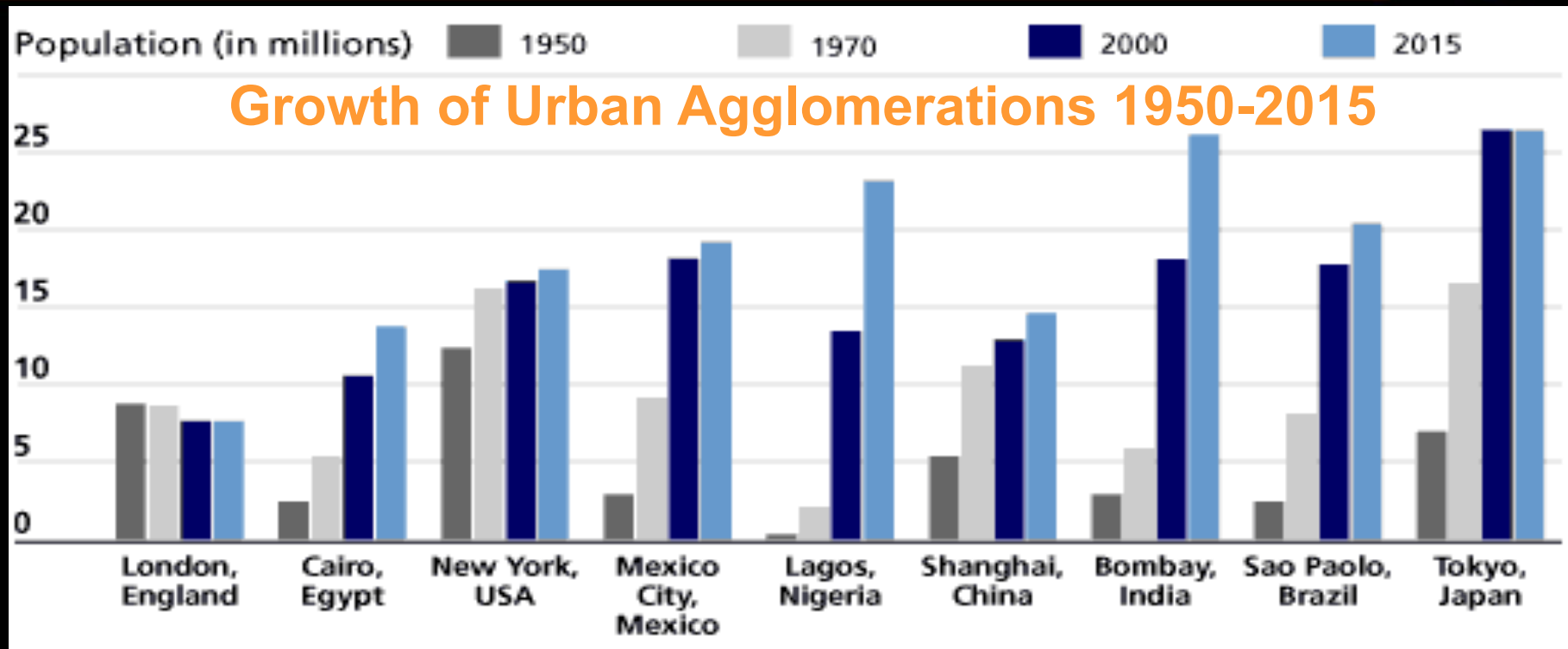


Sprawl and the Environment

World Population Growth 1750-2150



- About 3 billion people, or 50 per cent of the global population, already live in urban areas; over the next 25 years, more than 2 billion people are predicted to be added

Source: UN- HABITAT Report 2005; United Nations, World Urbanization Prospects, The 1999 Revision

URBAN FACTS



- Roughly 3% of the earth's land surface is occupied by urban areas, with the highest concentrations occurring along the coasts and waterways
- Of the 10 world's most populous urban agglomerations, 6 are in Asia; global population is around 6.4 billion and growing at 70 million/year, mostly in low income countries
- In 2000, about 47 % of the world's population lived in urban areas
- By 2030, 60 % of the world population is expected to be urban
- In Mexico City, for every increase in ozone of 10 parts per billion, a 0.6% increase of acute mortality and 1% increase in premature mortality can occur
- In Santiago, 4 000 people die prematurely every year from causes related to air pollution

