Development

Research Office
Legislative Council Secretariat

Statistical Highlights

Water consumption and supply

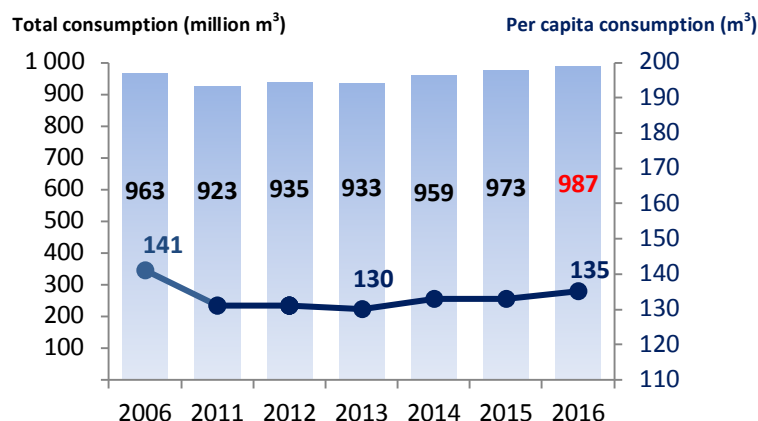### Figure 1 — Fresh water consumption, 2006-2016

Total consumption (million m^3)   Per capita consumption (m^3)

Figure 2 — Fresh water consumption by usage in 2015

- Government 4.4%
- Construction & shipping 2.4%
- Industrial 6.2%
- **Flushing** 7.9%
- **Service trades** 25.0%
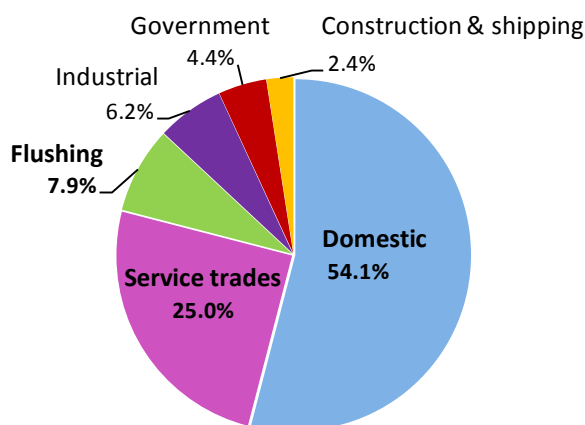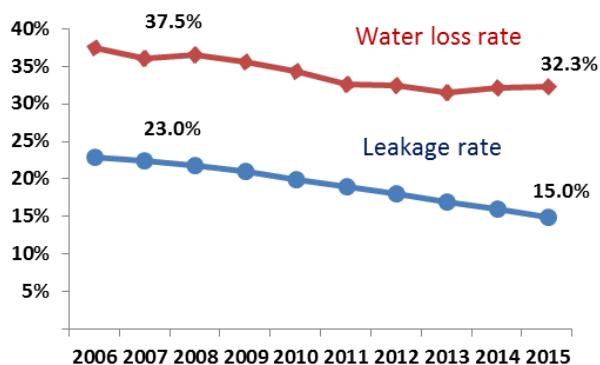- **Domestic** 54.1%

Figure 3 — Water loss and leakage rates*, 2006-2015

Note: (*)   Water loss: unmetered water.
             Leakage: water leaked out from public mains.

Highlights

- Overall consumption of fresh water in Hong Kong had fallen by a total of 4% during 2006-2011, but rebounded by a cumulative 7% in the next five years to 987 million cubic metres ("m^3") in 2016. Despite the "Let's Save 10L Water" Campaign launched by the Water Supplies Department ("WSD") in 2014, each Hong Kong resident on average consumed 135 m^3 of water in 2016, up from 130 m^3 in 2013 (**Figure 1**).

- Analysed by usage, residential users remained the largest consumer of fresh water in 2015, accounting for 54% of the overall metered consumption, followed by the service sector (25%).   Use of fresh water for toilet flushing was the third largest consumption category, with a share of 8% (**Figure 2**).   To reduce the wastage of fresh water for flushing, WSD has been expanding coverage of seawater and reclaimed water supply, from 80% of the population before 2015 to 85% at present, aiming at approximately 90% after 2022.

