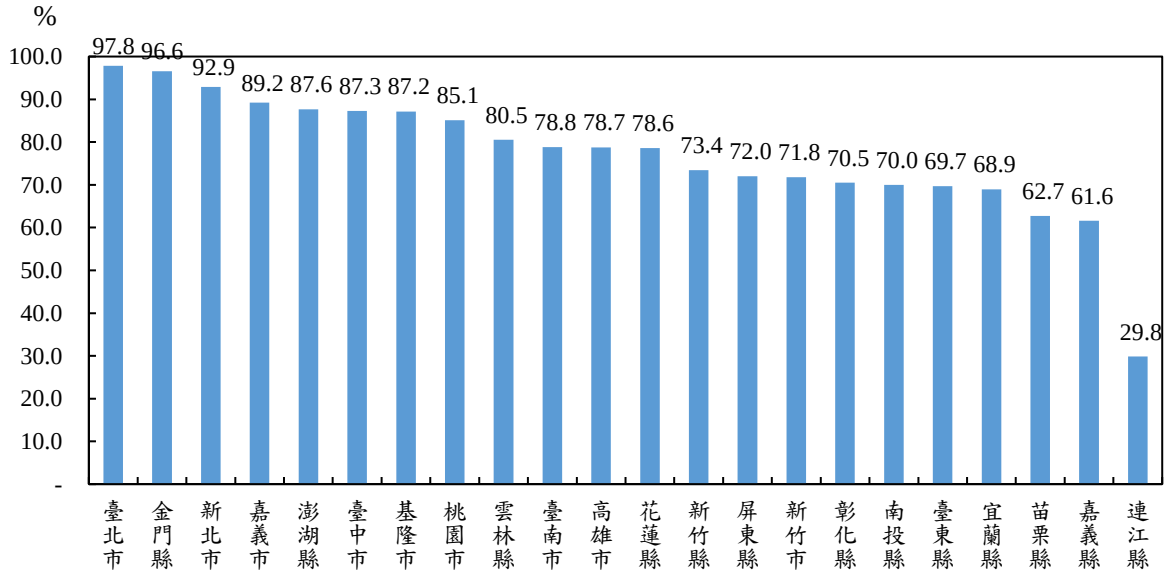
下水道系統之規劃與建設

一、雨水下水道建設

114 年底臺灣地區雨水下水道工程累計規劃幹線長度為 6,948 公里，已完成建設 5,694 公里。若以建設幹線總長度占規劃幹線總長度之比例計算實施率，114 年底臺灣地區雨水下水道建設實施率達 82.0%；其中臺北市實施率 97.8%、金門縣實施率 96.6%、新北市實施率 92.9%、嘉義市實施率 89.2%、澎湖縣實施率 87.6%、基隆市實施率 87.2%、桃園市實施率 85.1%、臺中市實施率 87.3%、雲林縣實施率 80.5%、臺南市實施率 78.8 %、高雄市實施率 78.7 %、新竹縣實施率 73.4%、新竹市實施率 71.8%、彰化縣實施率 70.5%、花蓮縣實施率 78.6%、屏東縣實施率 72.0%及南投縣實施率 70.0%，其他縣市都低於七成，有待持續加強建設(詳圖 1 及附表 5-1)。

圖 1 雨水下水道建設實施率

民國 114 年底



二、污水下水道建設

污水下水道係指專供處理家庭污水及事業廢水之下水道，整體污水處理率包括公共污水下水道普及率、專用污水下水道普及率（指規模 100 戶或 500 人以上之社區、工業區）及建築物污水處理設施設置率。污水下水道建設被視為都市現代化程度之重要指標，瑞士洛桑管理學院全球國家競爭力評估報告(IMD)中，污水下水道普及率被列入生活品質評比項目之一，政府也將污水處理率列為污水下水道建設衡量績效指標。

（一）污水處理率

近年少子化等環境變遷因素影響，致每戶平均人口數（戶量）逐年減少。依內政部戶政司資料顯示 103 年底全國戶量僅為 2.8 人，原以戶量「每戶 4 人」推算「公共污水下水道用戶接管普及率」及「污水處理率」之計算基準已不符實際，有關「污水下水道第五期建設計畫(104-109 年度)」業於 103 年 9 月 10 日奉行政院核定，案內修正「公共污水下水道用戶接管普及率」及「污水處理率」二項指標之計算方式，原以「戶數」為統計單位修改為「人口數」。即：實際服務人口數÷總人口數=(實際服務戶數×戶量)÷總人口數，其中全國部分以當期全國戶量計算，縣市部分以該縣市當期戶量計算。

