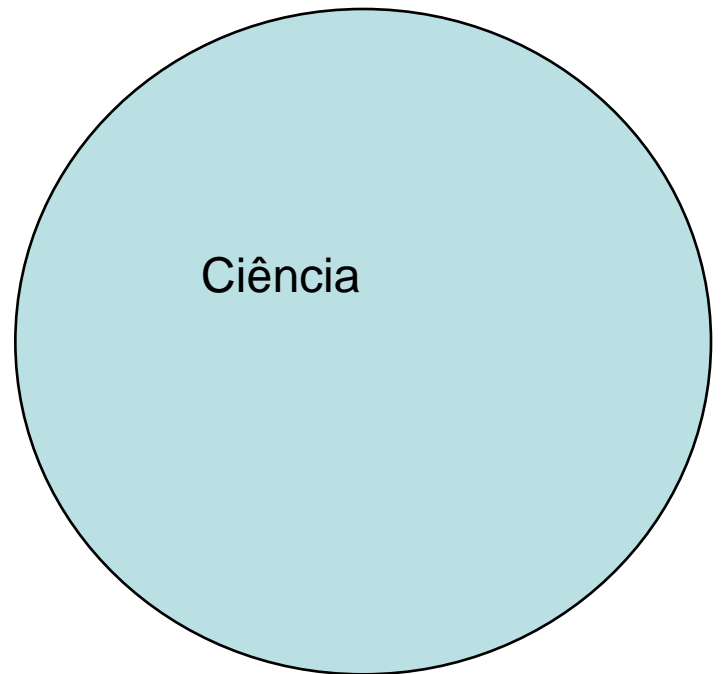
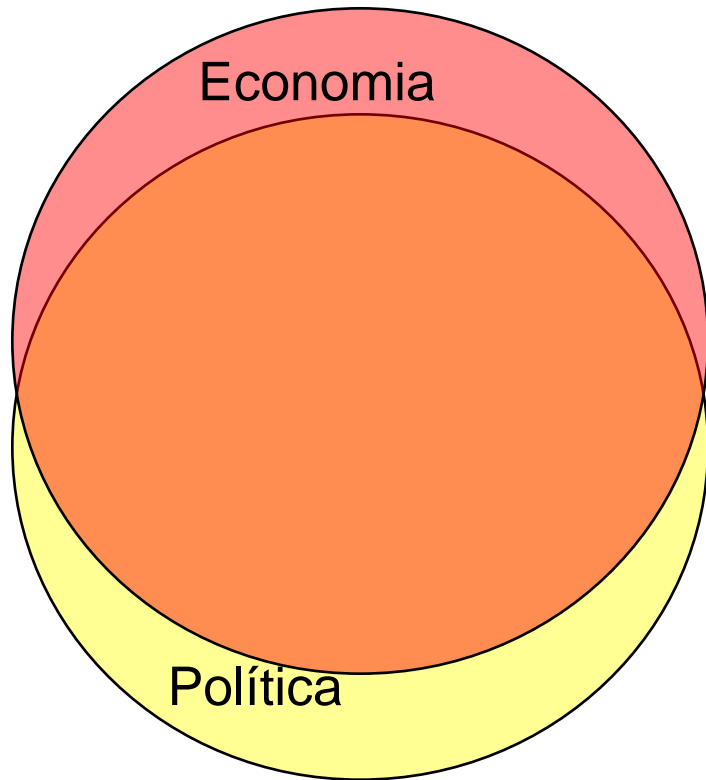


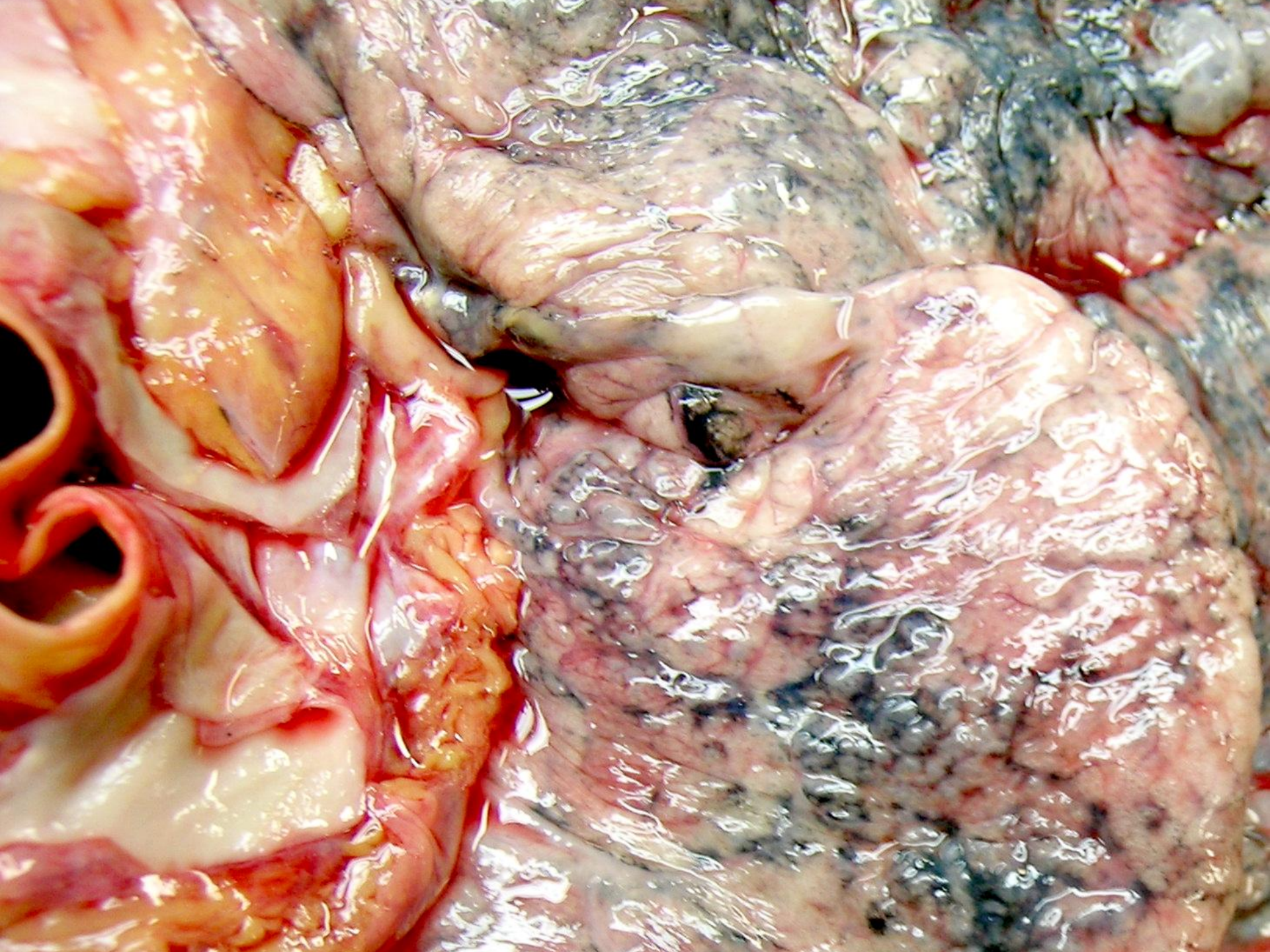
Note: Because of its very high GDP, Luxembourg was excluded to simplify the visual presentation (life expectancy = 77, GDP = \$50,061).

