

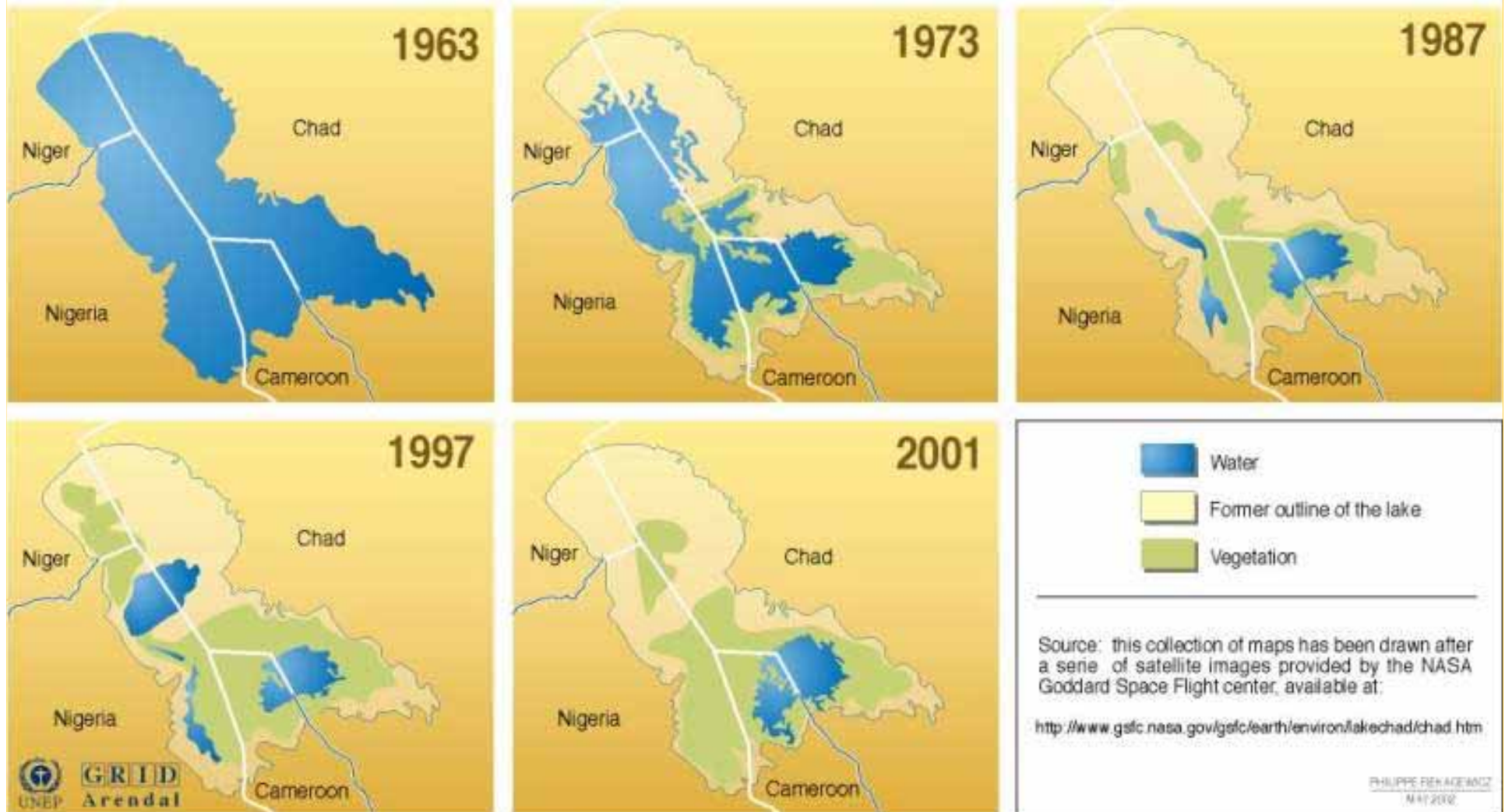


Global Challenges Call for Local Solutions ICLEI World Congress 2006

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Disappearance of Lake Chad



Satellite View of Mesopotamian Marshlands

2000



Huang He, China: Rivers carry sediments



“Yellow River” one of the world’s muddiest rivers.