114 年底，全國整體累積污水處理戶數為 696 萬 2,437 戶，污水處理率為 70.82%，較上（113）年底 70.98%減少 0.16 個百分點；其中公共污水下水道用戶接管戶數為 421 萬 5,164 戶，普及率為 42.88%，較上年底 42.82%增加 0.06 個百分點；專用污水下水道用戶接管戶數為 90 萬 3,353 戶，普及率為 9.19%，較上年底之 9.31%減少 0.12 個百分點；建築物污水處理設施設置戶為 184 萬 3,920 戶，設置率為 18.76%，較上年底之 18.86%減少 0.1 個百分點。就縣(市)別觀之，污水處理率以新北市最高(92.54%)，其次依序為臺北市(89.75%)、新竹縣(83.9%)、高雄市(77.2%)、基隆市(75.0%)、桃園市(73.75%)、臺中市(72.86%)、新竹市(72.01%)、臺南市(65.56%)、連江縣(62.05%)、宜蘭縣(57.35%)、及苗栗縣(53.78%)，其餘縣市均未達 50%。污水處理量(CMY)為 13 億 5,849 萬噸，較上年增加 1.97%，以新北市 5 億 1,338 萬噸最高、高雄市 3 億 1,038 萬噸次之及臺北市 2 億 1,664 萬噸再次之(詳表 1、表 2、圖 2 及附表 5-2)。

表 1　污水下水道執行概況

年別	整體污水處理率(%)				污水處理量(萬噸/年)
	合計	公共污水下水道普及率	專用污水下水道普及率	建築物污水處理設施設置率	
110 年底	66.93	39.78	9.77	17.38	130,846
111 年底	68.65	41.26	9.68	17.71	181,777
112 年底	70.02	42.14	9.24	18.63	131,930
113 年底	70.98	42.82	9.31	18.86	133,218
114 年底	70.82	42.88	9.19	18.76	135,849
114 年底較 113 年底增減百分比(點)	**-0.16**	**0.06**	**-0.12**	**-0.1**	**1.97**

備　　註：

1. 100-102 年之普及率及處理率計算方式係依據「污水下水道普及率相關參數及計算公式座談會」研商共議，分母之戶數係依戶政資料總人口除以假設每戶四人而得，其計算公式為：接管戶數(設置戶數)÷(年底人口數÷4)。
2. 自 103 年起普及率及處理率計算方式係依據污水下水道第五期建設計畫修正以接管戶數乘以各縣市戶量除以各縣市總人口數而得，其計算公式為：實際服務人口數÷總人口數=(實際服務戶數x戶量)÷總人口數，其中全國部分以當期全國戶量計算，縣市部分以該縣市當期戶量計算。