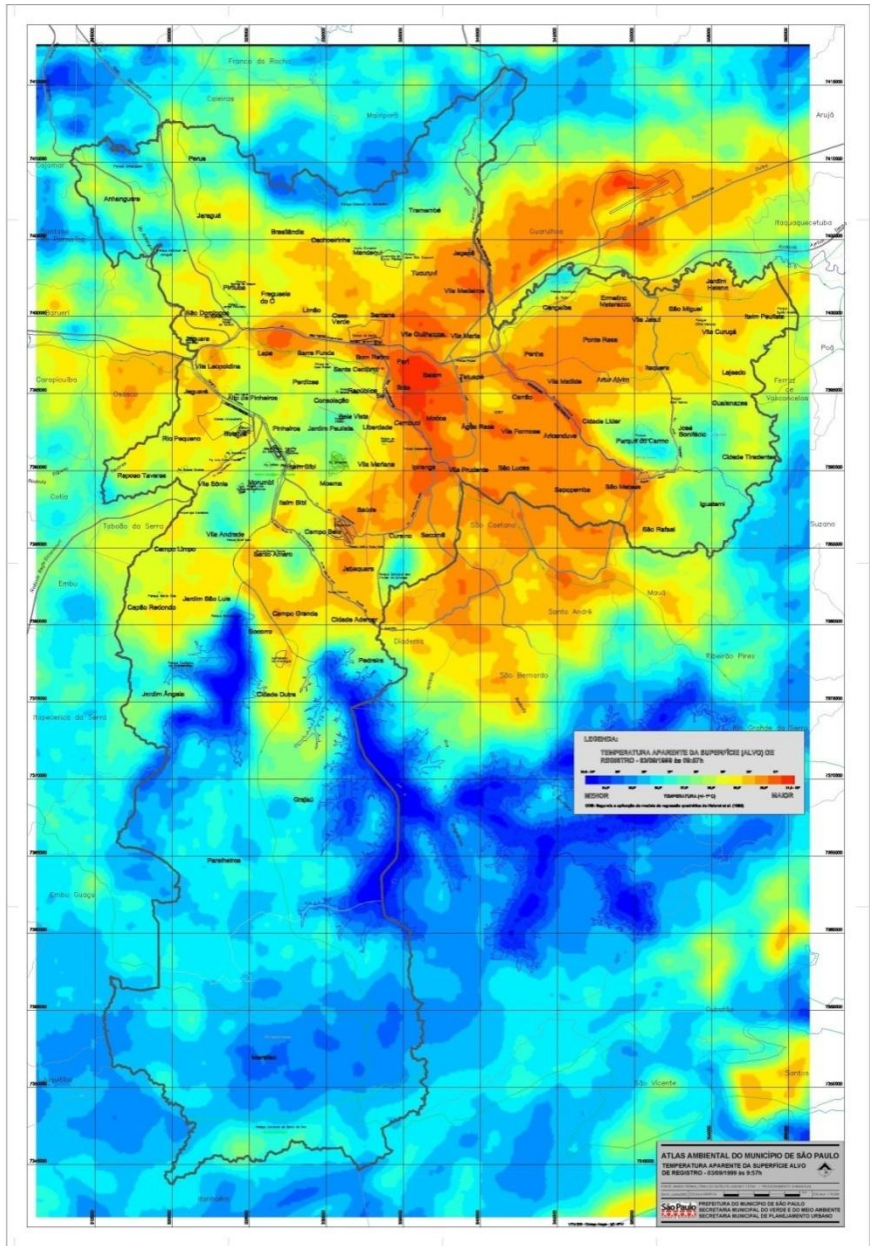
Source: World Bank 2002.