Brings sediments such as mica, quartz and feldspar from north central China.

Between 1979 and 2000 a giant animal-like head has formed in the delta as a result of sedimentation.

Change is largely due to land use changes and deforestation.

Almeria, Spain: From Fields to Greenhouses



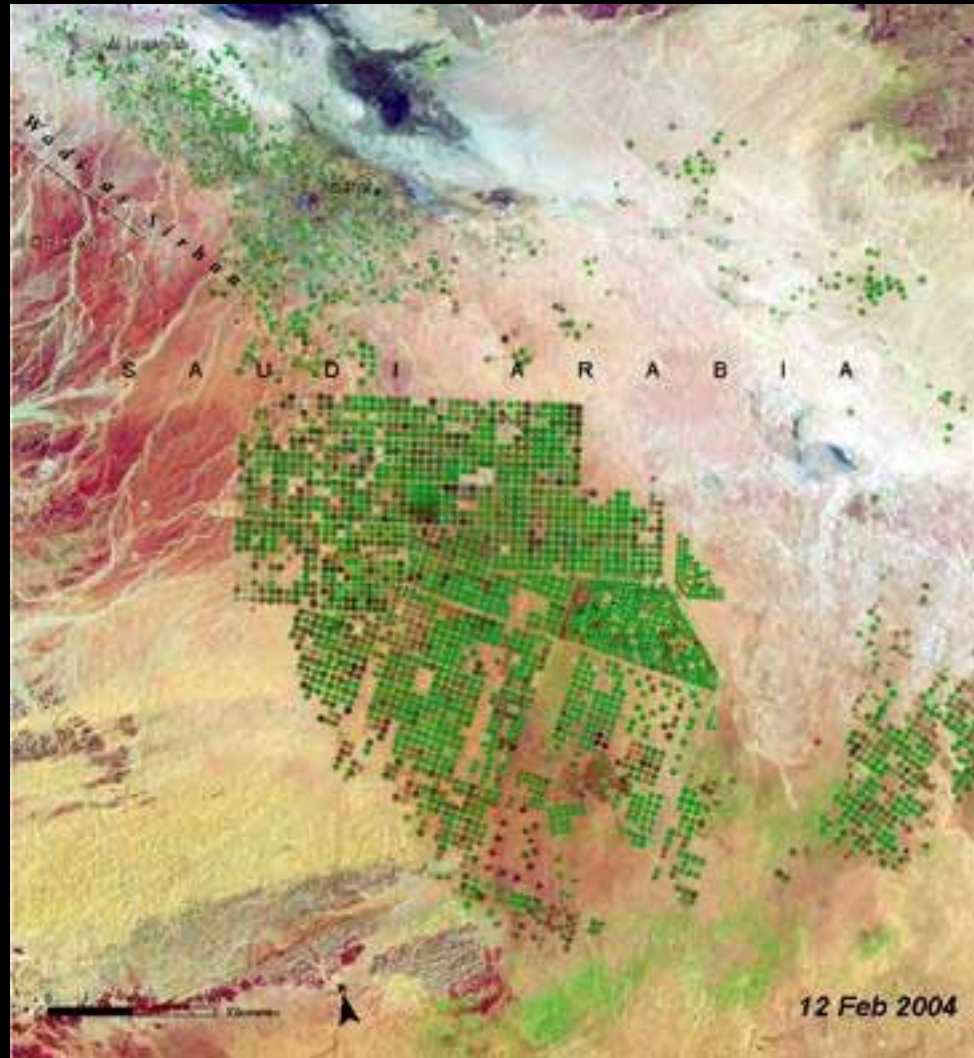
1974: typical rural agricultural area

2004: Greenhouses blanket the plain from shoreline to the base of the mountain.

20,000 hectares transformed into glass houses to produce crops

Heavy demand on water supplies.

Al Isawiyah, Saudi Arabia: Irrigating the Desert



- 1986 -A desert landscape
- 1991 -Irrigation begins...
- 2000 -And transforms the desert
- 2004 –Irrigation intensity increases
- Farms are tapping into ancient water supplies at an unsustainable rate.