Sources: UNEP, WRI, Population Reference Bureau, 2006; UN/ESA, 2005



Urban sprawl and its impact on Banjul Gambia

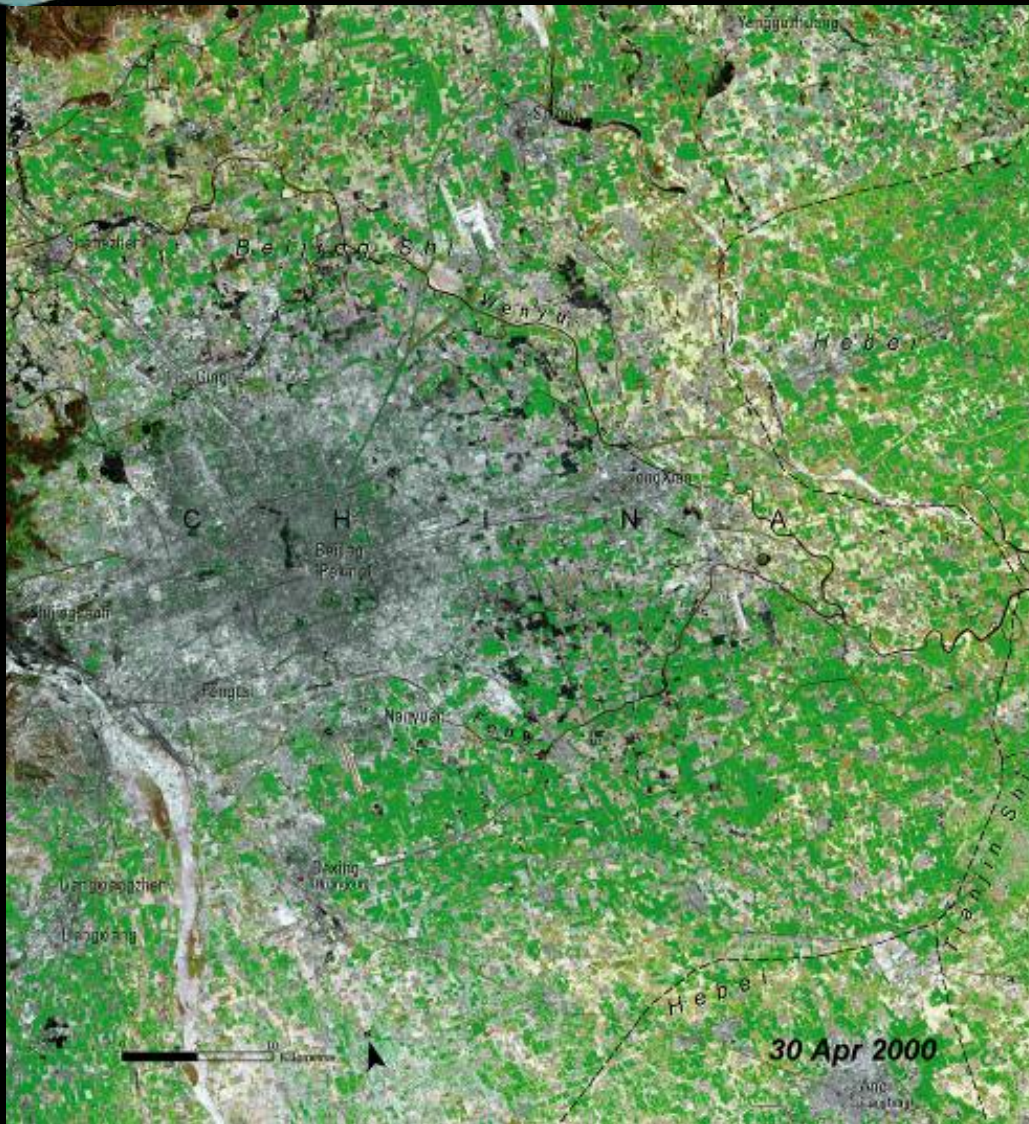


- 1973: Urban growth and expansion of cropland has led to decline in woodland

- 1999: The Abuko Nature Reserve is an isolated patch of green in the 1999 image



Explosive growth in Beijing China

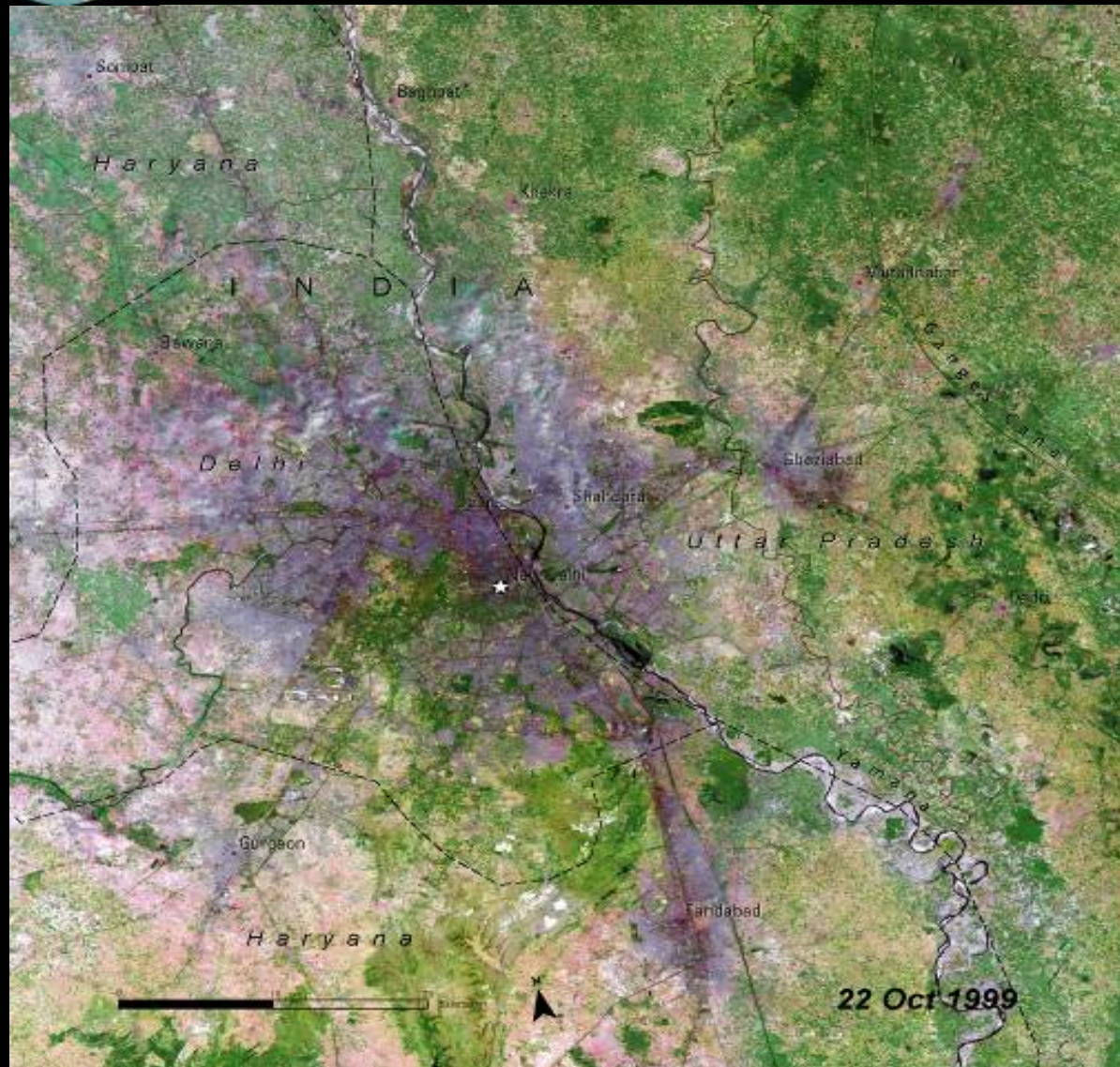


Beijing, the capital city of China, has experienced explosive growth since economic reforms in 1979

- 1978: Beijing in 1978
- 2000: Extent of urban expansion is clearly visible



Growing Delhi and its suburbs India



1977-1999: The population of Delhi was at 4.4 million in 1975 and grew to 12.4 million in 2000





Phenomenal growth in Dhaka Bangladesh



1977-2000: the capital
of Bangladesh has
grown from a city of 2.5
million more than 10
million



Rapid urban growth in Karachi Pakistan



- 1975: Karachi before the urban sprawl

- 2001: Note the change in aerial extent





Sydney – the country's largest city Australia



1975-2002: Over the last several decades, Sydney has been expanding westward toward the Blue Mountains



