河流的廢水，嚴重汙染了整條河川。)

8.filter (n.) (濾器)

→ She has no filter, so she always makes people feel uncomfortable while talking.
(她口無遮攔，所以當她在和別人說話時，總是讓對方覺得不舒服。)

9.oil-operated (adj.) (以汽油為燃料的)

→ Oil-operated vehicles cause air pollution while operating.
(以汽油為燃料的車輛在運行時會造成空氣污染。)

10.battery-powered (adj.) (電池驅動的)

→ The electric vehicles are battery-powered.
(電動車都是利用電池來驅動的。)

11.electric scooter sharing system (n.) (電動機車共享系統)

→ The electric scooter sharing system has been built in Taipei City.
(電動機車共享系統已經在臺北建立完成。)

12.eco-friendly (adj.) (環境友善的)

→ The zero-waste policy is an eco-friendly policy.
(零浪費政策是屬於環境友善的政策。)

13.parking space (n.) (停車位)

→ I am looking for a parking space.
(我正在找停車位。)

14.battery station(n.) (電池管理站)

→ When the electric scooter shows low power, you should go to a battery station to get a fully-charged battery.
(當電動機車呈現低電量的狀態，你應該要去電池管理站換上一顆充飽電的電池。)