

Section 2 Environmental Payments to the Government (including permits for using natural resources)

During the course of economic development, natural resources may be acquired to be input into production; or pollution in the form of wastes and emissions may be generated during the manufacturing process. The use of natural resources or the emission of pollutants, if not properly curbed, will lead to the depletion of environmental resources or harmful impacts on environmental quality. In order to facilitate the sustainable utilization of environmental resources, aside from adopting direct administrative control measures to protect the environment and manage & use resources, the government may use a variety of economic tools to accomplish this mission. These tools include environmental taxes; rent; fees; fines; penalties; tradable emission permits or quotas; the deposit-refund system; and environmental subsidies/fines. This is in order to implement the principles of "User Pays" for environmental media or resources, as well as "Polluter-Pays".

As the application of environmental taxes becomes more and more diversified, these taxes carry double benefits for the environment and the economy and act as one of the most important policy tools. Moreover, as the amount of data on environmental taxes tends to be relatively large, and acquisition and cross-referencing among different nations is relatively feasible, environmental taxes have become the focus in discussions by international organizations such as the OECD, EU, etc. However, SEEA 2012 adjusted the statistical scope, by integrating and combining the documentation of environmental taxes, rent, fees, fines and penalties into Environmental Payments to the Government. See the table below for an explanation of definitions:

Table 1.4.2.1 Environmental payments to the government

Item	Definition / explanation
Environmental taxes	Taxes are levied on physical material units proven to be harmful to the environment ¹ . The definition of "tax" is similar to the concept of national income statistics, meaning compulsory payments paid to the government without compensation.
Rent	Revenue received by the owner (usually the government) of environmental assets (such as land and mineral & energy resources) from selling disposal rights of such assets to another entity. This is different from rental fees paid by the user of a fixed asset (such as buildings, facilities, vehicles, etc.) to the asset owner.
Fees	The fees users pay to the government when it provides products or services to households and enterprises.
Fines & penalties	Compulsory payments are imposed on entities by courts or quasi-judicial institutions for the illegal use of/activities held on environmental assets.

In reference to the aforementioned definitions and taking into account Taiwanese people's habit of mixing taxes with fees, we have expanded the statistical scope from environmental taxes to Environmental Payments to the Government. These are generally divided into four major categories: energy, transportation, pollution, and resources. The energy category includes the energy products used on transport and stationary use. The transportation category refers to the ownership and usage of motorized transportation vehicles, and the pollution category primarily deals with the management of air emissions, water emissions, solid wastes, and noise. The resource category currently refers in general to drafting of water, as well as the exploitation of resources such as sand gravel, primary raw materials, forests, minerals, etc.

In 2016, environmental payments to the government amounted to NTD 315.20 billion in Taiwan, down 1.4% from 2015. The transportation category was foremost with NTD 199.45 billion, 63.3% of the total; this was followed by the energy category with NTD 93.59 billion, 29.7% of the total. These two aggregated accounted for 93% of the total. The pollution category and the resource category contributed NTD 21.53 billion and NTD 0.62 billion, accounting for 6.8% and 0.2% of the total, respectively.

¹ In principle, value-added tax (VAT) is excluded from the definition of environmental taxes, primarily because it is levied on nearly all products (with a few exceptions). In addition, it is deductible for most manufacturers. Therefore, it impacts related prices only with difficulty. Moreover, even though a handful of countries may have designed their own value-added tax systems for the purpose of environmental maintenance, there is still dispute as to whether or not this tax should be included in the context of environmental tax statistics.

Table 1.4.2.2 Environmental payments to the government and structure ratio

Unit: million NT\$, %

	2014		2015		2016	
		Structure ratio		Structure ratio		Structure ratio
Total	299,114	100.0	319,542	100.0	315,197	100.0
Energy category	88,719	29.7	90,925	28.5	93,592	29.7
Transportation category	189,439	63.3	207,840	65.0	199,453	63.3
Pollution category	20,187	6.7	20,149	6.3	21,533	6.8
Resource category	769	0.3	628	0.2	619	0.2

I . Energy category

In 2016, payments made within the energy category were NTD 93.59 billion, up 2.9% from 2015. Commodity taxes for oil and gas were the foremost of these, at NTD 92.61 billion, accounting for 99.0% of payments under the energy category. Energy-related oil funds and tariffs each amounted to NTD 0.64 billion and NTD 0.34 billion, accounting for only 0.7% and 0.4% of the total, respectively.

Table 1.4.2.3 Energy category and structure ratio

Unit: million NT\$, %

	2014		2015		2016	
		Structure ratio		Structure ratio		Structure ratio
Energy category	88,719	100.0	90,925	100.0	93,592	100.0
Tariffs under the energy category	610	0.7	597	0.7	340	0.4
Commodity taxes under the oil and gas category ①	87,617	98.8	89,897	98.9	92,612	99.0
Oil funds under the energy category	492	0.6	431	0.5	640	0.7

Note: ① Items calculated and listed include gasoline, diesel oil, kerosene, jet fuel, fuel oil, liquefied petroleum gas (LPG), etc.