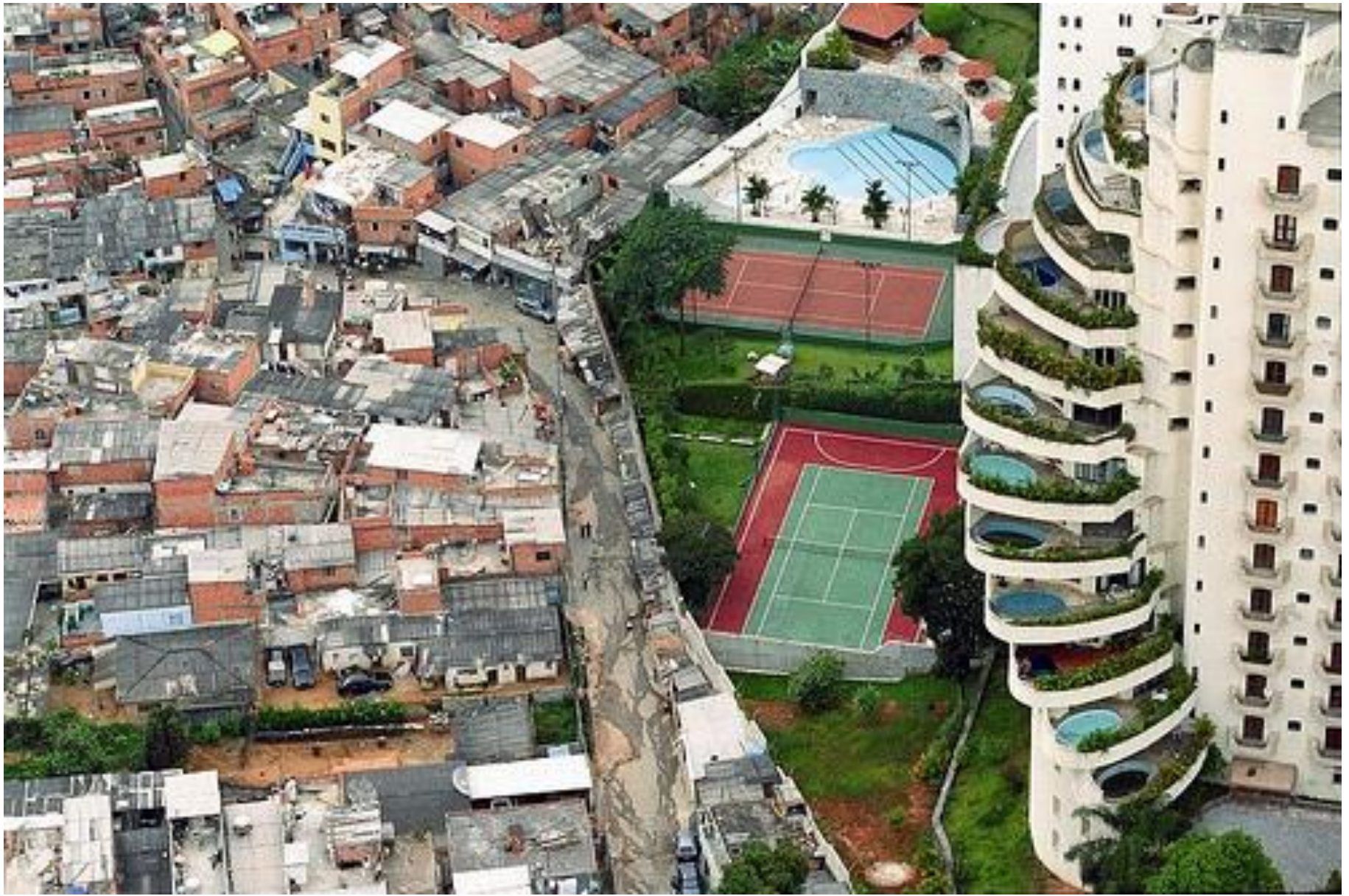




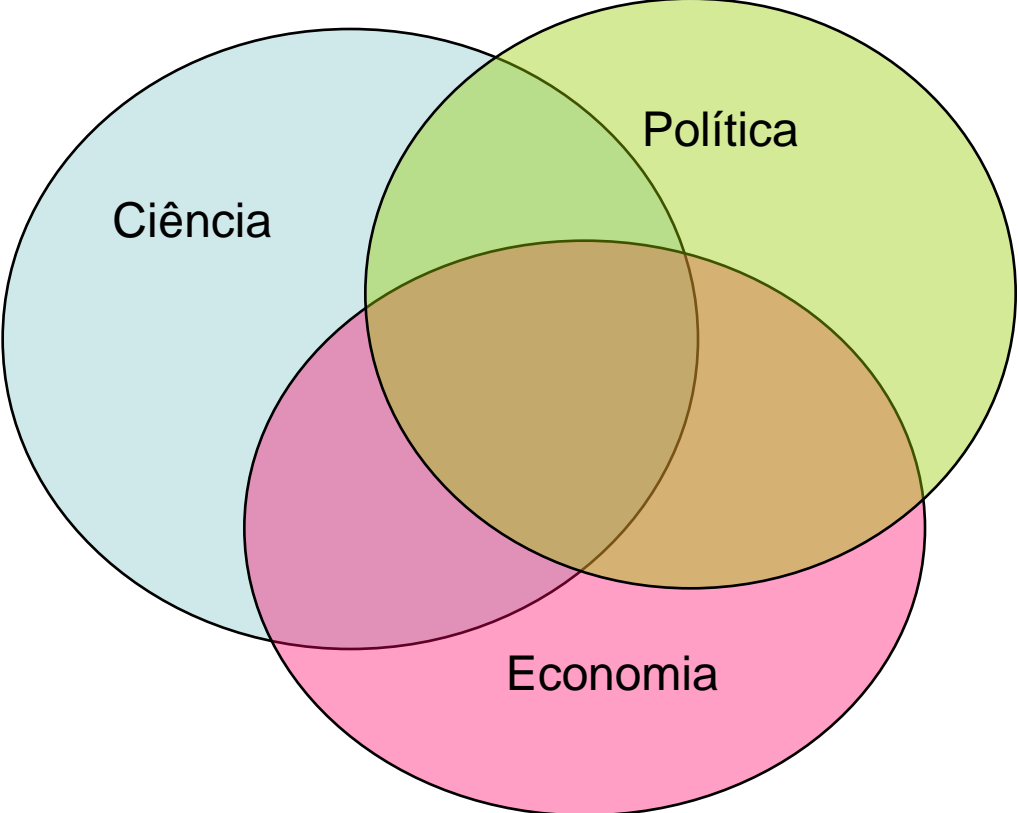


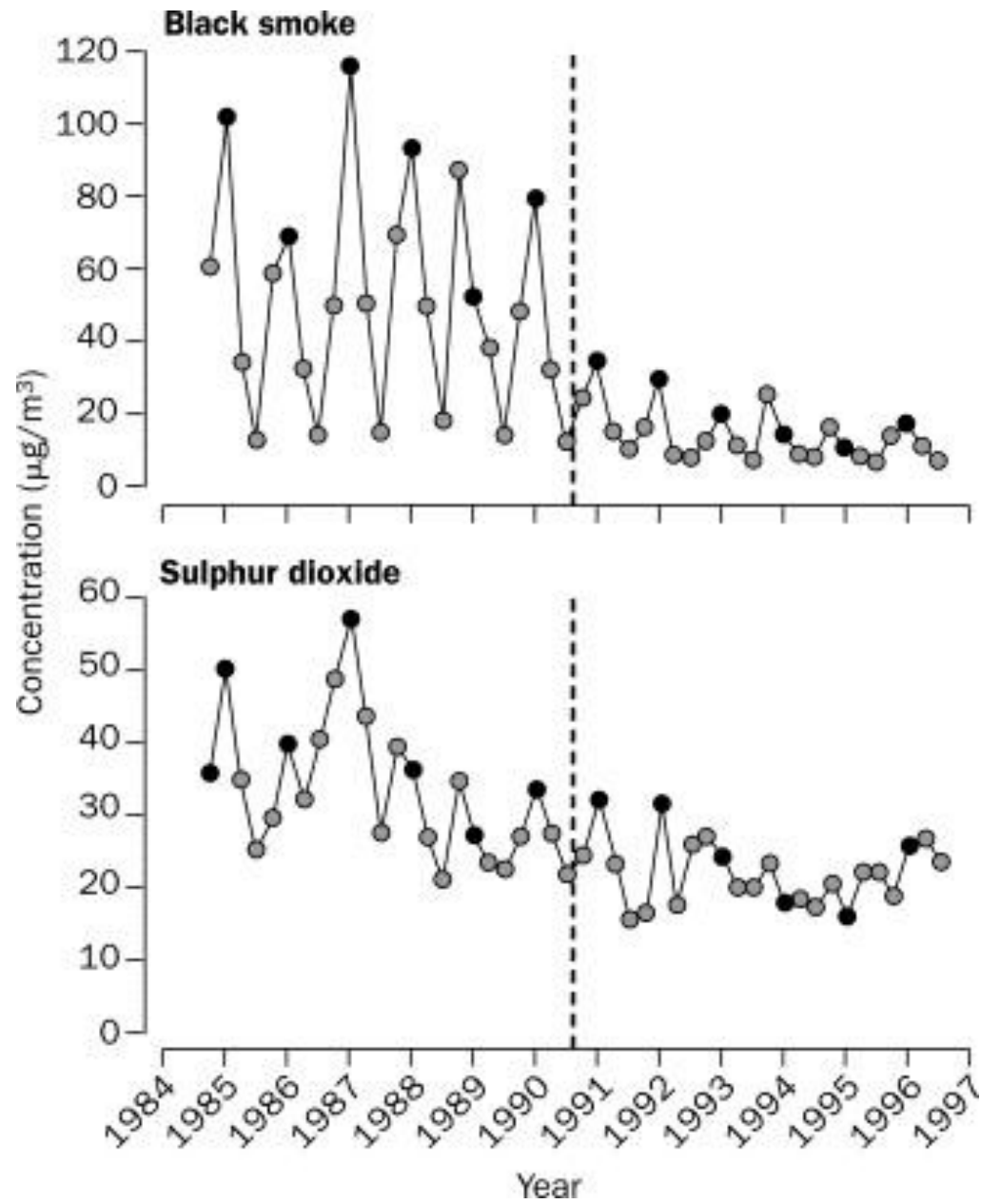


