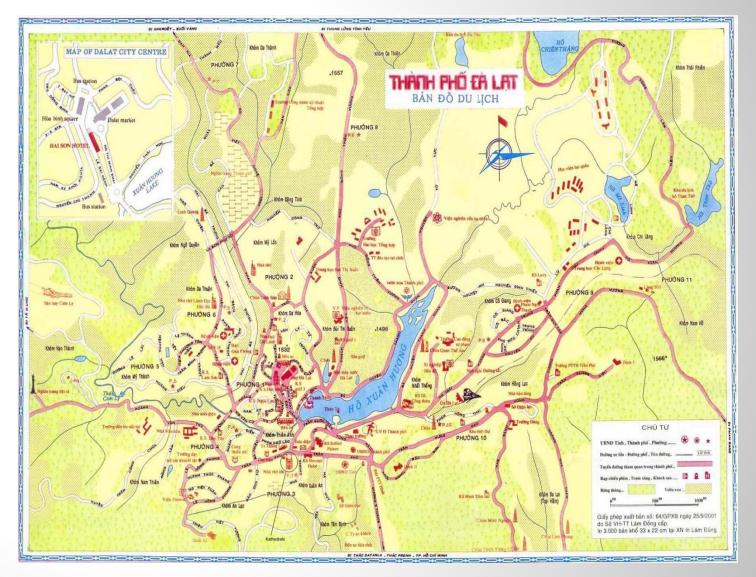
Urban flood and land slides as

climate change impacts in Da Lat City

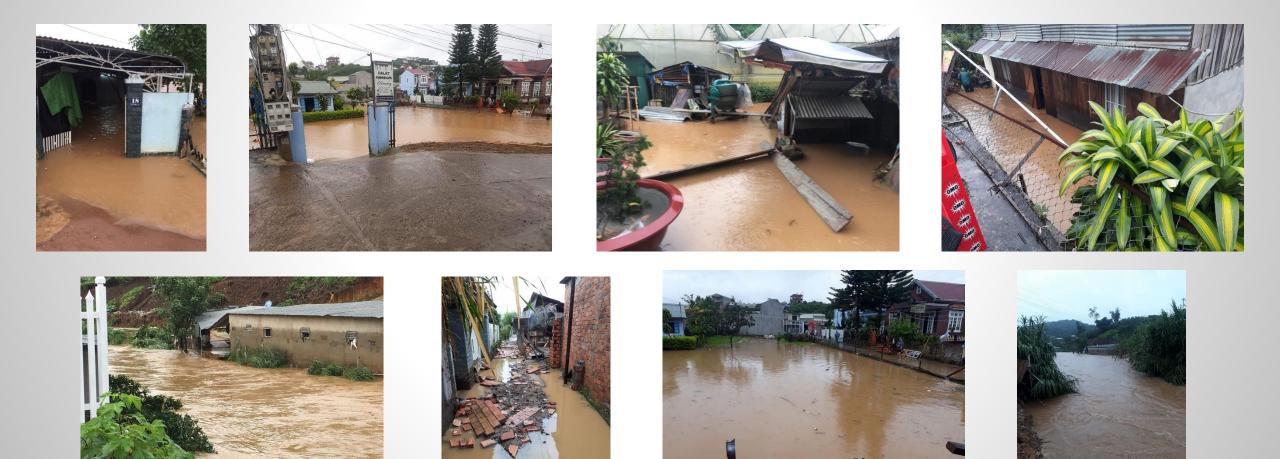




- Da Lat City is the capital of Lam Dong Province, placed in the Lam Vien Plateau at 1500m higher than sea level, with total land size of 393.29 km².
- Da Lat is based on industries of tourism, services and agricultural production. In 2007, tourism and services accounted for 70% of city domestic outputs.
- There is a 6,922 ha of land area for high tech agriculture, 58 % of total productivity (over 12,102 ha) including 10,000 ha of greenhouses (over 50%)



• For 7 – 8 recent years, local floods happened when heavy rains fall



Different floods have softened soils, causing land falls, slides, trees uprooted etc

















Climate change brings heavy, strong rains

Causes???

Sedimentations in city lakes (Chien Thang Lake, Xuan Huong Lake etc) decreases their water storage capacity

Low absorbance of soil

Chaostic development of greenhouses, net houses

Estimated zero coefficient of soil absorbance in these zones



Low absorbance of soil



Rainfall leads to sudden high flow of water



Lower land used for forestry







Flood, land slides

Solutions

Enhanced urban adjustment, strong enforcement of illegal developments, buildings/facilities which break stream boundaries, irrigator canals, drainages etc

- Continuation of restoring, dredging lakes, ponds, streams in the city
- Planning instruments in high tech agriculture, controlling the development of greenhouses, net houses, with ensuring compliance of construction code, buffering zones, density; encouraging city forestry, digging soil for ponds in buffers of greenhouses for natural rainfall absorbance of soil surroundings

THANK YOU VERY MUCH