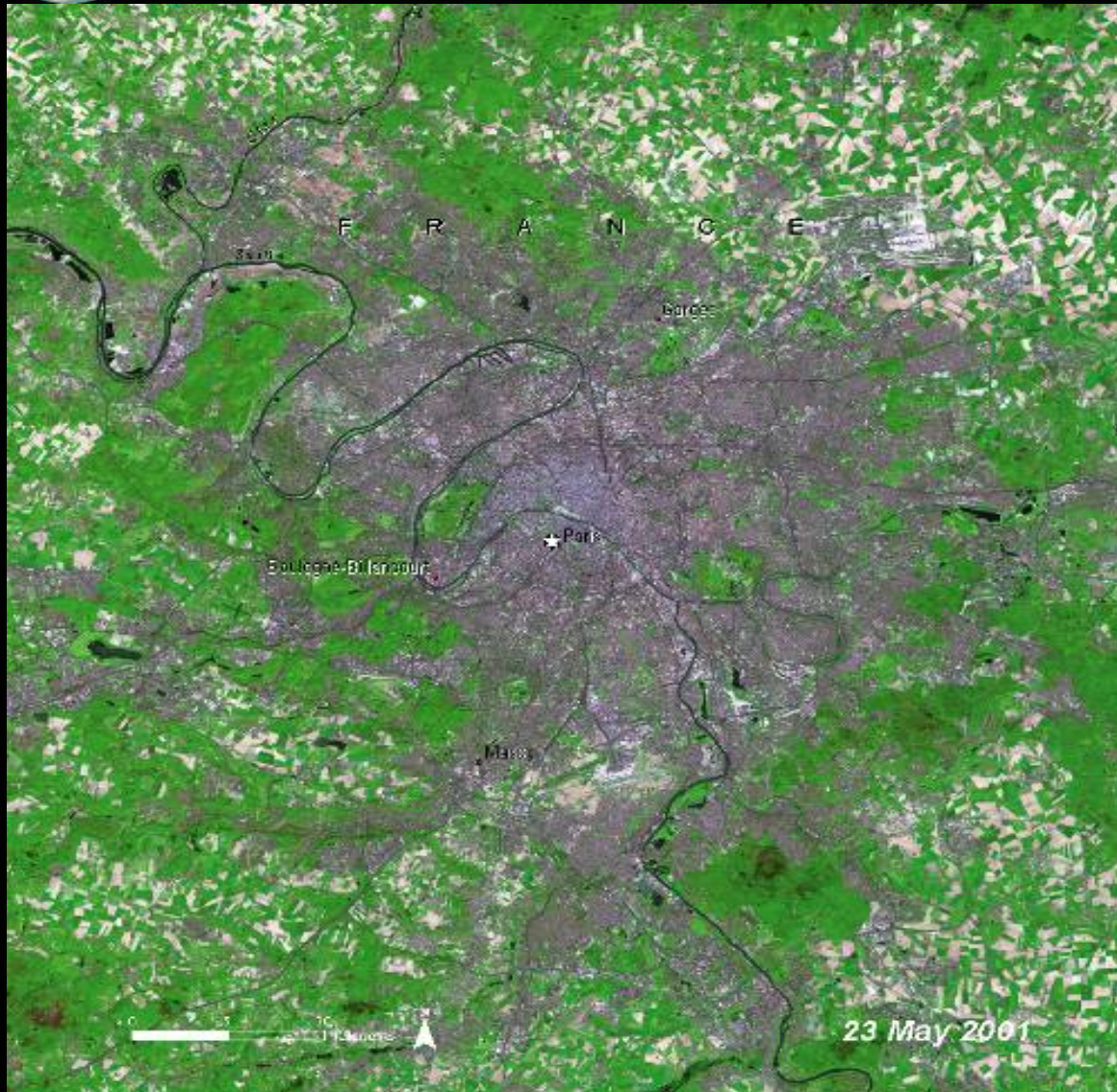
Growing London city United Kingdom



- Over 7 million residents
- Population projected to approach 8 million by 2021



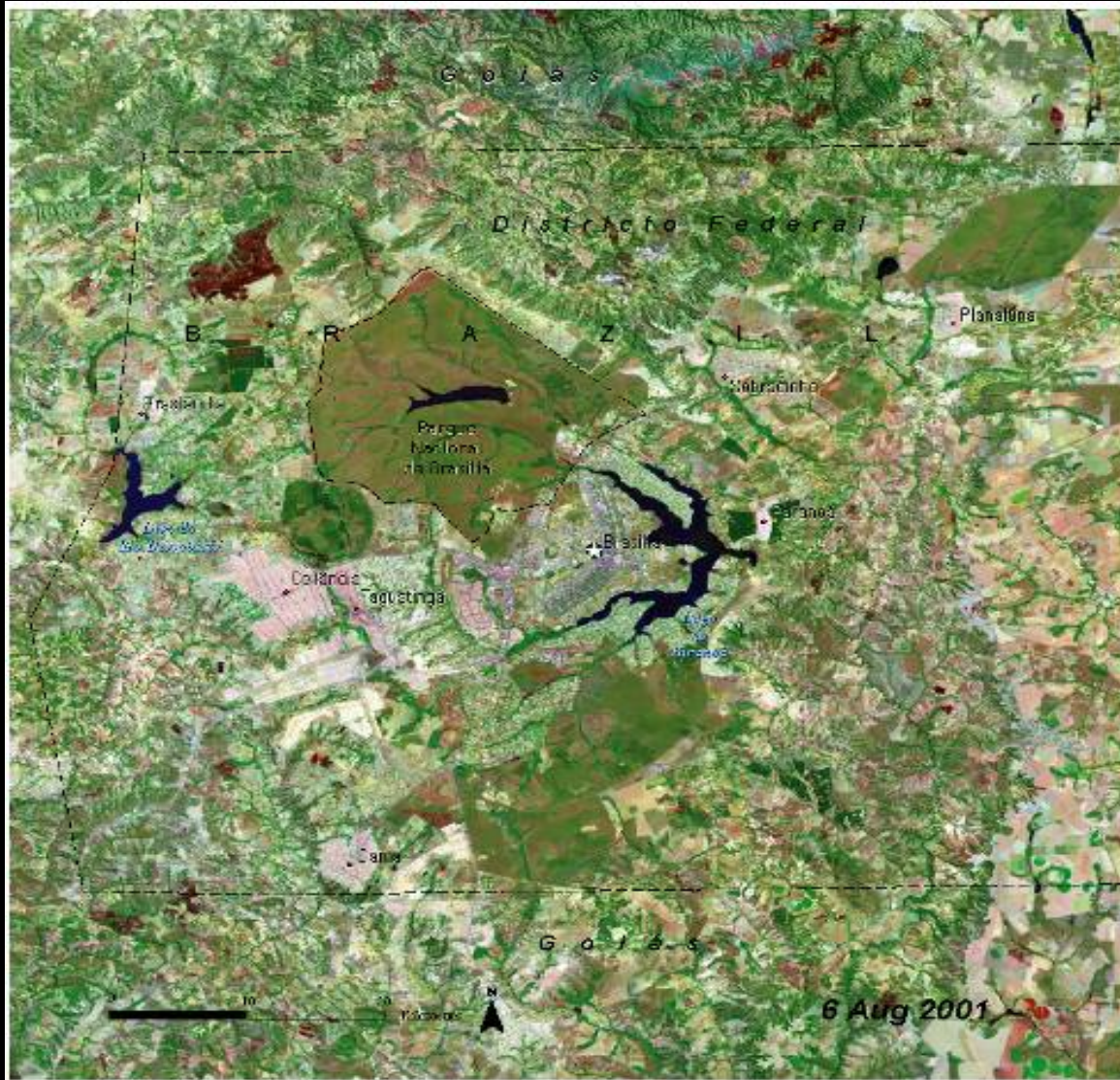
Seine River dissecting Paris France



1976-2001: Images
show expansion of
city into the
surrounding rural
areas



Unplanned urban developments in Brasilia Brazil



- 1973-2001:
Unplanned urban
development
resulted in a
collection of urban
“satellites” around
the city



Fastest growing megalopolis in the world - Mexico City, Mexico



- 1973 -Urban growth is concentrated in the center of the city
- 2000 -Now expands dramatically into surrounding rural areas