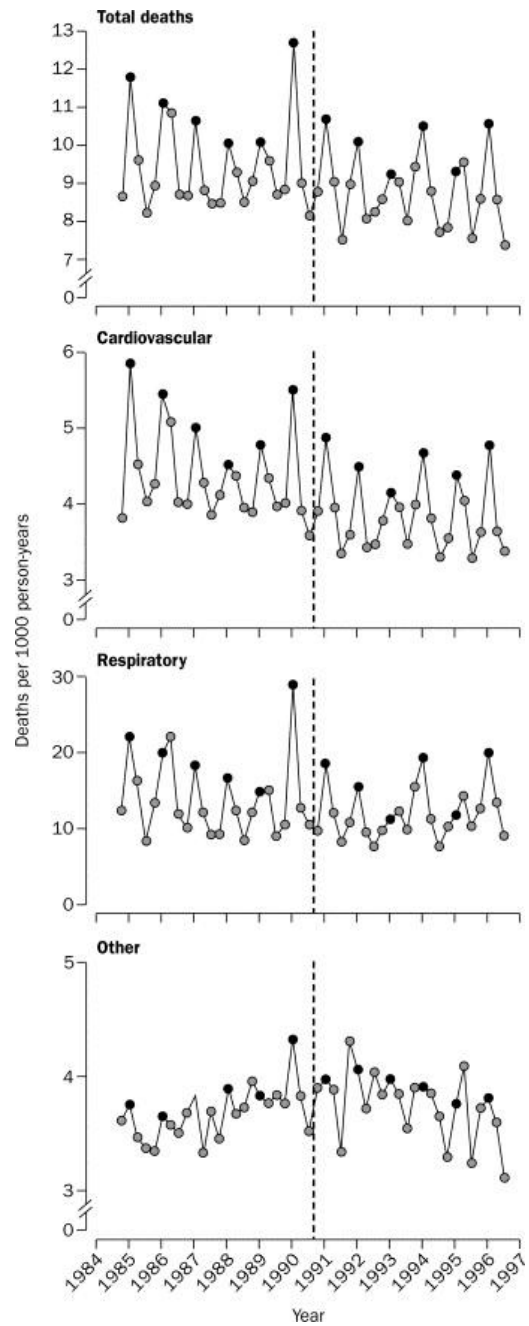


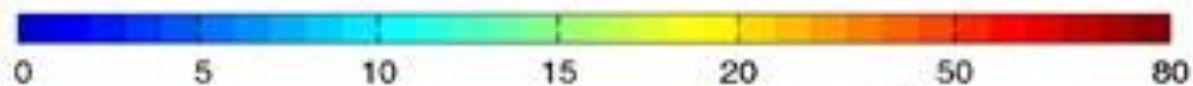