Gulf of Fonseca, Honduras: Shrimp Farms Replacing Mangroves



1987-1999: shrimp farms and ponds have mushroomed around the Gulf of Fonseca, Honduras (blocks of blue and black shapes).

Mangroves, natural coastal defenses and natural fish nurseries have been cleared for the farms.

Increase in pollution and damage to ecosystem due to indiscriminate capture of marine life during collection of shrimp larvae to restock ponds.

Species Decline in Europe

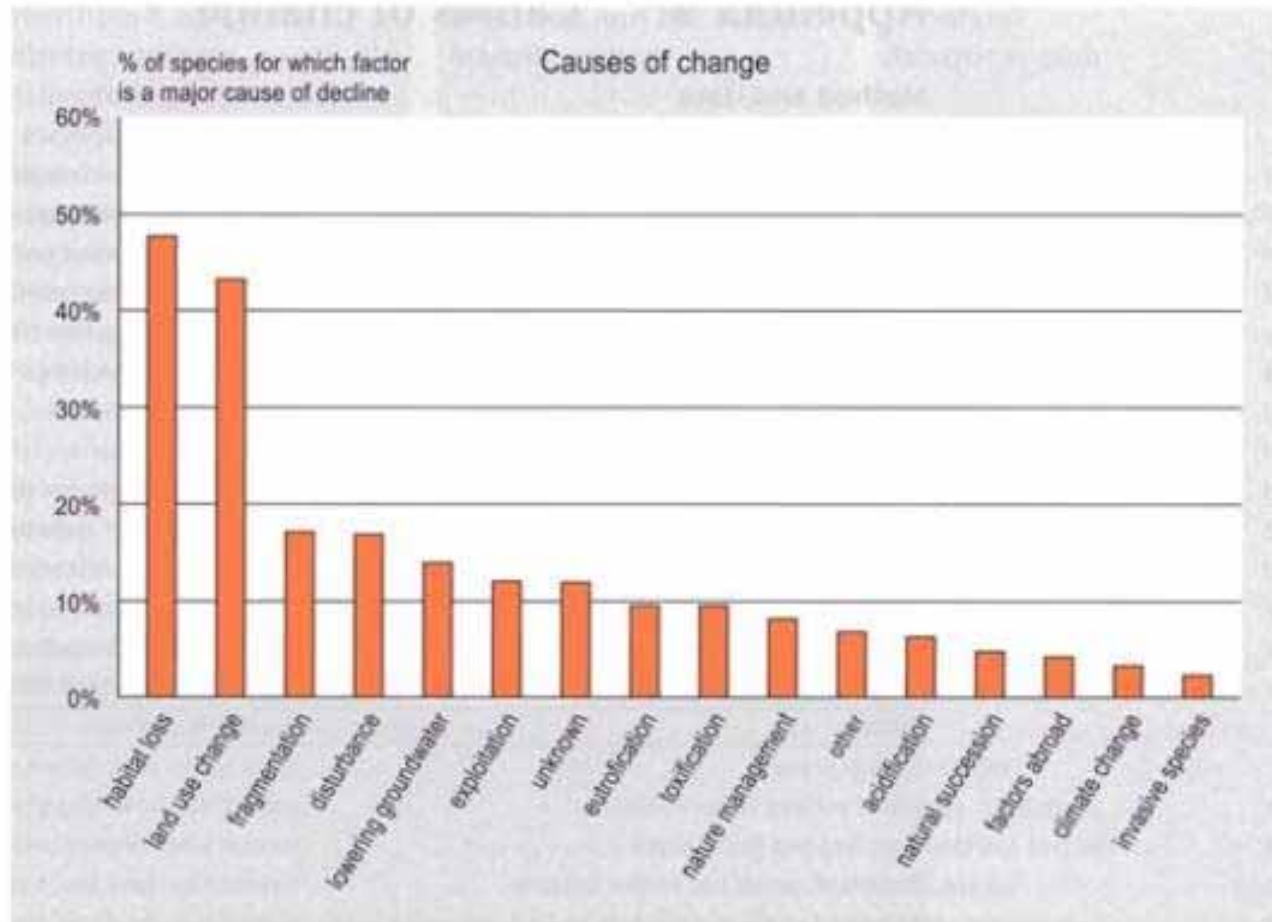


Figure a. Relative importance of pressures on species (in the ecoregions as investigated in this test), expressed as the percentage of species populations (i.e. a species in a building block) declining due to each of the pressures. The category 'other' includes increased sedimentation, fire, over fishing, loss of old buildings. These factors were found relevant for birds. Based on all species included in the indicator.