Growth
of a
mega city



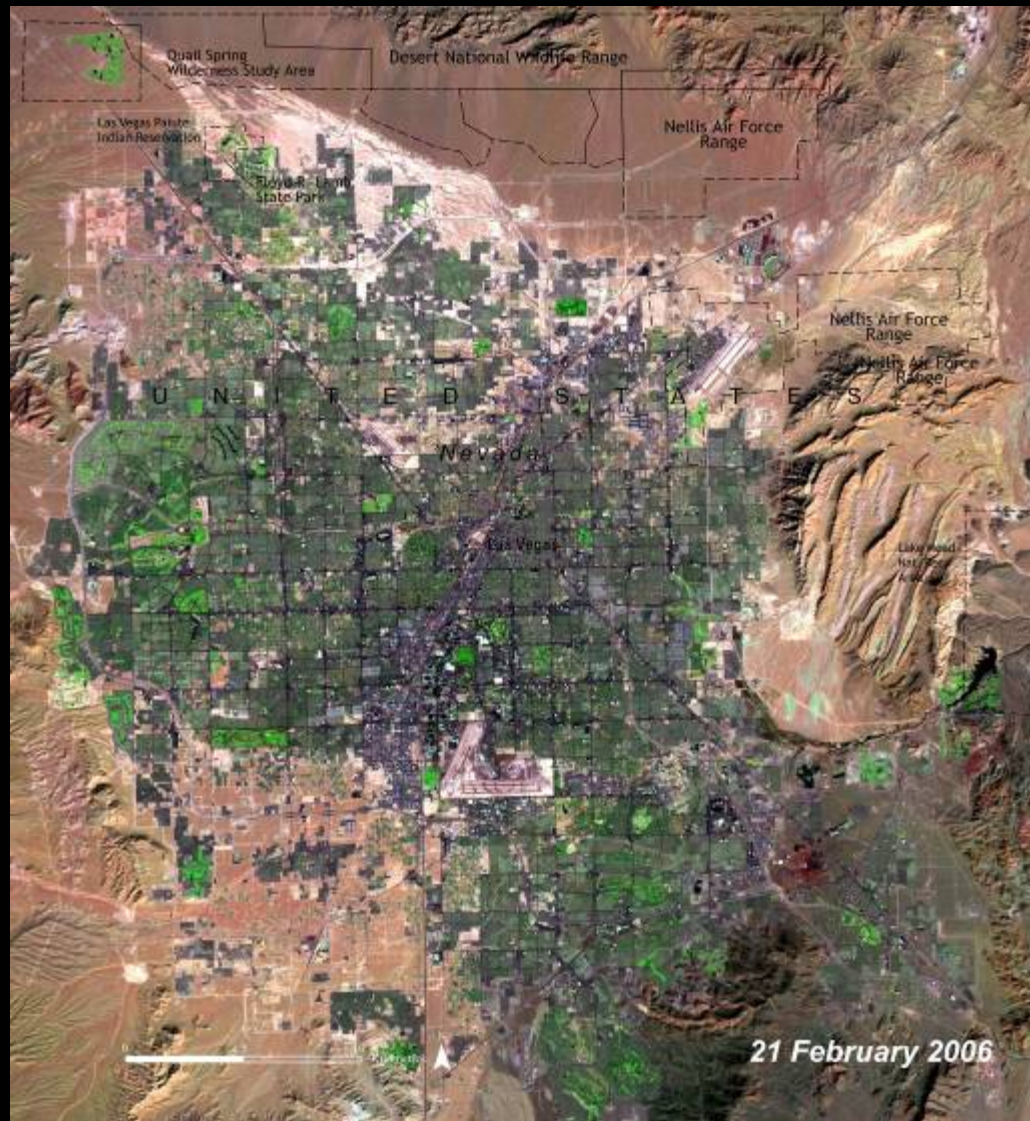
Denser Vancouver, Canada



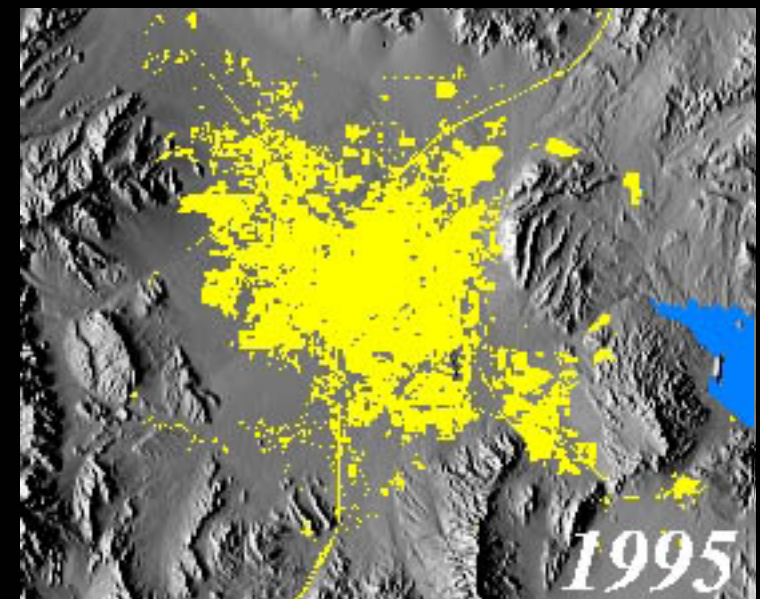
- 1976-2000: The city's population in 2001 was nearly 2 million, compared to 1.3 million in 1976



Las Vegas – Fastest growing metropolitan area in the United States



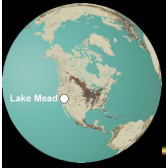
- 1973: A small settlement
- 2000-2006: The landscape is now dramatically modified