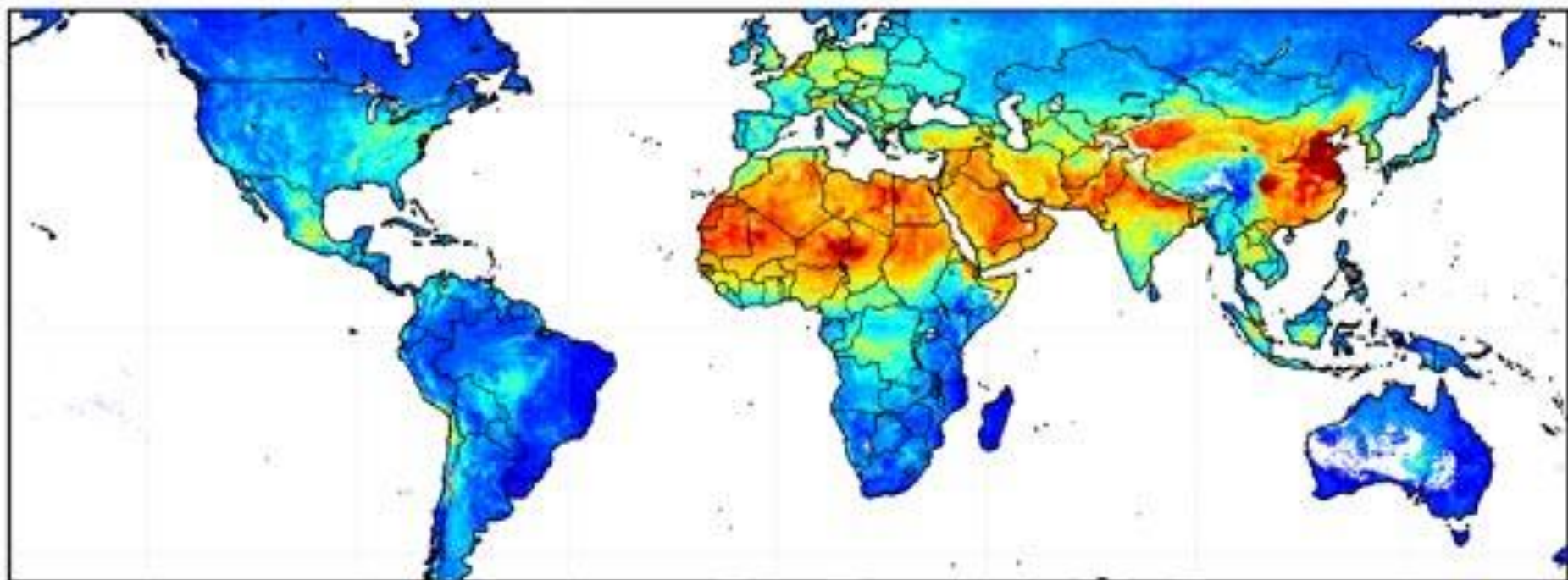




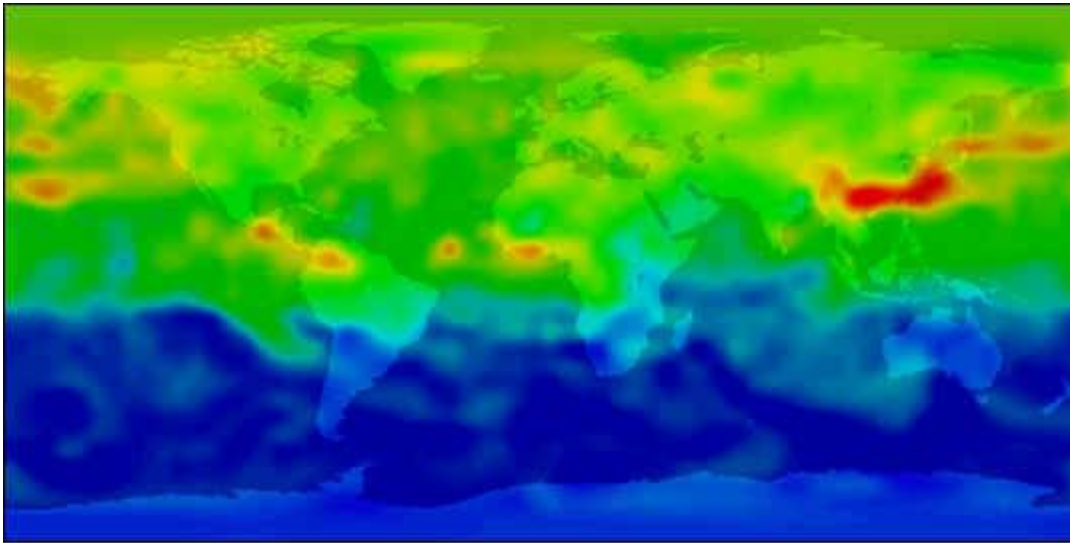




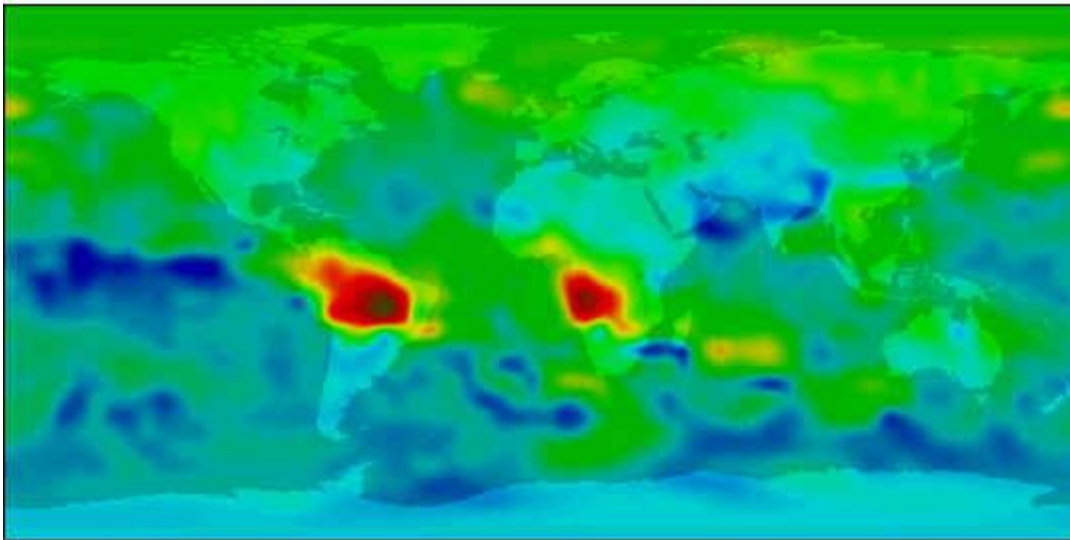




