Civil Service Outstanding Service Award Scheme 2019
Civil Engineering and Development Department
Landslide Emergency Services and Slope Maintenance Teams
(5-minute Version)

Screen Content:	Different slopes in Hong Kong and the roads nearby.
Voice Over:	Hong Kong has a land area of about 1,100 km^2. Around 60% of the land area consists of relatively steep natural terrain. During the rainy season, landslides occur frequently, with an average of 300 reported landslides in Hong Kong each year.
Screen Content:	Shots of Civil Engineering and Development Department (CEDD) staff working. CEDD staff inspect the slopes.
Voice Over:	The Geotechnical Engineering Office (GEO) of the Civil Engineering and Development Department (CEDD) has a slope safety management system in place to protect the general public from landslide hazards.
Key-on Caption:	Civil Engineering and Development Department Landslide Emergency Services and Slope Maintenance Teams
Screen Content:	Colleagues on duty at the Emergency Control Centre received calls and assisted other government departments on handling landslide emergencies.
Voice Over:	When the Hong Kong Observatory issues a Landslide Warning or typhoon signal no. 8 or above, the Emergency Control Centre of the Geotechnical Engineering Office will be in operation. Over ten geotechnical engineers and technical officers will be on duty to provide geotechnical advice to government departments on handling landslide emergencies.
Screen Content:	Geotechnical engineers study the information of the landslide and prepare the necessary equipment for site inspection.
Voice Over:	Upon receiving landslide reports, geotechnical engineers will carry out site inspections and give advice to government departments on any necessary mitigation measures and emergency works to restore services and facilities disrupted by landslides.
Screen Content:	Geotechnical engineers carry out on-site inspections.
Name Card:	Ting Sui-man Geotechnical Engineer

	Civil Engineering and Development Department
Ting Sui-man:	Our top priority is to ensure the safety of the general public. If rescue work is required, we will collaborate with the Fire Services Department and provide advice to the Police on the areas to be cordoned off. We will also contact responsible works departments to carry out emergency slope works. It includes promptly covering the slopes with tarpaulin to prevent rainwater infiltration which may cause further landslides.
Voice Over:	When more serious landslides occur, the work of the geotechnical engineers will be even more hectic.
Screen Content:	Shots of the massive landslide that hit a road section of Fan Kam Road in the evening of 29 August 2018, with an inundation of rainwater.
Key-on Caption:	30/8/2018 Fan Kam Road Closure of road due to landslide
Voice Over:	In the evening of 29 August 2018, a massive landslide hit a road section of Fan Kam Road near Ta Shek Wu Tsuen. Both lanes of Fan Kam Road were closed due to inundation of debris and muddy water on the road.
Screen Content:	Geotechnical engineers slowly approaching Ta Shek Wu Tsuen, revisiting the site.
Name Card:	Fung Ka-wing Geotechnical Engineer Civil Engineering and Development Department
Fung Ka-wing:	When I arrived at the site, the landslide debris from the hillside covered the entire road. The debris was up to knee level. I urged the villagers to move out temporarily.
Screen Content:	After the landslide at Fan Kam Road, geotechnical engineer revisits Ta Shek Wu Tsuen to follow-up with the resident on the slope situation.
Name Card:	Angelina Yeung Resident
Angelina Yeung:	I heard a “boom” and all of a sudden the debris rushed to near my house, and a van was bumped in. The Geotechnical Engineering Office used concrete blocks to build a barrier around the slope, covered the slope surface with tarpaulin and shotcrete the landslide scar.

