

**CONTROLLING OFFICER'S REPLY**

**DEVB(PL)236**

**(Question Serial No. 3584)**

Head: (82) Buildings Department

Subhead (No. & title): (-) Not Specified

Programme: (1) Buildings and Building Works

Controlling Officer: Director of Buildings (YU Tak-cheung)

Director of Bureau: Secretary for Development

Question:

Regarding the environmental hygiene nuisances caused by water seepage in buildings, would the Department provide the following information:

- (a) since June 2018, the Joint Office has launched the pilot application of technologies such as infrared thermography (IT) and microwave concrete sub-layer moisture content test (MT) to water seepage investigation. Please list the financial provision and staff establishment required since the pilot application, and the financial provision for these technologies and the staff establishment involved for the coming year;
- (b) the number of cases in which sources of water seepage were identified by using IT and MT since the pilot application; and
- (c) the pilot districts in which these technologies including IT and MT have currently been applied, and the timetable for extending their application to more districts.

Asked by: Hon HO Chun-yin, Steven (LegCo internal reference no.: 19)

Reply:

Investigation of reports on water seepage in buildings is carried out by the Joint Office (JO) set up by the Food and Environmental Hygiene Department (FEHD) and the Buildings Department (BD). Generally speaking, JO staff would carry out initial investigation of the source of seepage, including colour water test for drainage pipes. In cases where the source of seepage cannot be identified by the initial investigation, professional investigation will be carried out with the assistance of outsourced consultants.

Since the second half of June 2018, JO has applied new testing technologies such as infrared thermography (IT) and microwave tomography (MT) in professional investigation in three pilot districts (i.e. Central and Western, Kowloon City and Wanchai) where applicable. With the experience gained and data obtained through pilot application of the new testing technologies, JO has since September 2019 extended the new testing technologies to another five districts (i.e. Sham Shui Po, Kwai Tsing, Tuen Mun, Tai Po and the North District). However, in cases whereby these new testing technologies cannot be effectively applied due to, for example, spalling of concrete ceilings at the locations of water seepage and blockage of pipes and other facilities, the outsourced consultants have to continue to employ the conventional tests. JO is refining the technical guidelines and procedures relating to the use of the new testing technologies and is planning to gradually extend such technologies to other districts.

As at 31 December 2019, JO applied IT and MT in the professional investigation of 1 131 cases in eight pilot districts, amongst which 590 cases were concluded and the sources of seepage of 460 cases were successfully identified.

The staff establishment and the expenditure of JO's operation in 2018-19, 2019-20 and the coming year are tabulated below –

<b>BD</b>	<b>2018-19</b>	<b>2019-20</b>	<b>2020-21</b>
Number of professional and technical staff	76	82	82
Staff cost and departmental expenses (\$ million)	42.6	53.7 (estimated)	63.5 (estimated)
Expenditure for engaging outsourced consultants (\$ million)	36.7	26.0 (estimated)	42.5 (estimated)

<b>FEHD</b>	<b>2018-19</b>	<b>2019-20</b>	<b>2020-21</b>
Number of investigation and co-ordinating staff	227	236	241
Staff cost and departmental expenses (\$ million)	109.2	134.8 (estimated)	146.2 (estimated)

Outsourced consultants engaged by JO make use of different methods in investigating sources of water seepage. Taking an ordinary domestic flat with one kitchen and one toilet as an example, the cost for engaging an outsourced consultant to adopt IT and MT in carrying out professional investigation of a water seepage report is estimated to be around \$8,000 under the current contracts. The estimate does not include the overall staffing and operating expenditure of the JO. BD is not able to provide a breakdown of the manpower and expenditure solely for the use of the new testing technologies.