Satellite-Derived PM_{2.5} [$\mu\text{g}/\text{m}^3$]



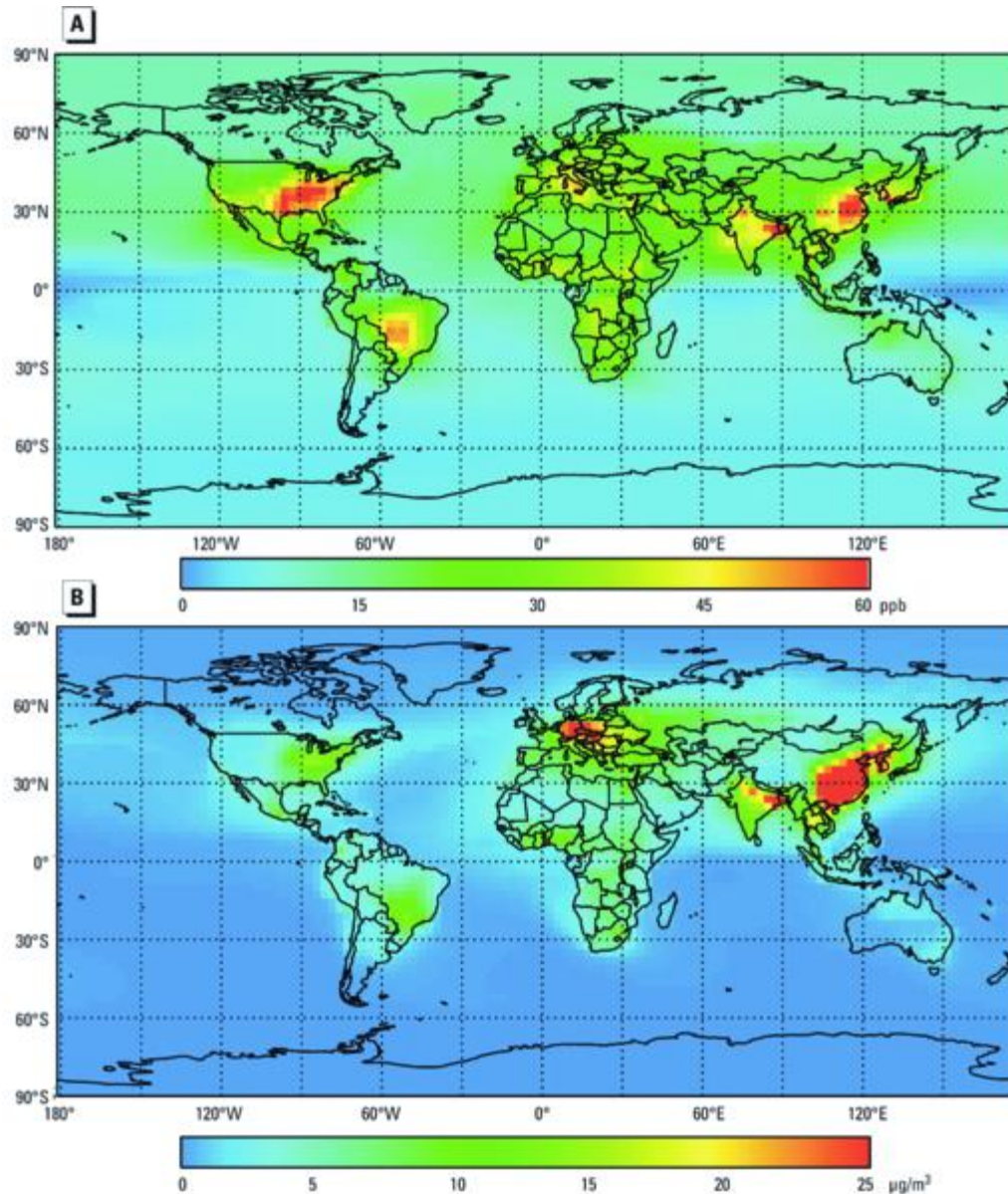
April 30, 2000



