

# Increasing the Wholeness and Decreasing the Emptiness of “Life” in the City: The Importance of Urban Plants and Parks

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## **ANTHROPOCENE**

We are in a new geological epoch in which humans have a decisive influence on the state, dynamics and future of the Earth




# Century of the City

Hong Kong


Seto et al 2010 Ann Rev Enviro





**Century of the City**  
As of 2008 more humans lived in urban  
areas than rural/natural areas

Yesterday, Kyoto, Japan

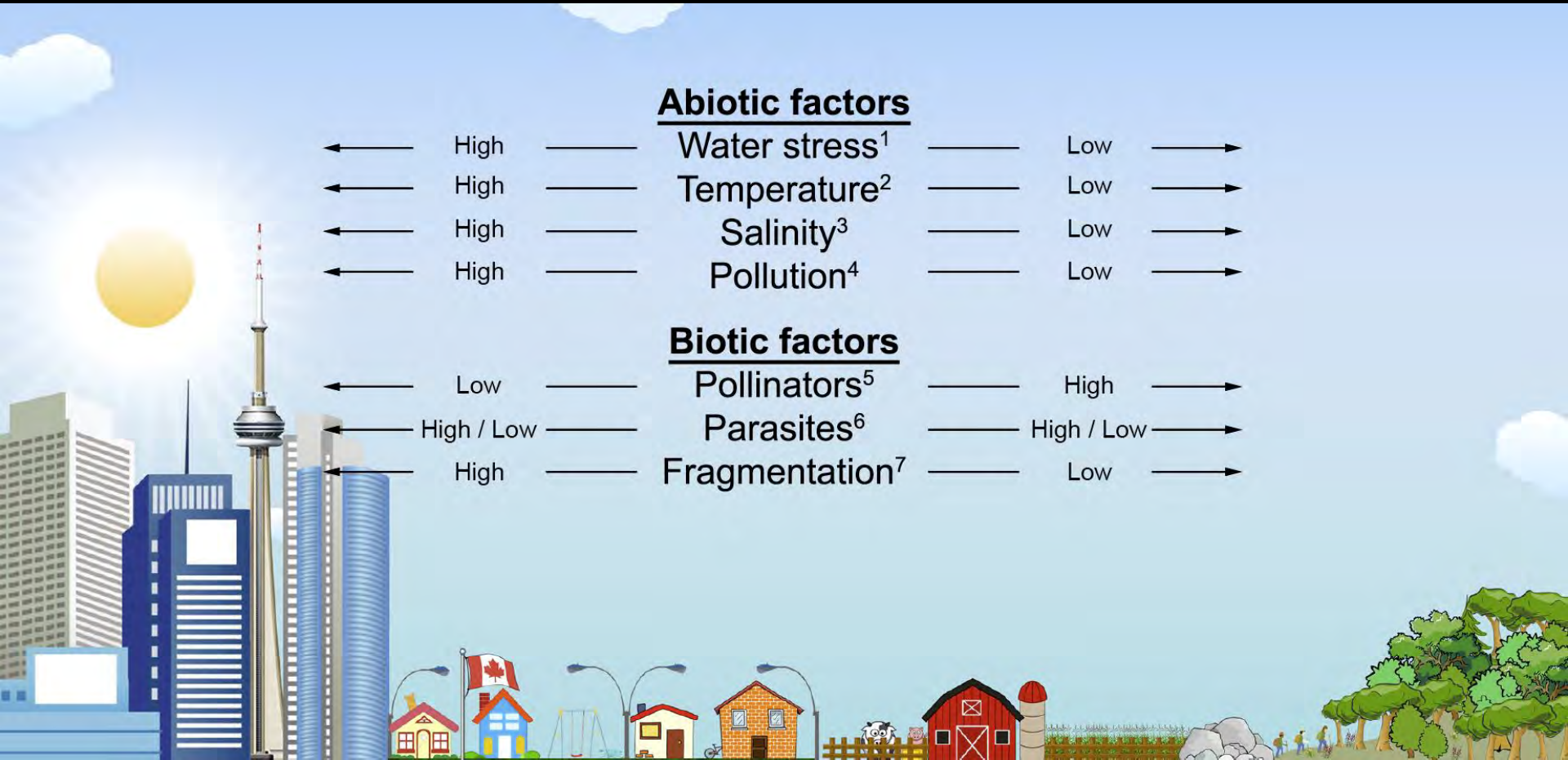
A satellite image of Earth at night, showing the continents of North America, Europe, and Africa. The landmasses are covered with a dense network of yellow and white lights, representing urban areas and city populations. The oceans are dark blue. A semi-transparent light blue rounded rectangle is overlaid on the center of the image, containing text.