圖 2 污水下水道處理率

民國 114 年底

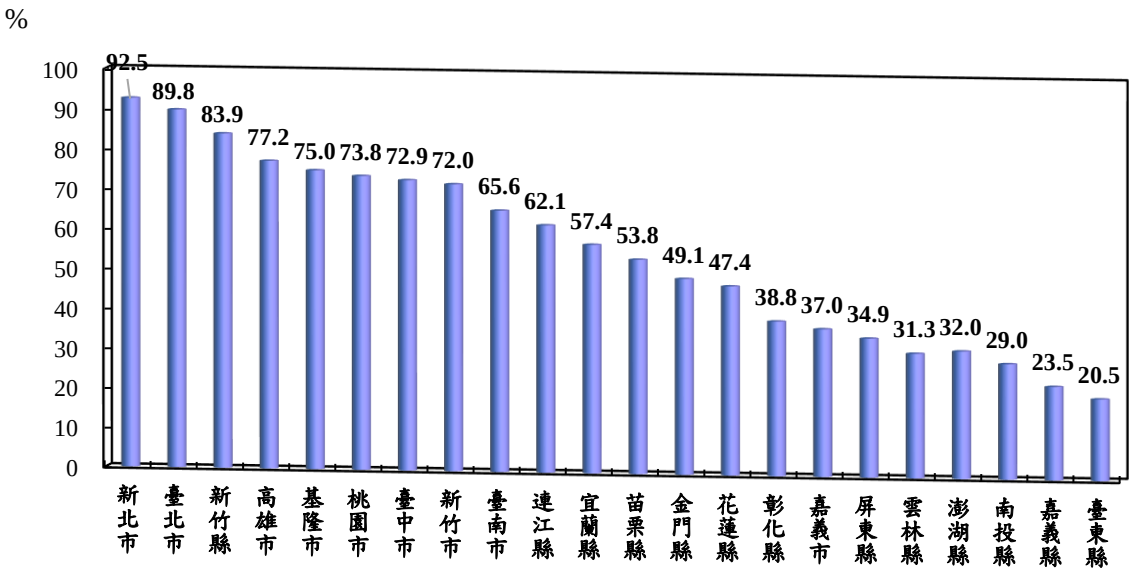


表 2　各縣市污水下水道執行概況

民國 114 年底

年別	整體污水處理率(%)				污水處理量(萬噸/年)
	合計	公共污水下水道普及率	專用污水下水道普及率	建築物污水處理設施設置率	
總　計	**70.82**	**42.88**	**9.19**	**18.76**	**1,358,486,994**
新北市	**92.54**	**71.22**	**14.23**	**7.08**	**513,379,961**
臺北市	**89.75**	**88.92**	**0.08**	**0.75**	**216,641,180**
桃園市	**73.75**	**28.00**	**22.21**	**23.54**	**54,542,732**
臺中市	**72.86**	**27.55**	**13.25**	**32.06**	**72,487,381**
臺南市	**65.56**	**29.50**	**7.09**	**28.97**	**71,773,521**
高雄市	**77.20**	**51.09**	**2.23**	**23.88**	**310,375,404**
宜蘭縣	57.35	34.36	5.53	17.45	20,672,761
新竹縣	83.90	30.66	20.12	33.12	17,421,620
苗栗縣	53.78	28.44	4.33	21.01	11,280,384
彰化縣	38.80	4.60	3.67	30.53	4,711,901
南投縣	28.98	10.59	1.75	16.65	8,864
雲林縣	31.25	5.33	2.06	23.86	5,227,715
嘉義縣	23.45	9.09	2.24	12.11	3,927,254
屏東縣	34.87	14.53	2.28	18.06	17,624,295
臺東縣	20.50	5.64	0.95	13.91	1,575,172
花蓮縣	47.44	39.29	1.24	6.91	13,505,297
澎湖縣	32.00	5.23	1.05	25.73	530,327
基隆市	75.00	44.76	24.29	5.96	6,830,083
新竹市	72.01	23.71	20.50	27.80	9,982,067
嘉義市	37.03	14.94	3.57	18.52	2,248,481
金門縣	49.13	39.85	0.01	9.27	3,502,305
連江縣	62.05	60.53	1.52	0	238,289

備　　註：1.自 103 年起普及率及處理率計算方式係依據污水下水道第五期建設計畫修正以接管戶數乘以各縣市戶量除以各縣市總人口數而得，其計算公式如下：
實際服務人口數÷總人口數=(實際服務戶數×戶量)÷總人口數，
其中全國部分以當期全國戶量計算，縣市部分以該縣市當期戶量計算。

2.各縣市戶量係由內政部統計處網站(http://www.moi.gov.tw/stat/index.aspx)統計資料而得。

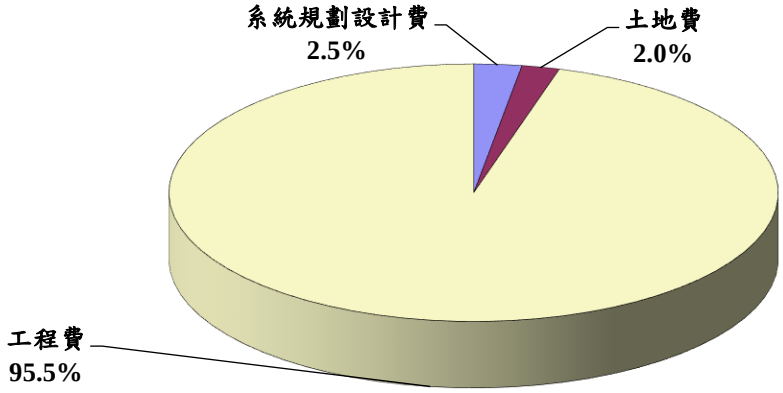
（二）污水下水道建設投入經費

公共污水下水道是都市公共建設，其建設期程長，且需投資龐大經費，展現效益慢，政府平均每年投入之經費超過百億元，而建設經費來源分為政府自辦及民間投資兩部分，政府自辦部分由中央及地方政府編列公務預算辦理。

