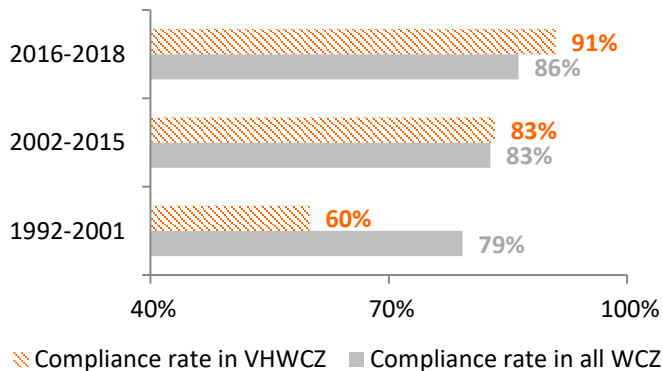




Water quality in Hong Kong

Figure 1 – Compliance rate of statutory water standard in Victoria Harbour and other water control zones*



Note: (*) Meeting four quality targets including dissolved oxygen, inorganic nitrogen, unionized ammonia nitrogen and E. coli bacteria. Statistics are available only on irregular intervals.

Figure 2 – Water quality of rivers, 1987-2017

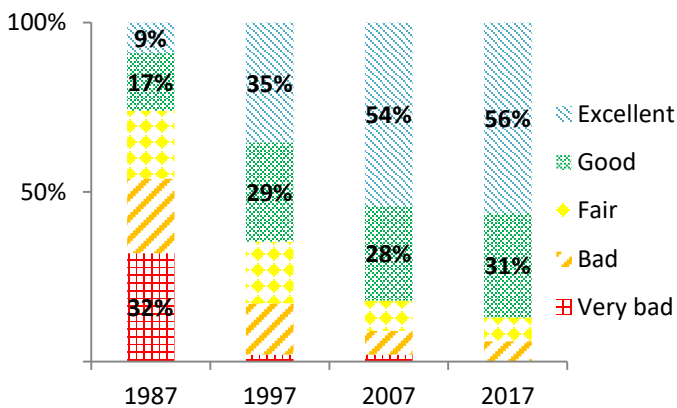
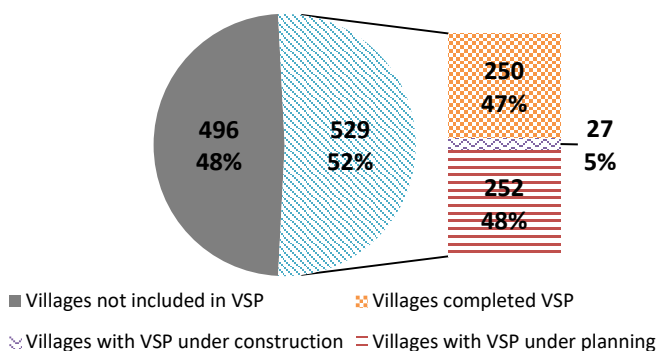


Figure 3 – Progress of village sewerage programmes as in June 2019

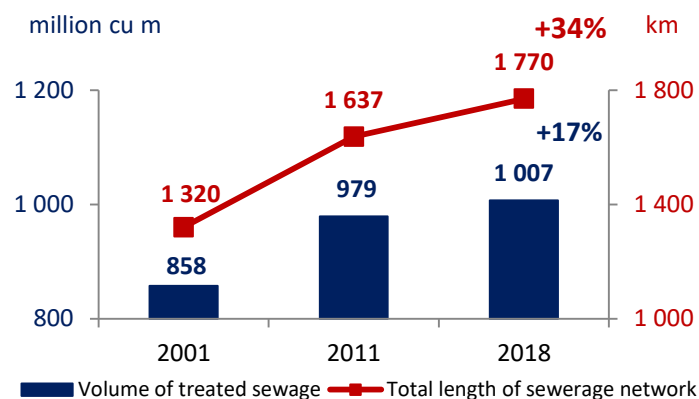


Highlights

- Water pollution used to be a severe environmental problem in Hong Kong before the 1990s, as most of the sewage was directly discharged into the seas or rivers without treatment. Indicative of poor water quality, marine water in the Victoria Harbour Water Control Zone ("VHWCZ") could only comply with 60% of the statutory standard during 1992-2001 (**Figure 1**).
- In 1994, the Government began construction of a huge sewerage infrastructure under the Harbour Area Treatment Scheme ("HATS"), straddling two decades and costing HK\$25.8 billion. Upon commissioning of this project, the compliance rate of water quality in VHWCZ improved steadily to 83% during 2002-2015, and further to 91% during 2016-2018. Reflecting improved water quality, the annual swimming race across the Victoria Harbour has been resumed since 2011, after an interruption of more than three decades in 1979.
- For inland rivers, water quality has likewise improved, especially after the Government stepped up regulation of discharges of livestock wastes into streams and rivers after the late 1980s. In 2017, water quality of 87% of rivers was graded as "Excellent" or "Good", more than tripling the corresponding figure of 26% in 1987 (**Figure 2**).
- For those rivers with poor water quality, most of them are located in Yuen Long and Kam Tin, as some villages and livestock farms are still not connected with sewerage systems. While the Government has been carrying out village sewerage programmes ("VSP") to connect public sewer to village houses since the 1990s, the progress is slow. By June 2019, sewerage works were completed only in 47% of the 529 villages included in VSP, while 5% were under construction (**Figure 3**). For the rest of 48%, sewerage works were still in the drawing board.