Urban areas cover 1-3% of the Earth's  
land surface ... and the number  
continues to rise





# The Urbanization Syndrome







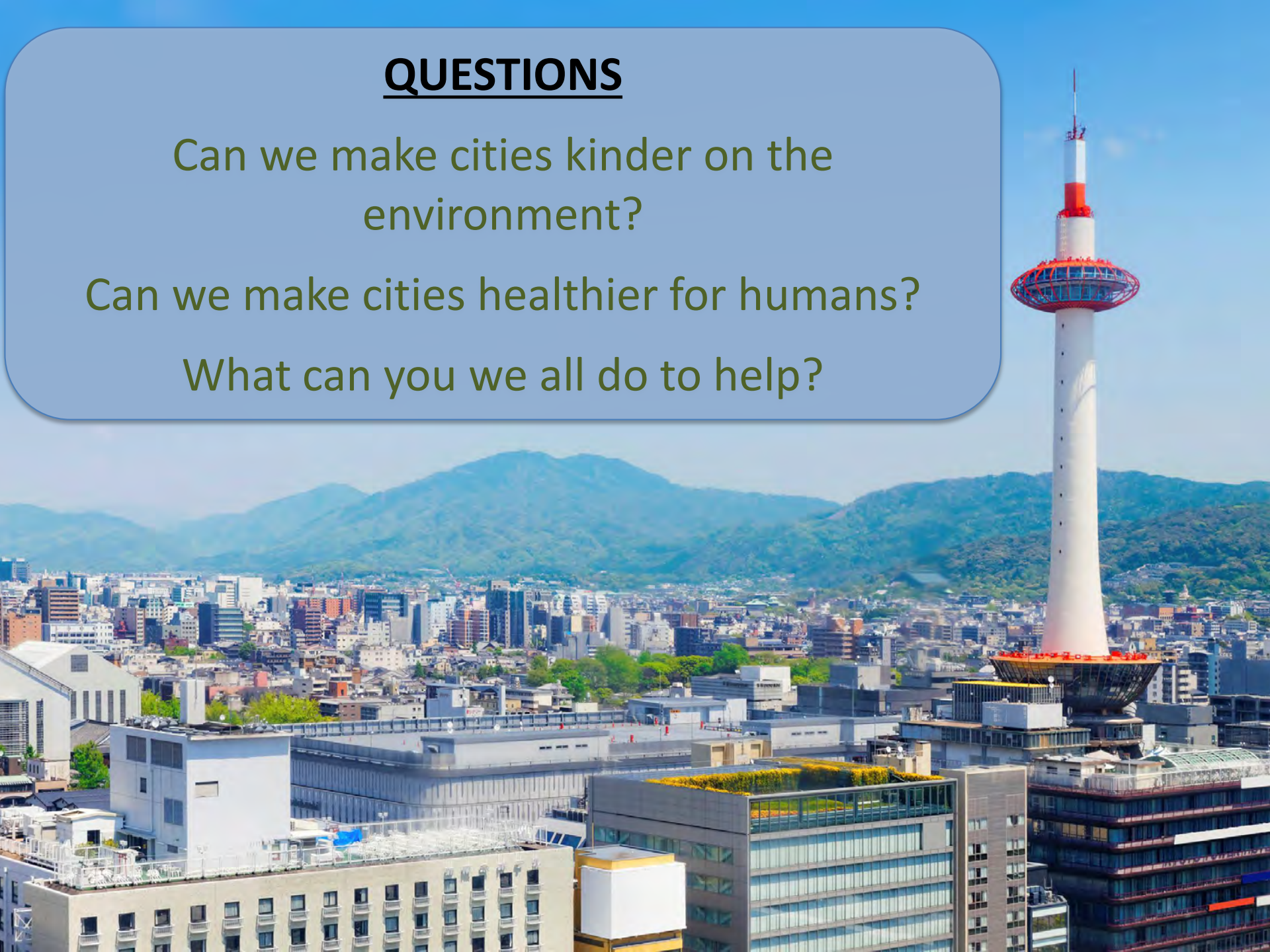


# QUESTIONS

Can we make cities kinder on the environment?

Can we make cities healthier for humans?

What can you we all do to help?