114 年政府投入污水下水道建設經費共計 177 億 9,129 萬 5 千元，較上年增加 7 億 7,303 萬 7 千元，增幅為 4.54%，其中工程費 169 億 8,556 萬 6 千元(包含廠站工程 56 億 7,382 萬 8 千元及管線工程 113 億 1,173 萬 8 千元)，占 95.47%最多，其次依序為系統規劃設計費 4 億 5,033 萬 1 千元，占 2.53%，土地費 3 億 5,539 萬 8 千元，占 2.0%；就縣市別觀之，以臺南市投入 36 億 5,937 萬 7 千元最高，高雄市投入 21 億 7,004 萬 6 千元次高，桃園市投入 20 億 9,068 萬 5 千元再次之(詳圖 3 及附表 5-4)。

圖3 污水下水道建設投入經費百分比

民國114年



投入經費合計 177 億 9,129 萬 5 千元

（三）污水下水道系統營運管理費用及收入

114 年污水下水道系統營運管理費用計 77 億 5,146 萬 2 千元，較上年增加 32 億 6,591 萬 6 千元，增幅為 72.81%，其中以電費 26 億 6,133 萬 2 千元占 34.33%最多，人事費 18 億 1,306 萬 6 千元占 23.39%次之，污泥清運處置費

13 億 3,612 萬 2 千元占 17.24%再次之(詳表 3、圖 4 及附表 5-3)。

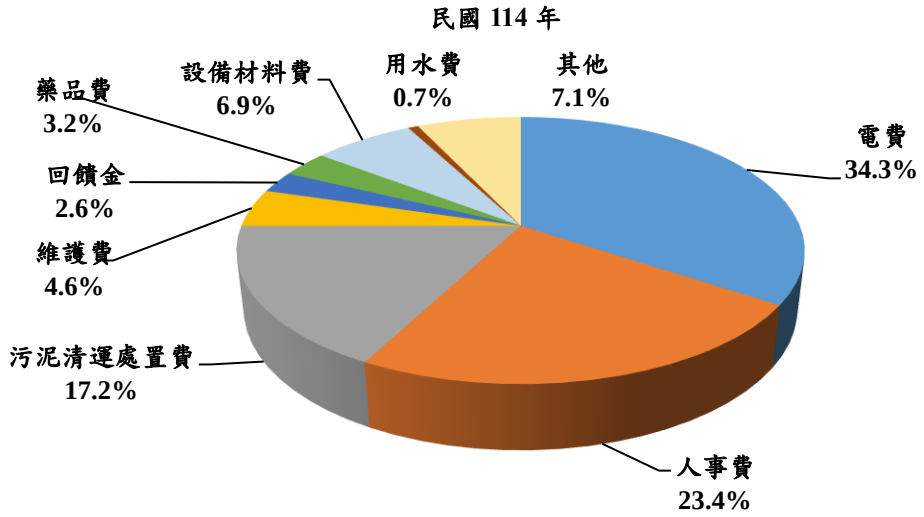
另就使用費收入觀之，目前臺北市、高雄市、新北市、桃園市、南投縣、連江縣及新竹縣全面開徵污水下水道使用費，臺中市、臺南市、宜蘭縣、苗栗縣、嘉義縣、嘉義市、屏東縣、基隆市、新竹市、金門縣、雲林縣、澎湖縣僅針對事業用戶徵收使用費，其餘縣市政府尚未徵收，114 年使用費收入計 36 億 298 萬 8 千元，較上年增加 2.61%。