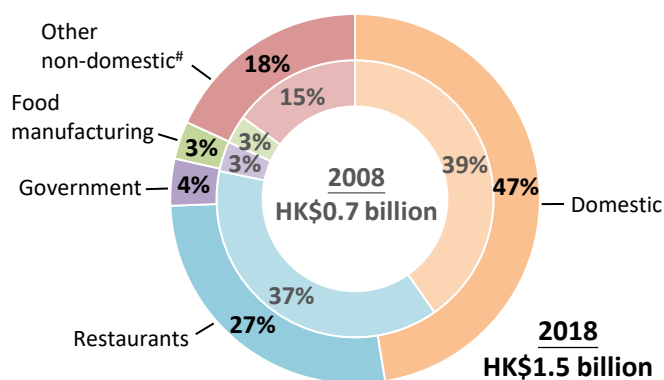
Water quality in Hong Kong (cont'd)

Figure 4 – Annual volume of treated sewage and length of sewerage network, 2001-2018*



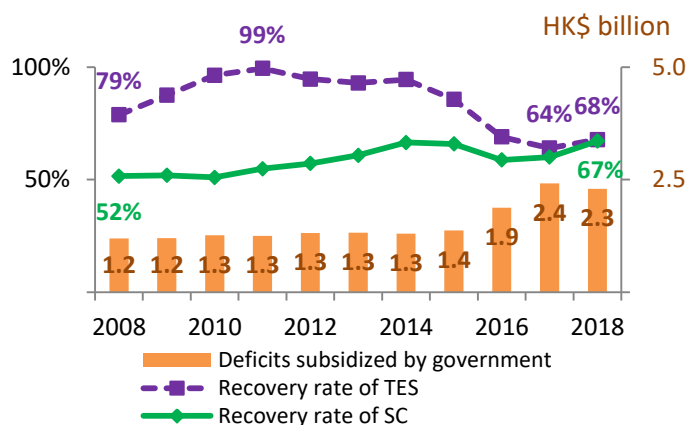
Note: (*) Figures for fiscal years ended 31 March.

Figure 5 – Revenue of SC and TES by type of accounts, 2008 and 2018*



Notes: (*) Figures for fiscal years ended 31 March.
 (#) Included laundries, bleaching and dyeing, etc.

Figure 6 – Deficits and cost recovery rates of sewage services, 2008-2018*



Note: (*) Figures for fiscal years ended 31 March.

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Highlights

- During 2001-2018, the total length of public sewerage network in Hong Kong has expanded by a total of 34% to 1 770 km (**Figure 4**). It now covers 94% of population. Meanwhile, the volume of treated sewage has increased by 17% to 1 007 million cubic meters, along with the concurrent growth of population by 11%.
- In accordance with polluter-pays principle, the government began to impose sewage charge ("SC") on all water users in 1995, supplemented with trade effluent surcharge ("TES") on those business establishments deemed to have more effluent emission. During 2008-2018, total revenue from such charges has more than doubled from HK\$0.7 billion to HK\$1.5 billion (**Figure 5**). Analyzed by users, domestic households were the largest revenue contributor in 2018, with a share of 47%. This was up from 39% a decade ago, along with concurrent hike of the SC rate by a total of 143%. Restaurants were the second largest revenue contributor, though its revenue share dropped from 37% to 27% over the past decade. This was mainly attributable to a downward adjustment in TES rate for restaurants by 19% in 2008, reflecting a lower strength of effluent emitted by the trade.
- Yet the enlarged revenue still cannot meet the full cost of sewage services, and the Government needs to cover the deficit by subsidy. In 2018, the deficit amounted to HK\$2.3 billion, with a cost recovery rate of only 67% for SC and 68% for TES (**Figure 6**). Both figures fell short of the target recovery rates (at 70% and 100% respectively) set by the government. More specifically on recovery rate of TES, it plummeted from a peak of 99% in 2011, partly because of the increasing costs incurred in the "completion and launch of additional sewage treatment facilities" as indicated by the Government.

Data sources: Latest figures from Environmental Protection Department and Drainage Services Department.

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