Mexico City, Growth of a Megacity



1973 – 9 million with growth concentrated in the center of the city

2000 – some 20 million with the city expanding into surrounding rural areas

Growth of San Francisco

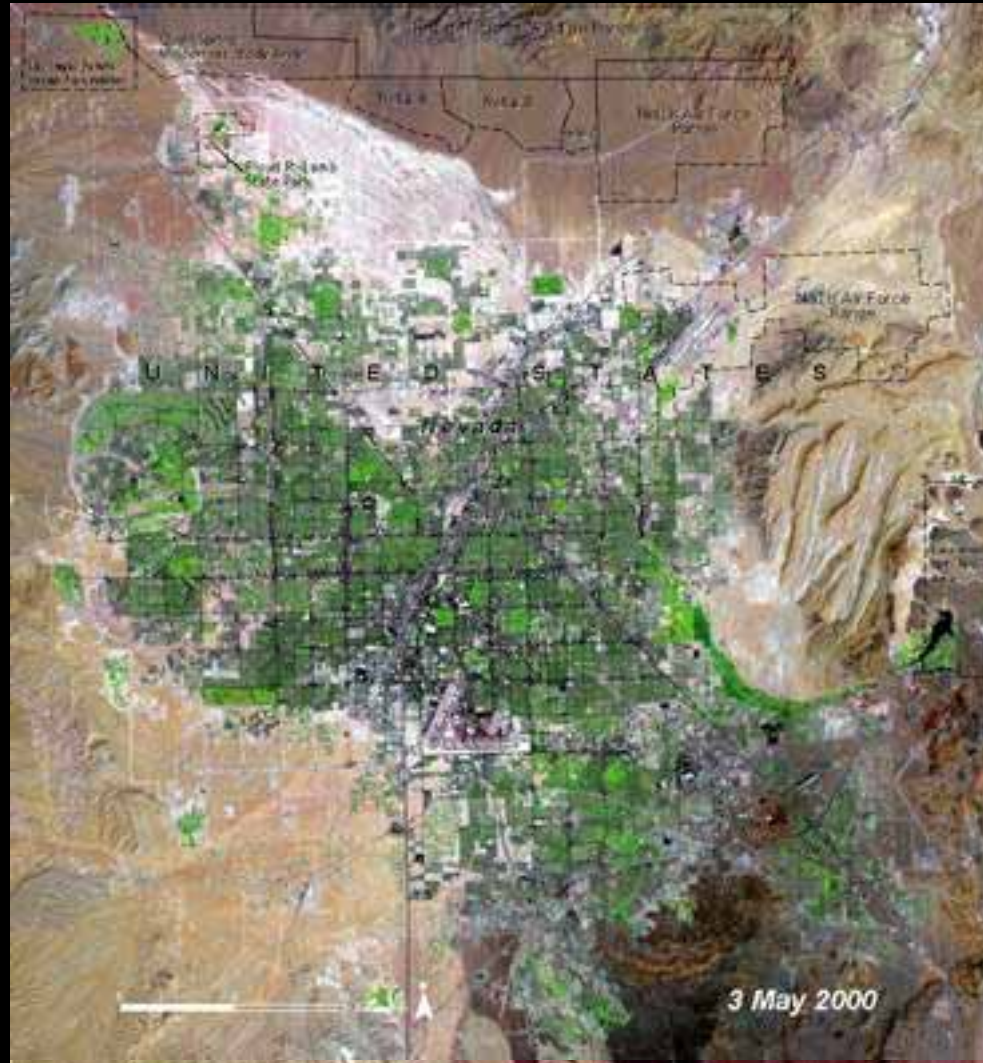


1970-2000: Population grew from 4.6 to 7.2 million in the Bay Area

Preserved much of its urban forest

Images courtesy
USGS

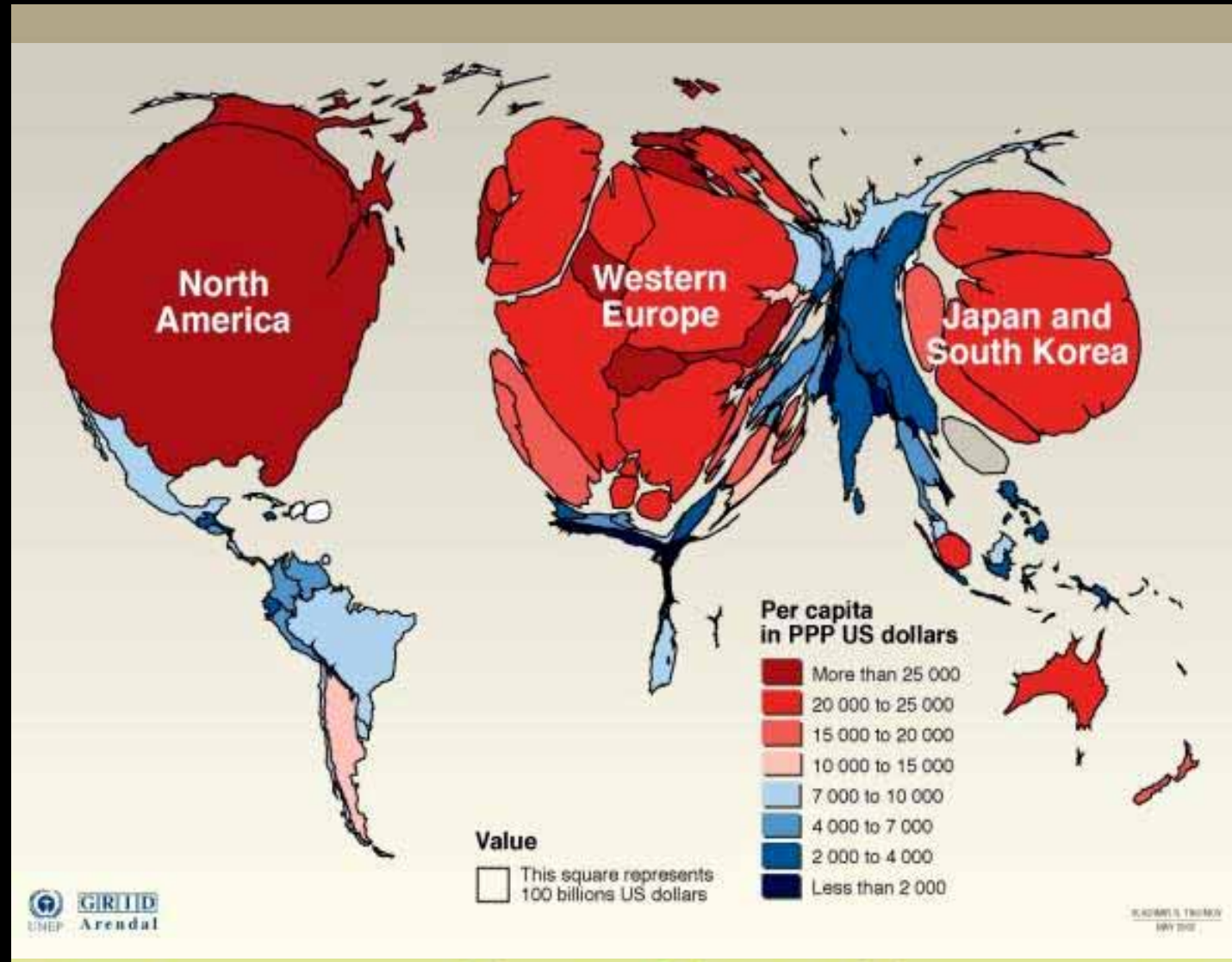
Expanding Las Vegas



1973 - A small settlement

2000 - Landscape dramatically modified with population over 1 million and growing fast...

World Gross Domestic Product



Degradation of ecosystems often causes significant harm to human well-being

- The total economic value associated with managing ecosystems more sustainably is often higher than the value associated with conversion
- However, conversion may still occur because private economic benefits are often greater for the converted system