表 3　污水下水道系統營運管理費用及收入

單位：千元，%

年別	總計	人事費	電費	藥品費	設備材料費	維護費	回饋金	用水費	污泥清運處置費	其他	全年度使用費收入
110 年	3,489,190	800,092	836,773	214,501	103,690	357,369	225,285	20,080	531,114	400,286	1,969,971
111 年	3,783,487	892,685	961,792	217,705	119,480	352,802	238,484	21,646	492,817	486,076	3,175,583
112 年	4,134,697	965,855	1,158,114	213,319	112,765	399,206	236,105	18,826	573,604	456,903	3,346,812
113 年	4,485,546	1,058,593	1,336,155	233,039	180,514	373,772	192,382	17,506	490,513	603,072	3,511,494
114 年	7,751,462	1,813,066	2,661,332	245,637	532,205	358,086	202,719	53,185	1,336,122	549,110	3,602,988
114 年較 113 年增減(%)	42.13	41.61	49.79	5.12	66.08	-4.38	5.1	67.08	63.29	-9.83	2.54

圖 4　污水下水道系統營運管理費用百分比



營運管理費用 77 億 5,146 萬 2 千元

（四）污水下水道計畫管線及設施

就管線長度觀之，114 年底污水下水道管徑 600mm 以上之已建設長度為 138 萬 2,348 公尺，管徑 300-600mm 未滿之已建設長度為 419 萬,41 公尺，管徑 300mm 未滿之已建設長度為 825 萬 5,808 公尺，污水處理設施方面，截至 114 年底污水處理廠已建設完成 123 座，抽水站已建設完成 277 座(詳表 4 及附表 5-5)，較 113 年減少 4 座，原因為連江縣污水處理設施停廠運作共 4 座(北竿鄉橋仔廠原址重建中，南竿鄉夫人廠、北竿鄉后沃廠、東引鄉獅子廠為設備故障)。

表 4　污水下水道計畫已建設之管線長度及設施

年別	管線長度(公尺)			污水處理設施(座)	
	600mm 以上	300-600mm 未滿	300mm 未滿	處理廠	抽水站
110 年底	1,277,408	3,822,757	7,024,197	113	294
111 年底	1,294,574	3,907,179	7,283,343	116	295
112 年底	1,321,497	4,002,343	7,690,817	118	306
113 年底	1,336,310	4,099,395	8,058,875	120	281
114 年底	1,382,348	4,190,041	8,255,808	123	277

Planning construction of sewer system

A. Construction of rainfall drainage system development

By the end of 2025, the planned length of the rainwater drainage project in Taiwan was 6,948 kilometers, of which 5,694 kilometers had been completed. If the implementation rate is calculated with the ratio of actual implemented length occupied in the target length, the implementation rate for the rainwater drainage system construction in Taiwan reached 82.0% in 2025. In which, the highest rate is 97.8% in Taipei city, followed by 96.6% in Kinmen County, 92.9% in New Taipei City, 89.2% in Chiayi City, 87.3% in Penghu County, 87.2% in Keelung City, 85.1% in Taoyuan City, 87.3% in Taichung City, 80.5% in Yunlin County, 78.8% in Tainan City, 78.7% in Kaohsiung City, 73.4% in Hsinchu County, 71.8% in Hsinchu City, 70.5% in Changhua County, 78.6% in Hualien County, 72.0% in Pingtung County and 70.0% in Nantou County. The ratio in all other counties and cities is less than 70%, needed to be improved in construction.

B. Sewage sewer construction

Sewage sewers are sewers for family and industrial sewage. The whole sewage treatment rate includes public sewage sewer available rate, special sewage sewer available rate and the implementation rate of building sewage systems. Sewage sewer construction is regarded as an important index for the urban modernization. In World Competitiveness Yearbook reported by International Institute for Management Development，Lausanne (IMD) public sewage sewer available rate was listed in life quality as one of the evaluation items. The government also treats it as the performance index of sewage sewer construction.

(1) Sewage treatment rate

In recent years, the impact of declining birthrate and other environmental changes factors, which led to an annual decreasing of the average number of persons per household. By the end of 2014, nationwide, the average number of persons per household is only 2.8 persons, according to Interior Ministry data indicates. while "Public sewerage sewer available rate" and "sewage treatment rate" two indicators, formerly calculation of the average number of persons per household was "a household of 4 persons", while still using the "a household of 4 people" to estimate these two indicators have been unrealistic, about the "fifth sewerage sewer construction project (104--109 year)", have been approved by the Executive Yuan, on September 10, 2014, the project amend calculation of two indicators, which are "public sewerage sewer available

rate" and "sewage treatment rate" , originally set up to "households" as the statistical unit modified to "population." That is: (Actual service population) ÷ (Total population) = (Actual service households × The average number of persons per household) ÷ (Total population), the above formula, using current national (the average number of persons per household) ,computing national "public sewerage sewer available rate " and "sewage treatment rate," this two indicators, using current the county (city) (the average number of persons per household) , computing the county (city) "public sewerage sewer available rate " and "sewage treatment rate," this two indicators.

