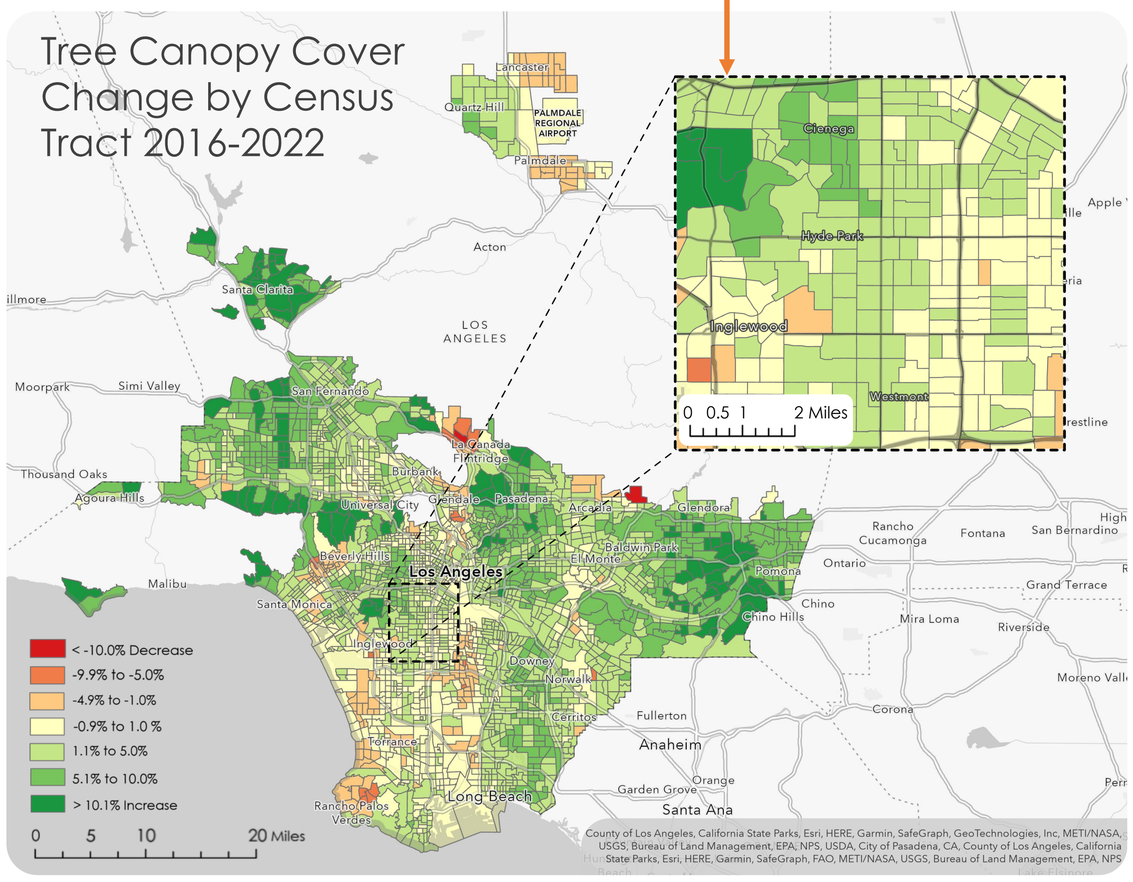
Los Angeles Urban Development

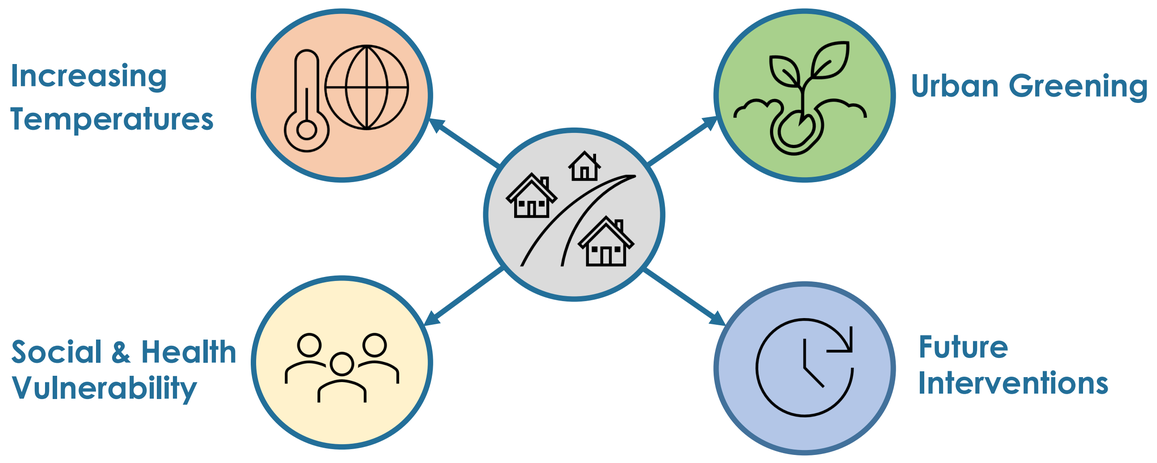
Utilizing NASA Earth Observations to Evaluate the Impact of Tree Coverage on Urban Heat Mitigation

In recent decades, Los Angeles, California has experienced an increase in summer temperatures that has intensified the urban heat island effect. The expansion of developed areas has contributed significantly to this phenomenon by trapping and reradiating heat, posing dangerous health risks to residents. To mitigate this problem, organizations including City Plants and the L.A.'s Office of City Forest Management have implemented initiatives to promote urban greening and tree planting, which help cool down vulnerable communities. In collaboration with these partners, NASA DEVELOP has undertaken a study to investigate the role of trees in urban environments and their effectiveness in reducing local urban heat islands.

