

Construction of water-supply pipes and sewers

A. Construction of rainfall drainage system development

By the end of 2009, 4,402.8 kilometers of the target length of 6,708.8 in the project of rainfall drainage system construction project in the urban development has completed. In which 3,497.9 kilometers in Taiwan, 521.8 kilometers in Taipei city and 383.1 kilometers in Kaohsiung city were completed. If the implementation rate is calculated with the ratio of actual implemented length occupied in the target length, the implementation rate for the rainfall drainage system construction in Taiwan reached 65.6%. In which, the highest rate is 96.8% in Kaohsiung city, followed by 96.6% in Taipei city and 91.2% in Pengfu county. The ratio in all other counties and cities is less than 80%, 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 IMD reported by Lemania College, 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

By the end of 2009, the number of sewage treatment units of the country was 2,812,746 and the sewage treatment rate was 48.67% which increases 5.01% in comparison with 43.66% in 2008. The unit number of public sewage sewer was 1,305,821 (22.59% available rate) which increases 3.09% in comparison with 19.50% in 2008; 800,305 units (13.85% available rate) of special sewage sewer (in the scale of 100 units / 500 people or more in the communities and industrial districts) which increases 0.50% in comparison with 13.35% in 2008; and units with the implementation of building sewage systems are 706,620 (12.23% implementation rate) which increases 1.42% in comparison with 10.81% in 2008. In terms of the sewage treatment rate, Taipei City is the highest (100.0%), followed by Kaohsiung City (86.7%), Taipei County (83.0%), Lienchiang County (74.4%), other counties and cities are not over 60%. As to the usage fee, some counties and cities have not finished the self-governance articles in charges of sewage usage. In considering the low piping coverage of sewage, only Taipei City charges to the

users. Taiyuan County, Taichung County, Keelung City and Kaohsiung City charge to the users in Industry Park, only. Other counties and cities do not charge for it. The usage fee in 2009 was 1,029,919,000 dollars which increases 4.83% compared with that in 2008 and the CMY was 983,610,000 tons, which decreased 12.28% compared with that in 2008. In which, the CMY in Taipei County (293,380,000 tons) is the highest, followed by Kaohsiung City (286,690,000 tons) and Taipei City (280,750,000 tons).

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. In which, Taipei City has the sufficient financial resources. However, other local governments cannot raise the money easily. As a result, the construction expense almost depends on the subsidy from the central government and the construction progress is slow consequently.

The total expense of sewage sewer construction was 16,066,994,000 dollars in 2009, indicating an increase ratio of 8.81% and budget increment of 1,399,000,000 dollars over the previous year (2008); the construction fee was 13,432,914,000 dollars (83.6%), followed by 1,991,251,000 dollars (12.4%) of land fee and 366,486,000 dollars (2.3%) of planning fee. The expense of Taipei City was 2,732,941,000 dollars, 2,277,227,000 dollars for Taipei County, 1,938,701,000 dollars for Hsinchu City. In addition, the expense more than one billion includes 1,331,389,000 dollars for Kaohsiung City, and 1,278,954,000 dollars for Taoyuan County.

3. Sewage sewer system management fee

The sewage sewer system management fee in 2009 was 2,215,996,000 dollars which increases 10.13% (203,904,000 dollars) in comparison with 2,012,092,000 dollars in previous year (2008), composed by 726,366,000 dollars (32.78%) for electricity, followed by 591,218,000 dollars (26.68%) for other items, and 520,301,000 dollars of personnel (23.48%). When compared with that of previous year(2008), the equipment and facilities has the biggest increase ratio of 39.71%, followed by 34.75% of reimbursement fund, and an increase ratio ranging between 12.54% and 16.15% for electricity and maintenance and other miscellaneous items, and the biggest decrease ratio of -17.82 for medicine, followed by only negative -0.48% of personnel.

4.Sewage sewer pipes and facilities

The planned length of sewage sewer pipe diameter 600mm or above was 1,229,244 meters till the end of 2009 and 732,353 meters had been constructed. The planned length of pipe diameter 300mm – 600mm was 3,111,088 meters and 1,639,725 meters had been constructed. The planned length of sewage sewer pipe diameter 300mm or below was 3,900,622 meters and 2,911,428 meters had been constructed. In terms of sewage treatment facilities, the planned wastewater treatment plants was 217 till the end of 2009 and 51 had been constructed. The planned pumping stations were 252 and 133 had been constructed. The planned interceptor station were 115 and 80 stations had been constructed.