By the end of 2025, the number of sewage treatment households nationwide was 6,962,437, and the sewage treatment rate was 70.82% which decreases 0.16% in comparison with 70.98% in 2024. The unit number of public sewage sewer was 4,215,164 (42.88% available rate) which increases 0.06% in comparison with 42.82% in 2024; 903,353 units (9.19% available rate) of special sewage sewer (in the scale of 100 units / 500 people or more in the communities and industrial districts) which decreases 0.12% in comparison with 9.31% in 2024 and units with the implementation of building sewage systems are 1,843,920 (18.76% implementation rate) which decreases 0.1% in comparison with 18.86% in 2024. In terms of the sewage treatment rate, New Taipei City is the highest (92.54%), followed by Taipei City (89.75%), Hsinchu County (83.9%), Kaohsiung City (77.2%), Keelung City (75.0%), Taoyuan City (73.75%), Taichung City (72.86%), Hsinchu City (72.01%), Tainan City (65.56%), Lienchiang County (62.05%), Yilan County (57.35%) and Miaoli County (53.78%); other counties and cities are not over 50%. The CMY was 1,358,486,994 tons, which increased 1.97% compared with that in 2024. In which, the CMY in New Taipei City (513,379,961 tones) is the highest, followed by Kaohsiung City (310,375,404 tones) and Taipei City (216,641,180 tones).

(2) Expense of sewage sewer construction

The sewage sewer is urban public construction. The construction period is long and the investment is large. Therefore, the government must invest more than 10 billions in it every year. The construction expense comes from the government and the folk. As for the part of the government, the expense will be processed from the public budget planned by central government and local government.

The total expense of sewage sewer construction was 17,791,295,000 dollars in 2025, indicating an increase ratio of 4.54% and budget increment of 773,037,000

dollars over the previous year (2024); the highest expense was 16,985,566,000 dollars (95.47%) of construction expense, followed by 450,331,000 dollars (2.53%) of planning design expense and 355,398,000 dollars (2 %) of land expense. In terms of geological location, the expense of Tainan City 3,659,377,000 dollars, was the highest, and was followed by 2,170,046,000 dollars for Kaohsiung City, and 2,090,685,000 dollars for Taoyuan City.

(3) Sewage sewer system management fee and income

The sewage sewer system management fee in 2025 was 7,751,462,000 dollars which increases 42.81% (3,265,916,000 dollars) in comparison with previous year (2024); the highest expense was 2,661,332,000 dollars (34.33%) of the power rate fee, followed by 1,813,066,000 dollars (23.39%) for Personnel fee, and 1,336,122,000 dollars of Sludge disposal fee (17.24%).

As to the usage fee, Taipei City, Kaohsiung City, New Taipei City, Taoyuan City, Nantou County, Lianjiang County and Hsinchu County charge to the users. Taichung City, Tainan City, Yilan County, Miaoli County, Chiayi County, Chiayi City, Pintung County, Keelung City, Hsinchu City, Kinmen County and Yunlin County, Penghu County only charge usage fees for institutional users. Other counties and cities do not charge for it. The usage fee in 2025 was 3,602,988,000 dollars which increased 2.61% compared with that in 2024.

(4) Sewage sewer pipes and facilities

The constructed length of sewage sewer pipe diameter 600mm or above was 1,382,348 meters till the end of 2025. The constructed length of pipe diameter 300mm–600mm was 4,190,041 meters. The constructed length of sewage sewer pipe diameter below 300mm was 8,255,808 meters. In terms of sewage treatment facilities, the constructed wastewater treatment plants was 123 till the end of 2025. The constructed pumping stations were 277, compared to 2024, there was a decrease of 4 units, The reason is that four sewage treatment facilities in Lianjiang County have been shut down (Qiaozai Factory in Beigan Township is under reconstruction at its original site, while Furen Factory in Nangan Township, Houwo Factory in Beigan Township, and Shizi Factory in Dongyin Township are experiencing equipment failure).