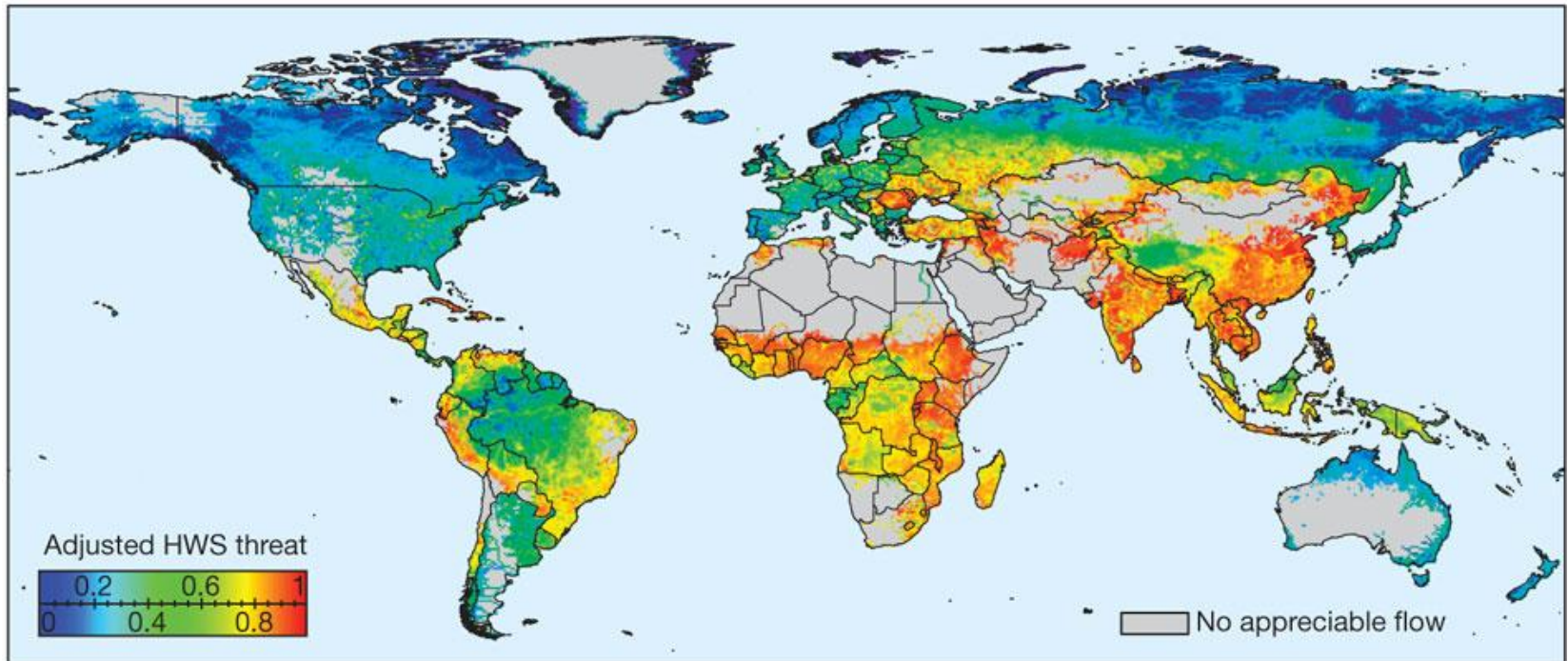
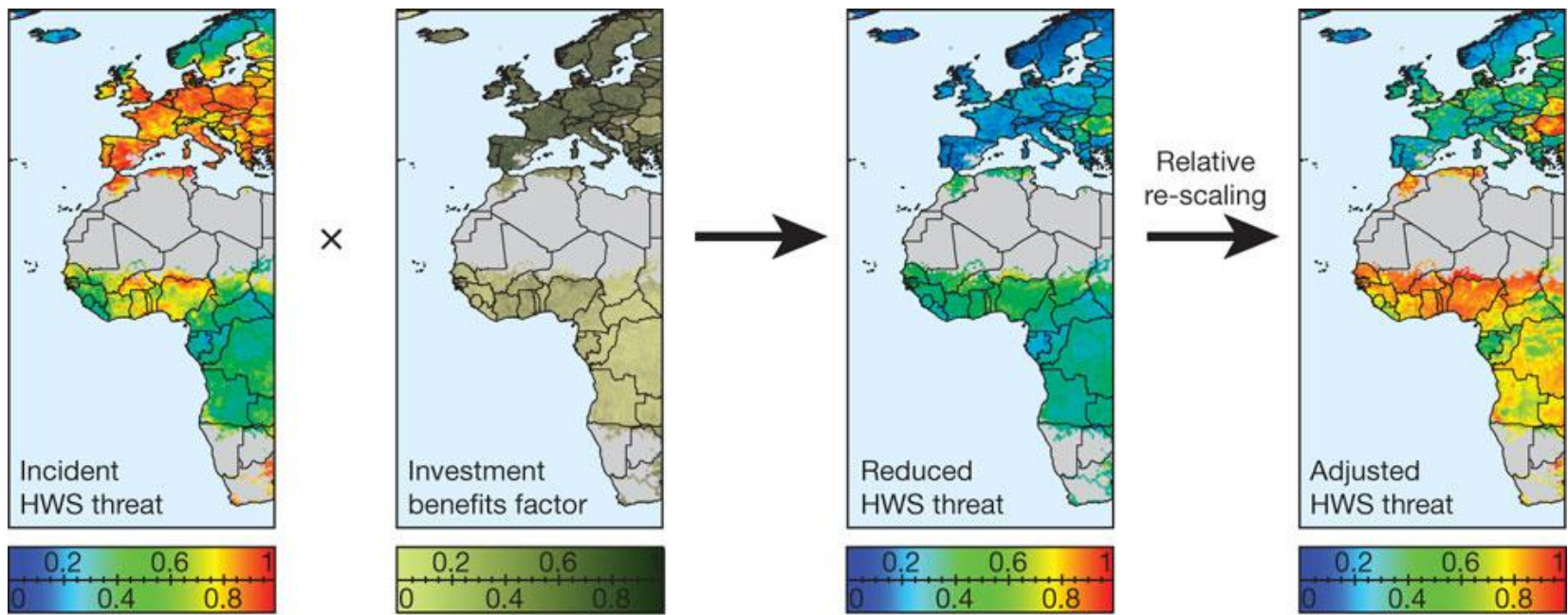
October 30, 2000