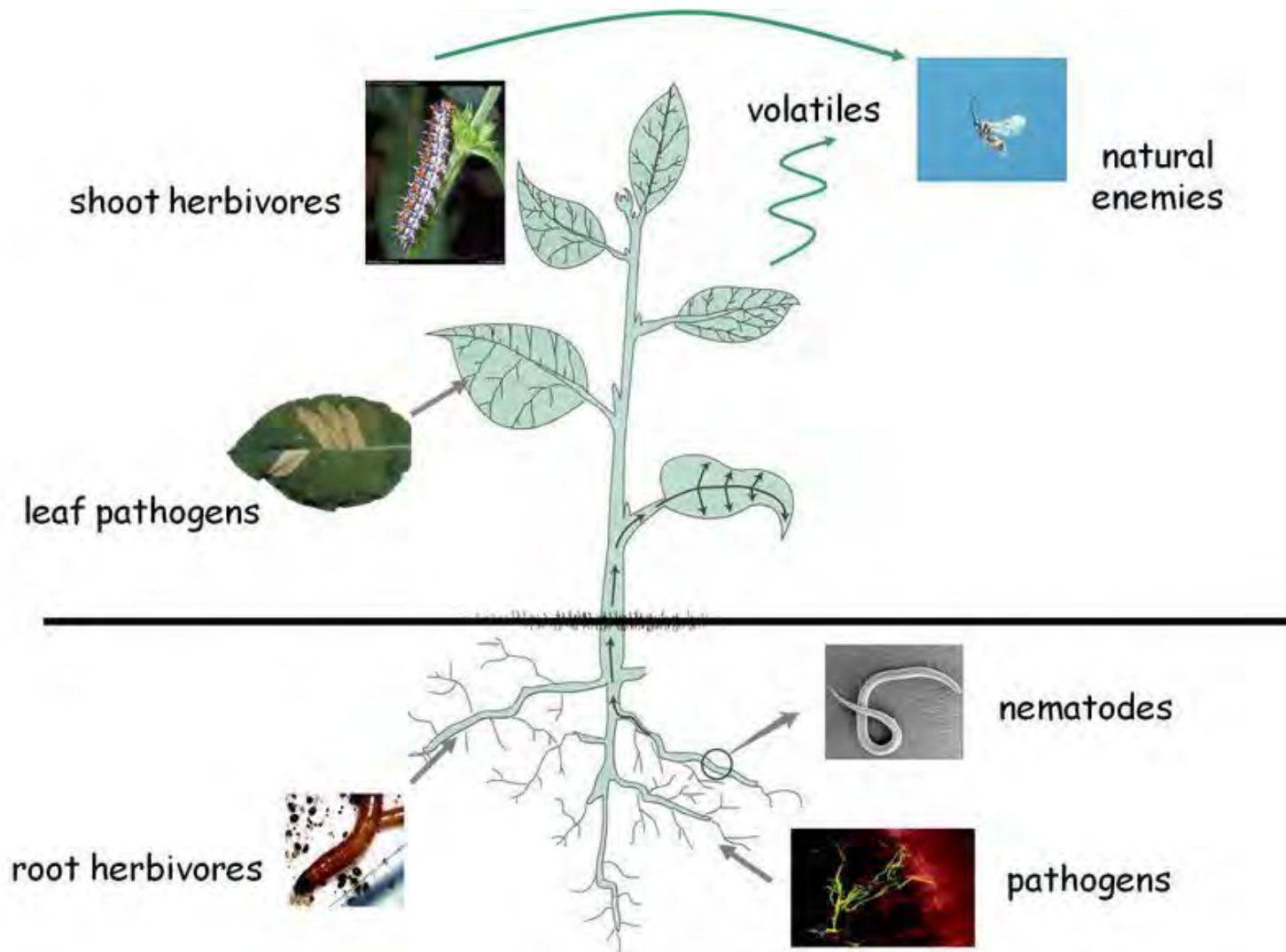


# Importance of Plants and Parks in Urban Environments

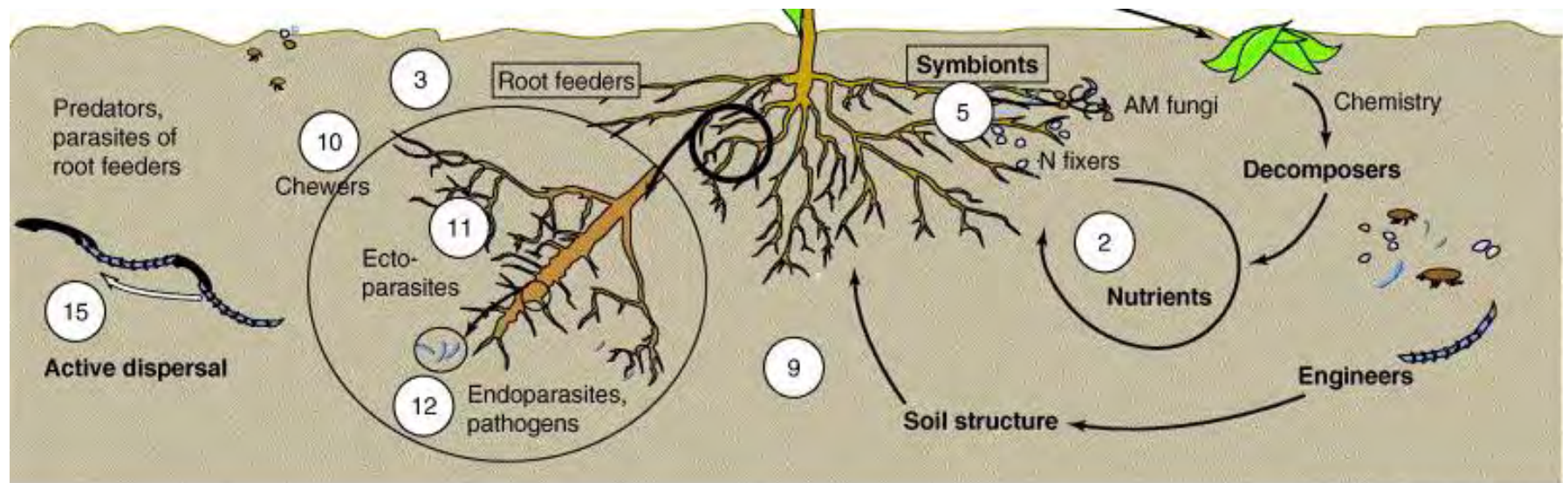
- Ecosystem function
- Pollution reduction



# Plants Are the Basal Resource for ALL Foodwebs







TRENDS in Ecology & Evolution

- Turning over Carbon, Nitrogen, Phosphorous and Potassium, making them available to other organisms





# Plants Feed Pollinators





# Benefits of Native Plant Diversity: Greater Ecosystem Stability and Resilience





# Importance of Plants and Parks in Urban Environments

- Ecosystem function
- Pollution reduction



# Plants Improve Air Quality in 5 Ways

- Release O<sub>2</sub>
- Absorb pollutants
- Intercept particulate matter
- Reduce energy consumption
- Transpire water and give shade -> reduced air temperature



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Takaragaike Park

Botanic Gardens

Tadasu no Mori

Tenman-Gū Shrine

Hirano Shrine

Imperial Palace

Kyoto University

Kurodanicho

Narabigaoka

Nijō Castle

Kamo River

Katsura River



# More Greenspace =

- Reduced sedentary behaviour
- Increased physical activity
- Increased mental health
- Reduced aggression
- Improve memory and attention
- Reduced blood pressure and stress
- Decreased disease diagnosis
- Improved recovery from surgery
- Reduced mortality

**YES YOU LIVE LONGER IF YOU ARE CLOSER TO  
GREEN SPACE**



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# Preservation and Restoration of Urban Green Space

1. More accessible green space
2. Connected green space
3. Replenish native diversity
4. Engaged public and politicians
5. Money!