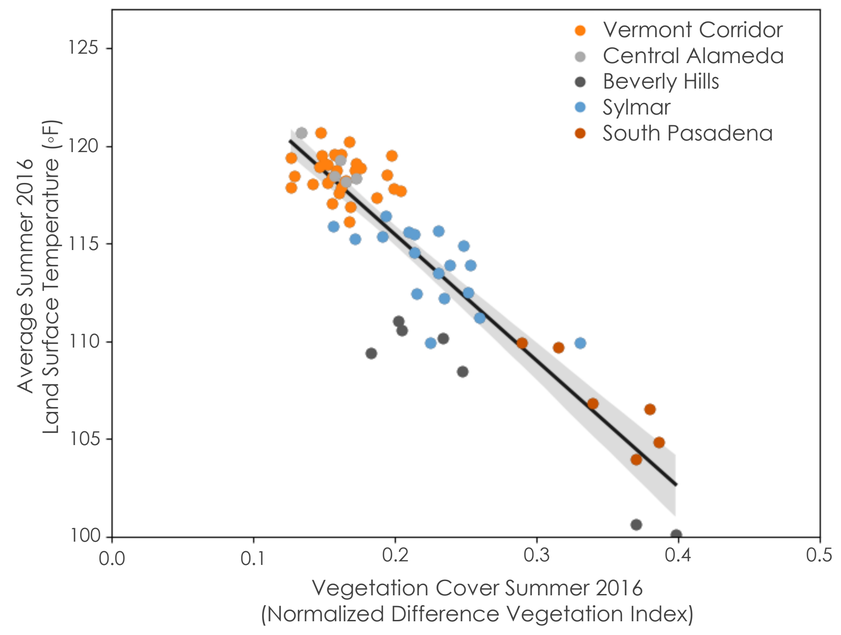
The Vermont Corridor Project planted over **600 trees** along Vermont Ave and increased tree canopy cover by up to **5%** in the community

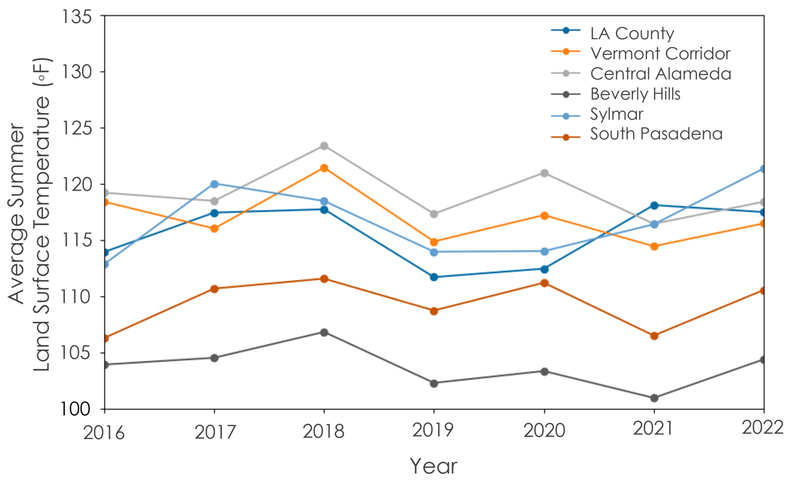


COMMUNITY CONCERNS



The study of five distinct regions in L.A. indicates a strong correlation between temperature and the presence of vegetation cover





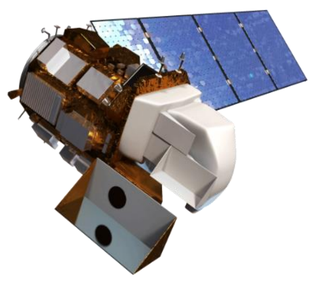
Greener areas (such as South Pasadena and Beverly Hills) show consistently cooler summer temperatures

Looking Ahead

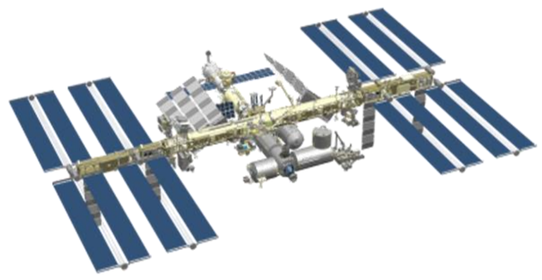
- Explore the impacts of additional tree planting programs in Los Angeles, as well as extending these efforts to other cities worldwide
- Investigate additional benefits that tree planting programs provide to communities beyond heat mitigation

L.A.'s Green New Deal includes planting **90,000 trees** by **2028** in low-income areas with the least shade

NASA Earth Observations



Landsat 8 (OLI & TIRS)



ISS (ECOSTRESS)

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25TH DEVELOP ANNIVERSARY

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Project Partners

City Plants

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