# Construction of water-supply pipes and sewers

## A. Construction of rainwater sewer system

The length of rainwater sewer construction in the urban development project by the end of 2007 was 6,849.0 kilometers and 4,246.6 kilometers have been completed; 3,346.8 kilometers in Taiwan Province, 519.8 kilometers in Taipei City and 380.0 kilometers in Kaoshiung City. The implementation rate of rainwater sewer construction is 62.0%; 96.8% in Kaoshiung City, 96.3% in Taipei City. Among Taiwan Provence, implementation rate in Penghu is 91.1%, and the percentage is lower than eighty in the rest of the counties.

## **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 2007, the number of sewage treatment units of the country was 2,268,726, and the sewage treatment rate was 39.5% which increases 4.2% in comparison with 35.3% in 2006. The unit number of public sewage sewer was 1,003,401 (17.5% available rate) which increases 1.9% in comparison with 15.6% in 2006; 721,204 units (12.6% available rate) of special sewage sewer (in the scale of 100 units / 500 people or more in the communities and industrial districts) which increases 0.9% in comparison with 11.7% in 2006; and units with the implementation of building sewage systems are 544,121 (9.5% implementation rate) which increases 1.5% in comparison with 8.0% in 2006. The usage fee in 2007 was 840,899,000 dollars which increases 9.5% compared with that in 2006 and the CMY was 901,460,000 tons, which increased 7.6% compared with that in 2006.

# 2. Expense of sewage sewer construction

The total expense of sewage sewer construction was 15,807,871,000 dollars in

2007 which increases 27.3% in comparison with 12,413,661,000 dollars in 2006; the construction fee was 14,688,368,000 dollars (92.9%), followed by 802,821,000 dollars (5.1%) of land fee and 285,903,000 dollars (1.8%) of planning fee. The expense of Taipei City was 2,795,903,000 dollars, 2,518,689,000 dollars for Taipei County, 1,949,128,000 dollars for Kaoshiung City. In addition, construction fee more than one billion includes 1,397,289,000 dollars for Tainan City, 1,128,463,000 dollars for Taoyuan County, and 1,093,989,000 dollars for Hualien County.

#### 3. Sewage sewer system management fee

The sewage sewer system management fee in 2007 was 1,781,230,000 dollars which increases 12.8% in comparison with 1,578,863,000 dollars in 2006; 556,355,000 dollars (31.2%) for electricity, 453,963,000 dollars (25.5%) for personnel fee and 130,418,000 dollars (7.3%) fir maintenance fee.

#### 4. Sewage sewer pipes and facilities

The planned length of sewage sewer pipe diameter 600mm or above was 1,231,153 meters till the end of 2007 and 602,441 meters had been constructed. The planned length of pipe diameter 300mm – 600mm was 2,707,398 meters and 1,159,960 meters had been constructed. The planned length of sewage sewer pipe diameter 300mm or below was 3,754,040 meters and 2,357,212 meters had been constructed. In terms of sewage treatment facilities, the planned water treatment plants was 195 till the end of 2007 and 42 had been constructed. The planned pumping stations were 216 and 106 had been constructed. The planned interceptor station were 101 and 68 stations had been constructed.