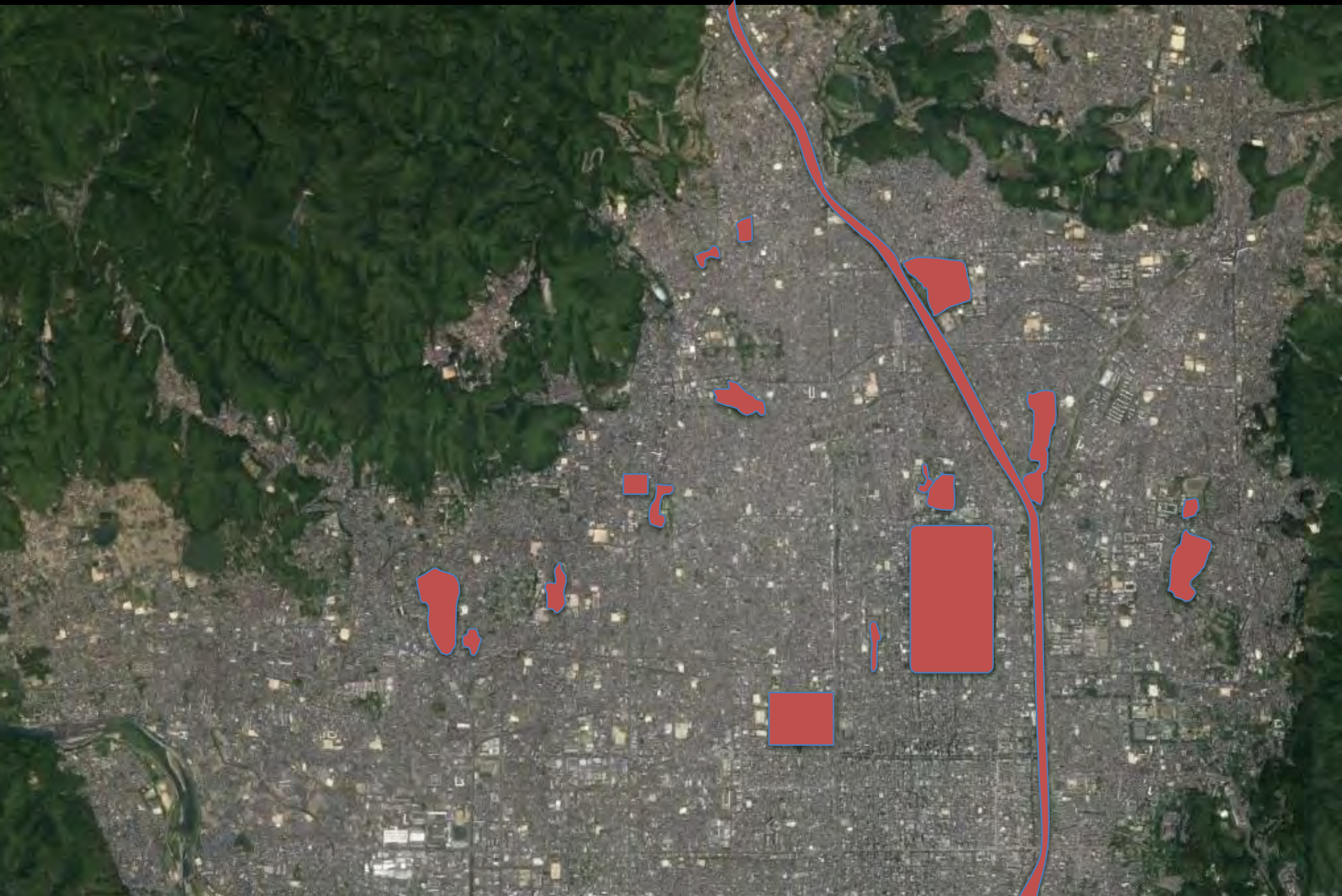


# 1. More accessible green space





## 2. Connect our green space





# Preservation and Restoration of Urban Green Space


1. More accessible green space
2. Connected green space
- 3. Replenish native diversity**
4. Engaged public and politicians
5. Money!