Screen Content:	Shots of the residents and their elderly family member living at Ta Shek Wu Tsuen.
Angelina Yeung:	A lot of elderly people live here. They (CEDD) did a lot of works, some beyond their scope. They have been really helpful. And we are so grateful to them.
Screen Content:	Staff from the Geotechnical Engineering Office and Survey Division operate drones. Colleagues from the Geotechnical Engineering Office and Survey Division use handheld laser scanners to collect data on site.
Voice Over:	The day after the landslide, staff of the Geotechnical Engineering Office and Survey Division visited the site again. They used drones and handheld laser scanners to quickly conduct landslide risk assessment. Detailed geographical data of the nearby natural terrain were collected, providing useful information for the design of emergency works.
Screen Content:	Geotechnical engineers inspect the landslide site, discussing the slope's condition.
Name Card:	Choi Wai-kwok, Michael Geotechnical Engineer Civil Engineering and Development Department
Choi Wai-kwok, Michael:	The data collected on site, i.e. the three-dimensional image, enabled our engineers to carry out landslide hazard study and to assess whether there is any immediate or long term landslide risk. Based on the estimated size and volume of potential further landslides, suitable engineering works would be carried out accordingly, such as the installation of soil nails and flexible barrier to protect Fan Kam Road at slope toe.
Screen Content:	Shots of Fan Kam Road's road sign. Shots of Fan Kam Road's usual road condition.
Voice Over:	Fan Kam Road is the main road connecting Fanling and Kam Tin. The landslide took place just before the school re-opening in September. To restore the road service as quickly as possible and to minimise disruption to the residents, the Geotechnical Engineering Office worked closely with the Highways Department. Immediate action was taken to mobilise the contractors to carry out emergency repair work at the critical location.

Screen Content:	Geotechnical Engineering Office and Highways Department carry out slope emergency repair work and installing soil nails.
Name Card:	Lo Ho-pong Geotechnical Engineer Civil Engineering and Development Department
Lo Ho-pong:	Most of the landslide debris was accumulated at the mid-level of the hillside, posing subsequent landslide danger. The biggest challenge was how to deal with these debris. Our target was to re-open at least one lane of the road to cope with the traffic on the first day of school.
Screen Content:	Shots of Fan Kam Road's road condition after re-opening one lane on 3 September 2018.
Name Card:	3/9/2018 Fan Kam Road Re-opening of one lane after road clearance
Lo Ho-pong:	We discussed with our contractors and engineers on how to optimise the design to ensure that the construction works could be completed by 10 p.m. that night.
Screen Content:	Photos of Stage 1 and Stage 2 emergency works of Fan Kam Road. Photo of Secretary for Development visiting the Emergency Control Centre.
Key-on Caption:	Secretary for Development Visiting Emergency Control Centre
Voice Over:	Immediately after completion of Stage 1 emergency works, Stage 2 works was also successfully completed within the next two weeks. All these emergency works were essential for preventing more severe landslides from happening when Super Typhoon Mangkhut hit Hong Kong.
Screen Content:	The raingauge on the roof of the CEDD building.
Voice Over:	Actually, there are some other works of the Geotechnical Engineering Office that are closely related to the daily life of the general public.
Screen Content:	CEDD staff inspect the raingauges, ensuring that they are operating normally and collecting the data correctly.
Name Card:	Chu Kei-hong, Edward Geotechnical Engineer Civil Engineering and Development Department
Chu Kei-hong,	CEDD operates more than 90 raingauges in Hong Kong. The

Edward:	number of raingauges operated by the Geotechnical Engineering Office accounts for the majority among the government departments. The rainfall data collected by these raingauges enable us to have a clear picture of the rainfall condition of Hong Kong, hence facilitate our joint decision with the Hong Kong Observatory in issuing or cancelling a Landslide Warning.
Screen Content:	Colleagues of CEDD perform different work tasks.
Name Card:	Yeung Fei, Jenny Chief Geotechnical Engineer Civil Engineering and Development Department
Yeung Fei, Jenny:	We are now facing the challenge of extreme rainfall events caused by global warming. We must stay alert, and cannot slack off. We will keep striving our best to serve the public, and to protect their lives and properties from the threats of landslides.
Key-on Caption:	Civil Service Bureau The Government of the Hong Kong Special Administrative Region ©2020