II . Transportation category

In 2016, payments made within the transportation category amounted to NTD 199.45 billion, down 4.0% from 2015. Vehicle commodity taxes formed the largest portion of these, at NTD 67.85 billion, 34.0% of payments under the transportation category. This was followed by vehicle license taxes and vehicle fuel fees, at NTD 63.02 billion and NTD 42.64 billion, accounting for 31.6% and 21.4% of the total, respectively. Tariffs for transportation vehicles amounted to NTD 25.95 billion, accounting for only 13.0% of the total.

Table 1.4.2.4 Transportation category and structure ratio

Unit: million NT\$, %

	2014		2015		2016	
		Structure ratio		Structure ratio		Structure ratio
Transportation category	189,439	100.0	207,840	100.0	199,453	100.0
Transportation vehicle tariffs	19,415	10.2	23,827	11.5	25,951	13.0
Vehicle commodity taxes	63,854	33.7	71,092	34.2	67,849	34.0
Vehicle license taxes	59,326	31.3	61,679	29.7	63,016	31.6
Vehicle fuel fees	46,844	24.7	51,242	24.7	42,637	21.4

III. Pollution category

In 2016, payments made within the pollution category amounted to NTD 21.53 billion, up 6.9% from 2015. Major sources were air pollution control fees, at NTD 7.83 billion; recycling fees, at NTD 7.38 billion; and municipal waste clearance and treatment fees, at NTD 4.93 billion. These three aggregated accounted for 93.5% of payments within the pollution category. Soil and groundwater pollution remediation fees and aviation noise control fees were small by comparison, at NTD 0.94 billion and 0.23 billion, accounting for only 4.4% and 1.1% of the total, respectively. In addition, about the inquiries of water pollution prevention and control fees was beginning in May, 2015. Their collection are divided into three stages: the first (from 2015 to 2016), the target at enterprises (excluding animal husbandry) and industrial park sewage systems; the second (2017), including animal husbandry; the third (2018), adding to the requisitions from public sewage systems, dedicated sewerage systems in other appointed districts or sites, community sewage systems, and households. In 2015 and 2016, water pollution prevention and control fees amounted to NTD 0.05 billion and 0.24 billion, respectively.

Table 1.4.2.5 Pollution category and structure ratio

Unit: million NT\$, %

	2014		2015		2016	
		Structure ratio		Structure ratio		Structure ratio
Pollution category	20,187	100.0	20,149	100.0	21,533	100.0
Air pollution control fees	7,398	36.6	7,042	35.0	7,826	36.3
Water pollution prevention and control fees	—	—	53	0.3	237	1.1
Soil and groundwater pollution remediation fees	959	4.8	920	4.6	937	4.4
Recycling fees	6,848	33.9	7,091	35.2	7,378	34.3
Municipal waste clearance and treatment fees	4,778	23.7	4,828	24.0	4,929	22.9
Aviation noise control fees	204	1.0	216	1.1	226	1.1

Note: About the inquiries of water pollution prevention and control fees was beginning in May, 2015.

IV. Resource category

In 2016, payments made within the resource category amounted to NTD 0.62 billion, down 1.4% from 2015. Major sources were mineral royalties, at NTD 0.42 billion, and quarrying permit & usage fees, at NTD 0.18 billion. These accounted for 67.5% and 29.5% of payments within the resource category, respectively. Mineral rights fees came in at only NTD 0.02 billion, only 3.0% of the total.

Table 1.4.2.6 Resource category and structure ratio

Unit: million NT\$, %

	2014		2015		2016	
		Structure ratio		Structure ratio		Structure ratio
Resource category	769	100.0	628	100.0	619	100.0
Mineral rights fees	23	3.0	21	3.4	19	3.0
Mineral royalties	529	68.8	507	80.7	418	67.5
Quarrying permit & usage fees	216	28.1	100	15.9	183	29.5

Table 1.4.2.7 Data source for Environmental payments to the government

Categories	Items	Data source	Categories	Items	Data source
Energy category	Tariffs under the energy category	Directorate General of Customs, Ministry of Finance	Transportation category	Transportation vehicle tariffs	Directorate General of Customs, Ministry of Finance
	Commodity taxes under the oil and gas category	Department of Statistics, Ministry of Finance		Vehicle commodity taxes	Department of Statistics, Ministry of Finance
	Oil funds under the energy category	Bureau of Energy, Ministry of Economic Affairs		Vehicle license taxes	Department of Statistics, Ministry of Finance
			Vehicle fuel fees	Ministry of Transportation and Communications	
Pollution category	Air pollution control fees	EPA and local governments	Resource category	Mineral rights fees	Bureau of Mines of the Ministry of Economic Affairs
	Soil and groundwater pollution			Mineral royalties	Bureau of Mines of the Ministry of Economic Affairs
	Recycling fees			Quarrying permit & usage fees	Water Resources Agency of the Ministry of Economic Affairs
	Municipal waste clearance and treatment fees				
	Aviation noise control fees				