# 3. Replenish native species diversity



**Credit Valley Conservation Authority –  
Habitat Restoration**

 Mississauga, ON



**The Riverwood Conservancy - Native Plant Propagation**



# Preservation and Restoration of Urban Green Space

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*It starts with you...*

*Get involved!*

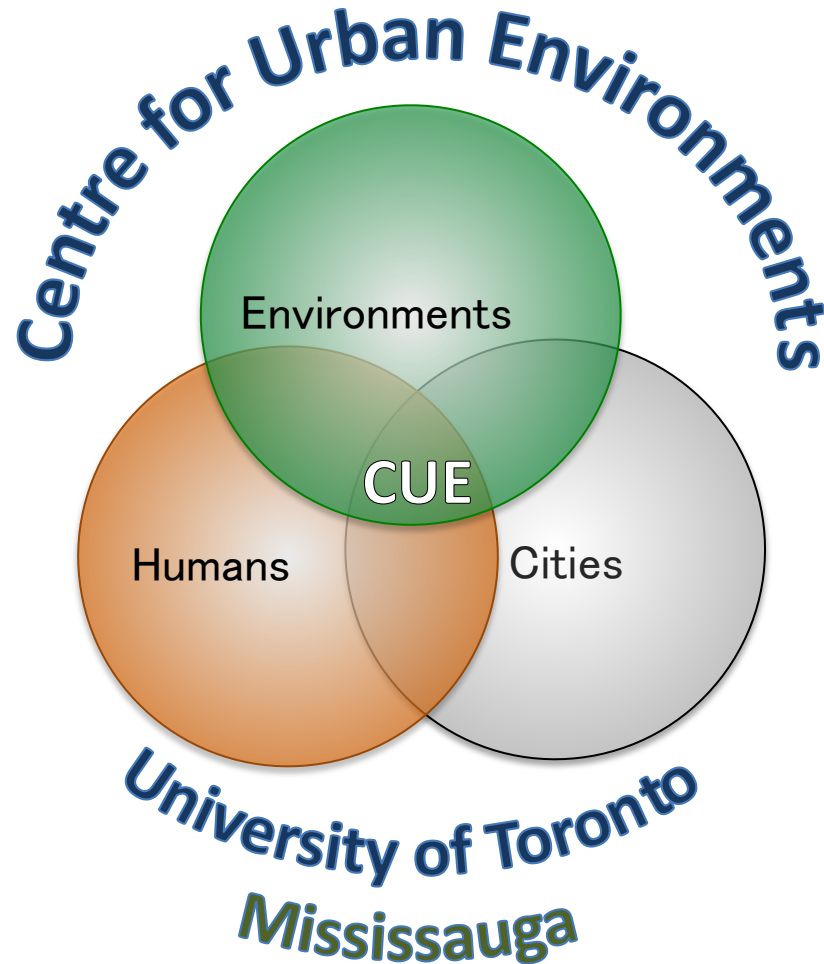
*Take action!*



# Preservation and Restoration of Urban Green Space

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5. **Money!**





January 1, 2018

*Provide local and global leadership in interdisciplinary research,  
education and outreach on urban environmental issues*