Expanding Las Vegas, United States





Drought in the Western United States



2000

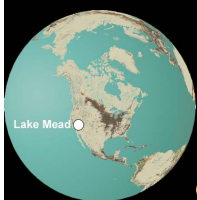
Photo View



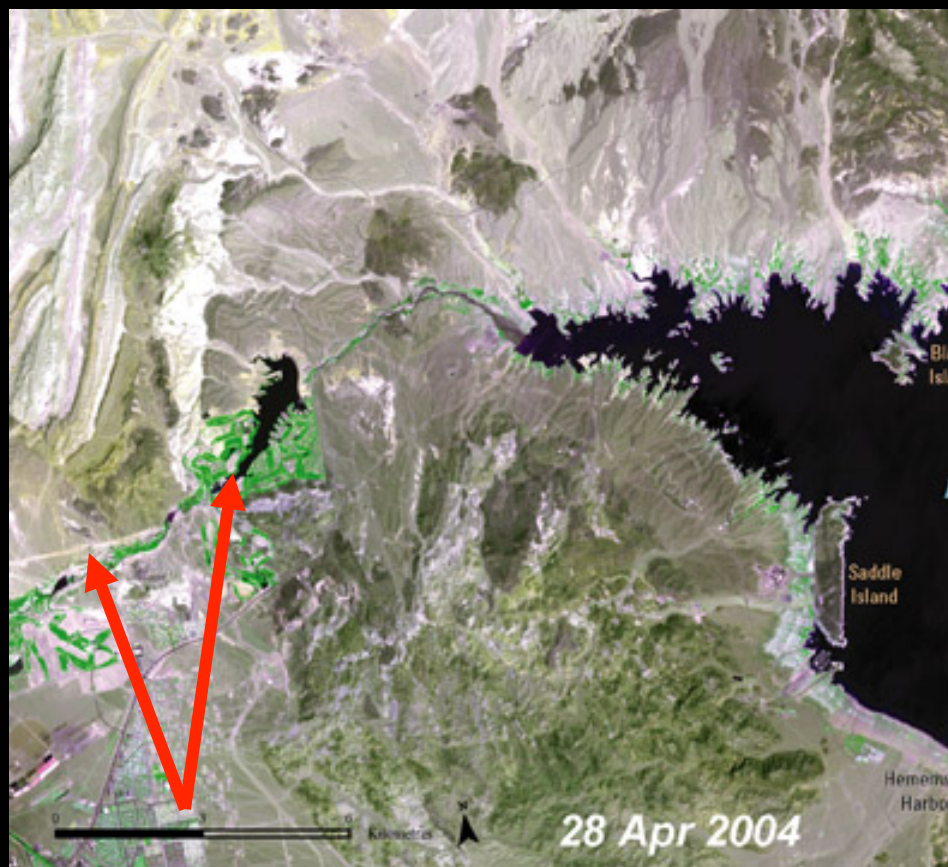
2004

18 meters

Hoover Dam and Lake Mead



Golf courses springing up around Lake Mead United States



New Golf Courses since 2001



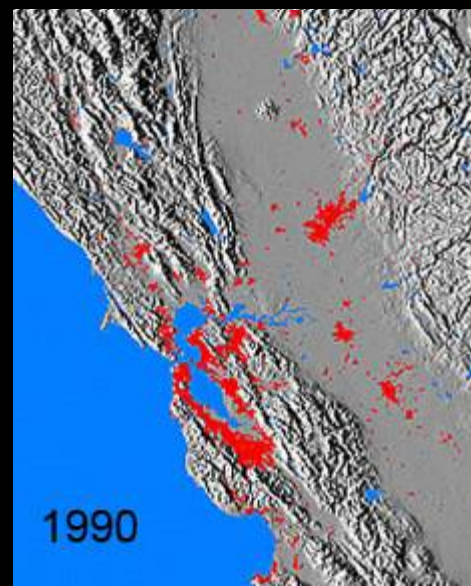
**Expansion of Golf Courses
around Lake Mead**