- Moreover, over 30% of the fresh water went unmetered during 2006-2016 due to reasons like water mains leakages, unauthorized water consumption and inaccurate metering.   To reduce water leakages, WSD had launched the Replacement and Rehabilitation Programme of Water Mains in 2005, resulting in a reduction in the public mains leakage rate from 23% to 15% within a decade (**Figure 3**).
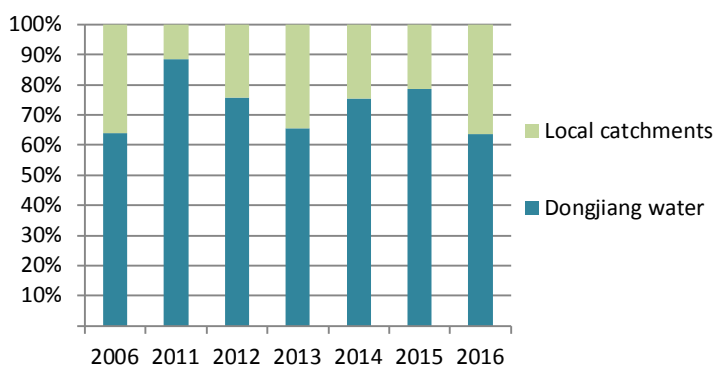
Figure 4 — Sources of fresh water supply, 2006-2016

Legend: Local catchments, Dongjiang water

Figure 5 — Dongjiang water consumption, 2006-2016

million m^3

Values: 2006: 617, 2011: 818, 2012: 709, 2013: 612, 2014: 724, 2015: 766, 2016: 629

Legend: Dongjiang water consumed, Supply ceiling
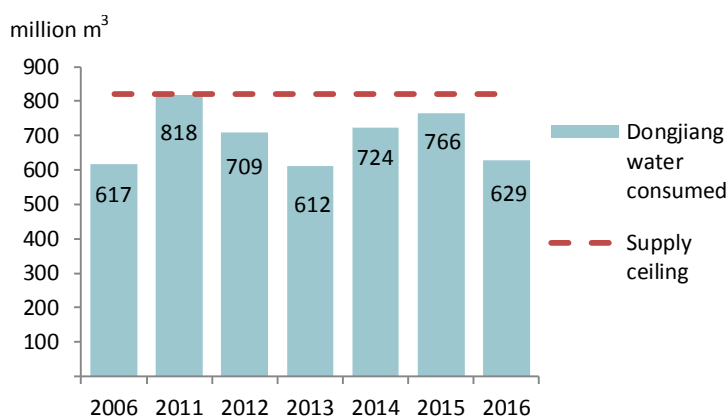
Figure 6 — Estimated sources of fresh water supply in 2020*

Desalination 5%
Local yield 30%
Dongjiang water 65%
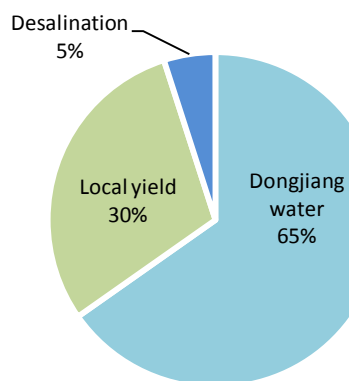
Note: (*) Based on estimates of WSD.

Highlights

- Turning to the supply side, 11%-36% of fresh water was sourced from local catchments in the past decade, while the rest of 64%-89% came from Dongjiang ("DJ") (**Figure 4**).

- Since 2006, Hong Kong has been purchasing DJ water under the "package deal lump sum" arrangement, under which an annual fixed payment is paid to the Guangdong Provincial Government for a reserved supply ceiling of DJ water. Throughout 2006-2016, the annual supply ceiling of DJ water has been set at 820 million m^3. For the past decade as a whole, about 85% of this ceiling was supplied to Hong Kong (**Figure 5**).

- From 2006 to 2017, the unit price of DJ water increased from HK$3.04 to HK$5.83, at an average annual rate of 6.1%. Under the new agreement just announced in November 2017, the unit price will be adjusted upward by 0.3% annually to HK$5.88 in 2020, allowing for changes in operation costs, changes in exchange rate between Renminbi and Hong Kong Dollar and relevant price indices of Guangdong and Hong Kong.

- To diversify water sources in Hong Kong, WSD is building a desalination plant in Tseung Kwan O, with an annual capacity of 49 million m^3 initially upon its completion in 2020. This will be equivalent to about 5% of the annual fresh water consumption in Hong Kong (**Figure 6**).

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