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288,394  
trees  
planted

Help the City of Mississauga  
plant one million trees by 2032



Count my Trees



Event Listings



Top 5 Planters

onemilliontreesmississauga

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helpusplanttrees

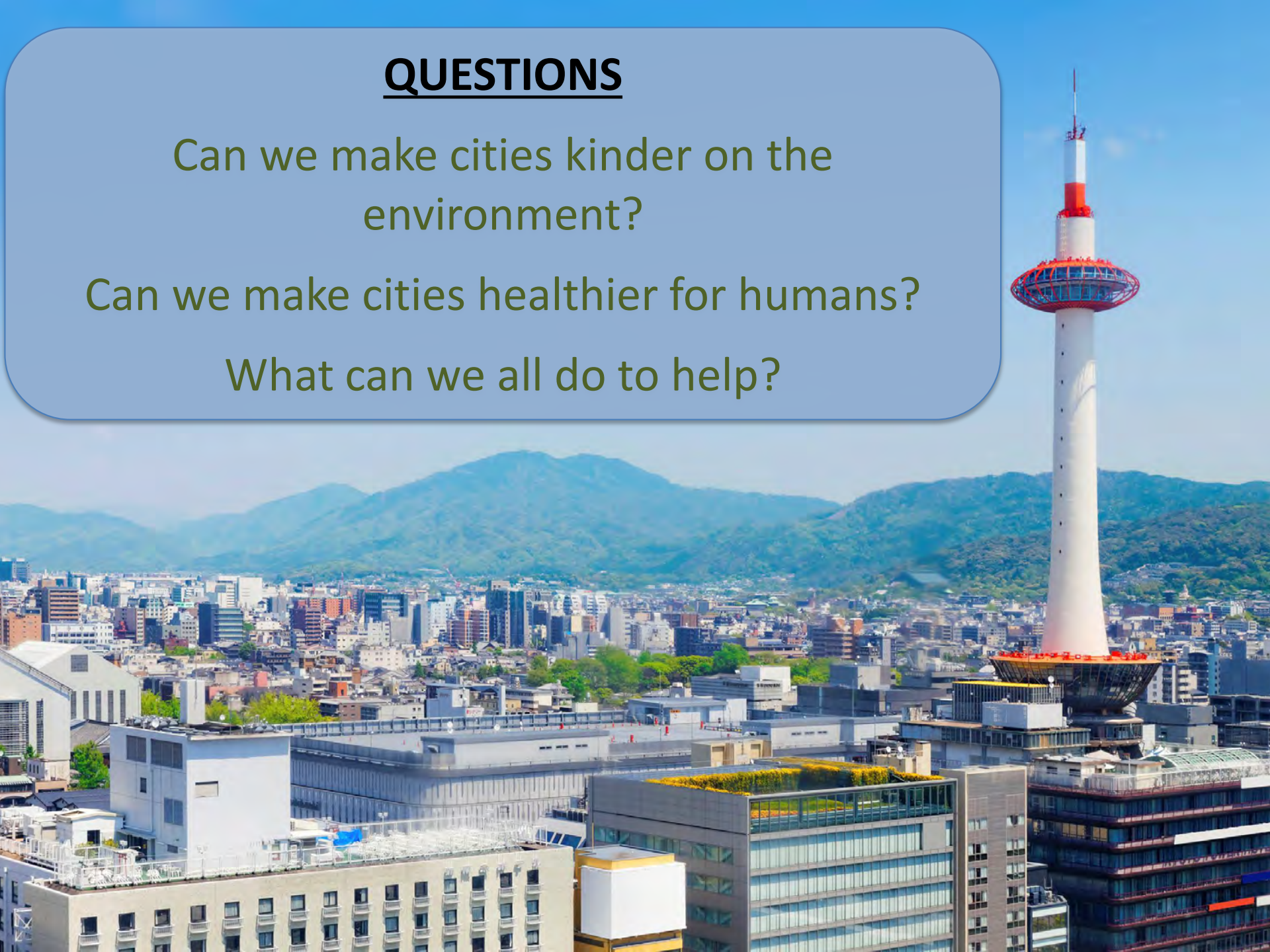


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A photograph of the Chicago skyline, featuring numerous skyscrapers and the prominent Willis Tower. In the foreground, a dense layer of green trees and foliage covers a hillside, creating a contrast between the urban environment and nature.

# If we follow these steps to preservation and conservation of green spaces...

- **We will make cities kinder on the environment**
  - **We will make cities healthier for us**
  - **We can all make a difference**





Thank you