Growth of San Francisco United States

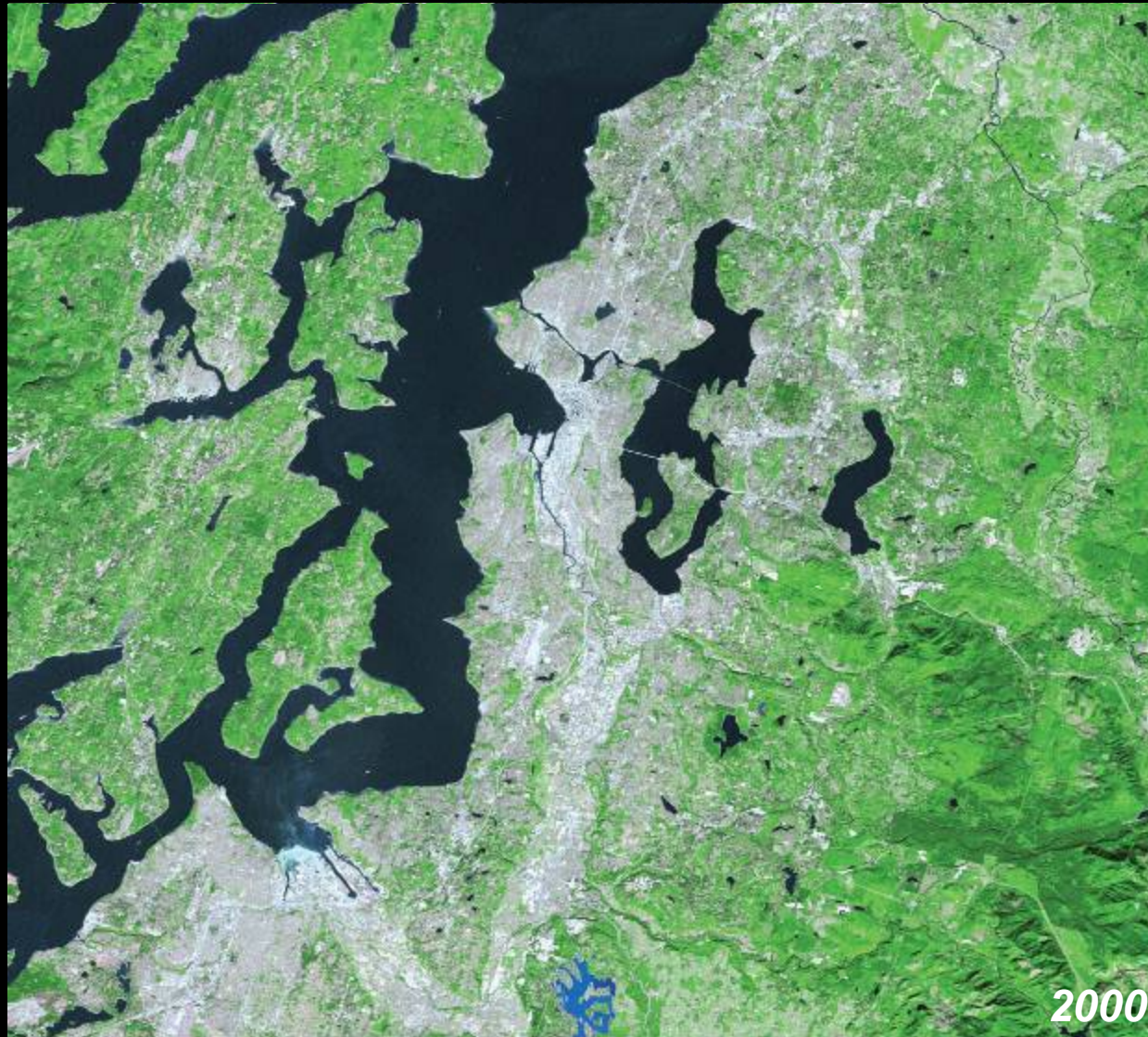


1970-2000: Population
grew from 4.6 million to
7.2 million in the Bay Area





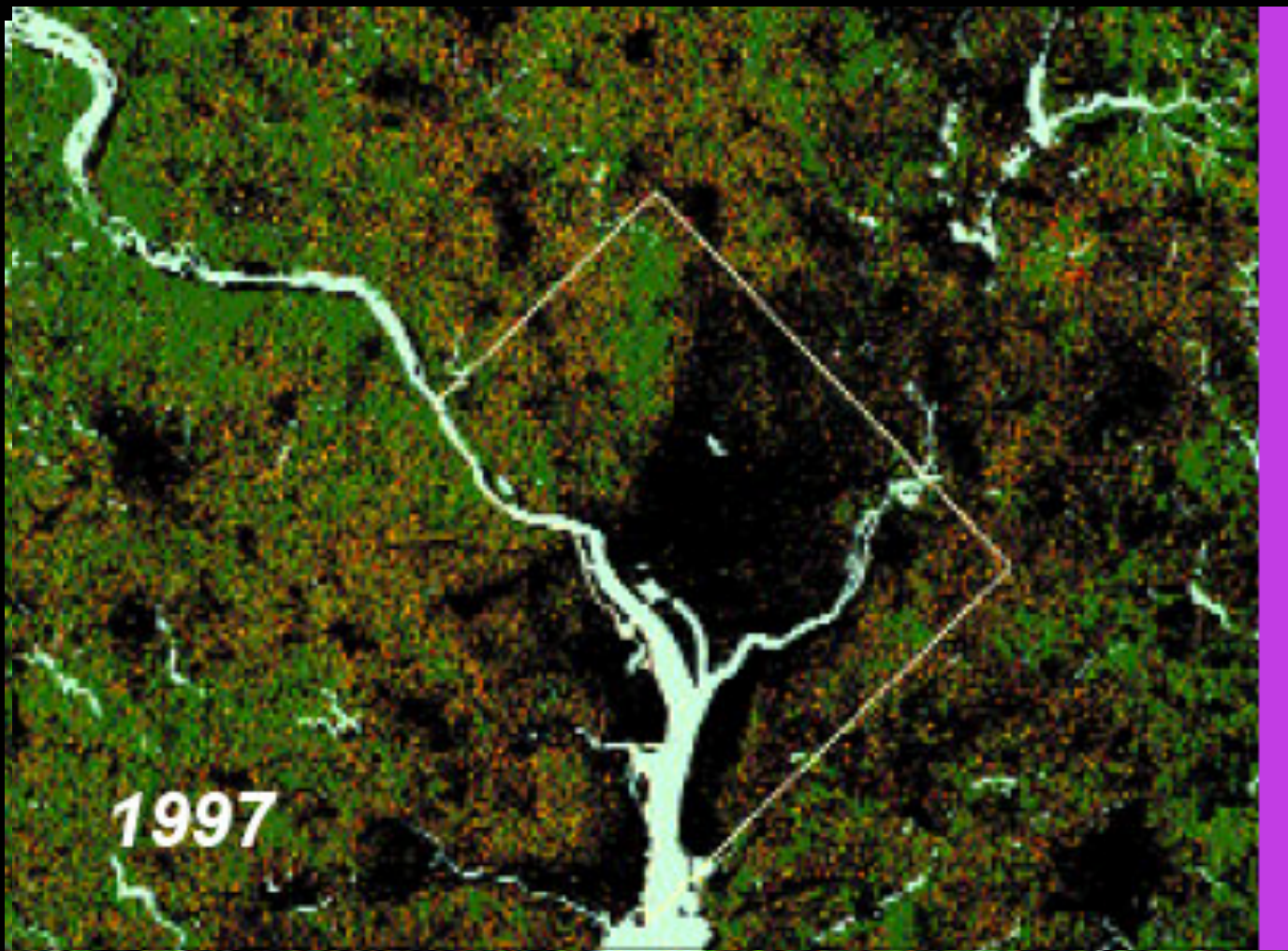
Sprawling in Seattle, United States



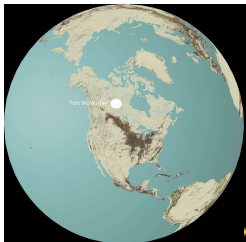
- 1972-2000: Seattle has sprawled since 1980s, with the current metropolitan population estimated at 3.8 million



Urban Forest in Washington D.C. United States



Satellite
images
showing the
dramatic
loss of trees
in the
District



Fort McMurray, Canada



1974-2004: Massive oil extraction from oil sands have remarkably changed the land area of Fort McMurray in Alberta