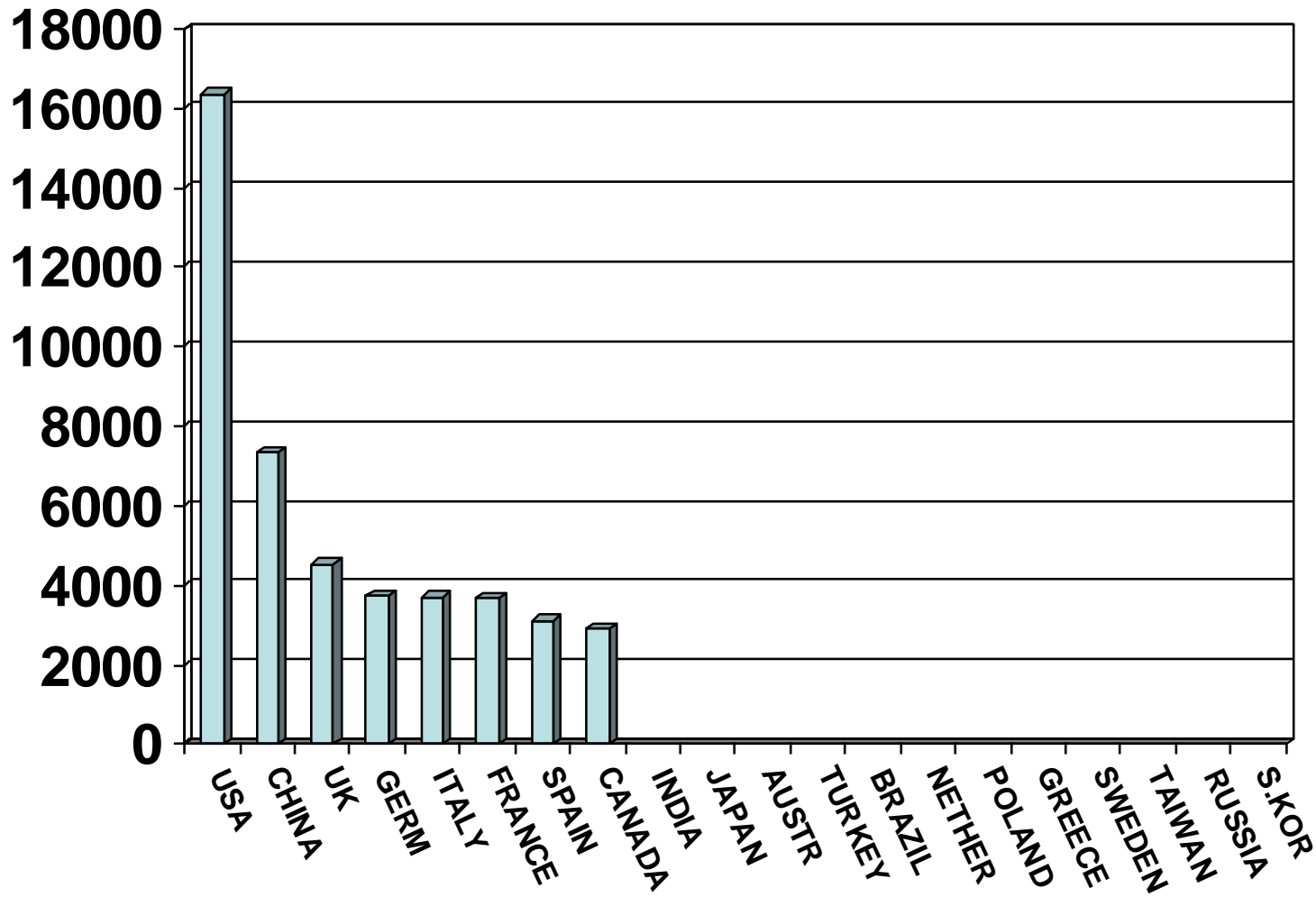
Carbon Monoxide Concentration (parts per billion)

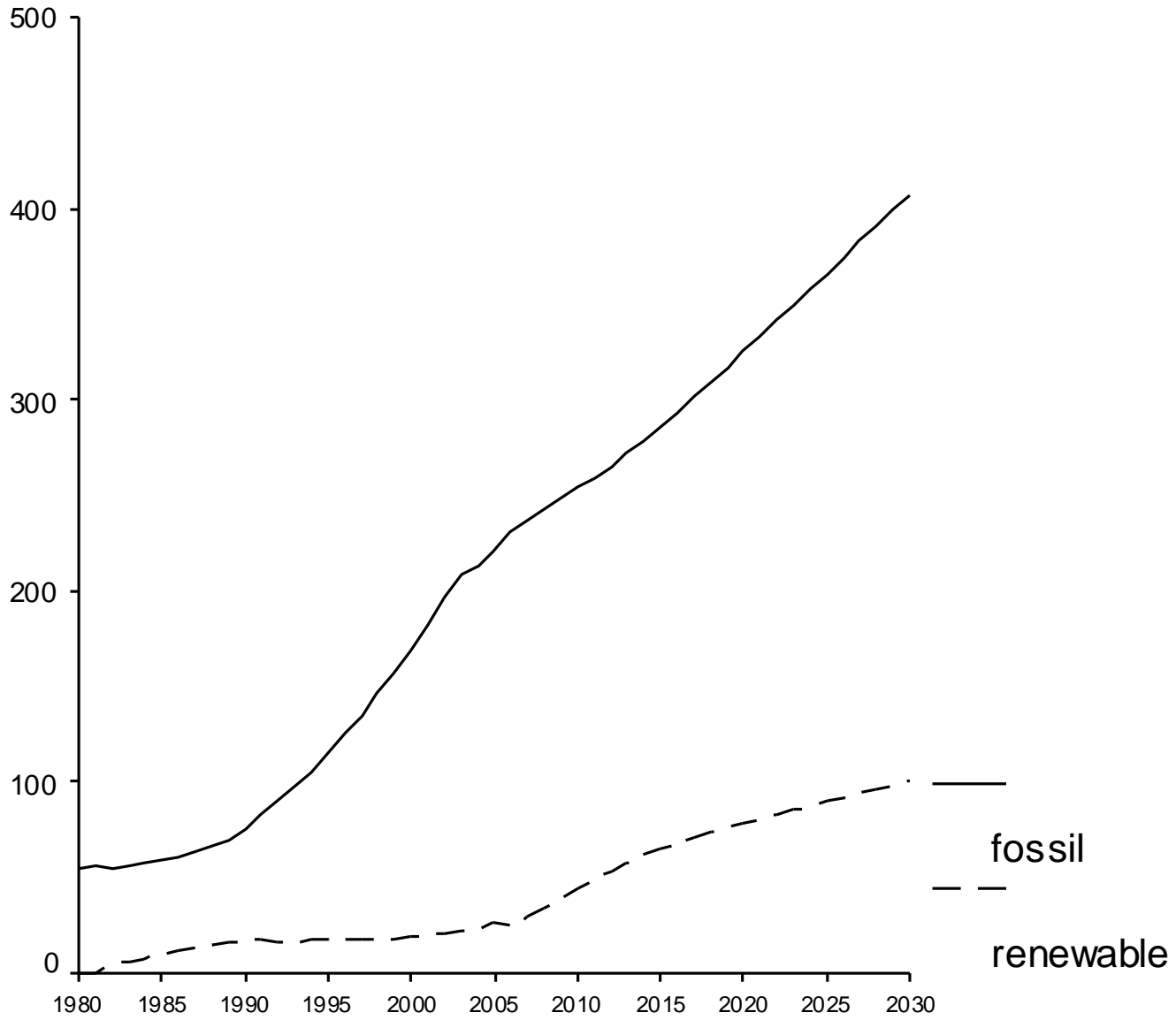




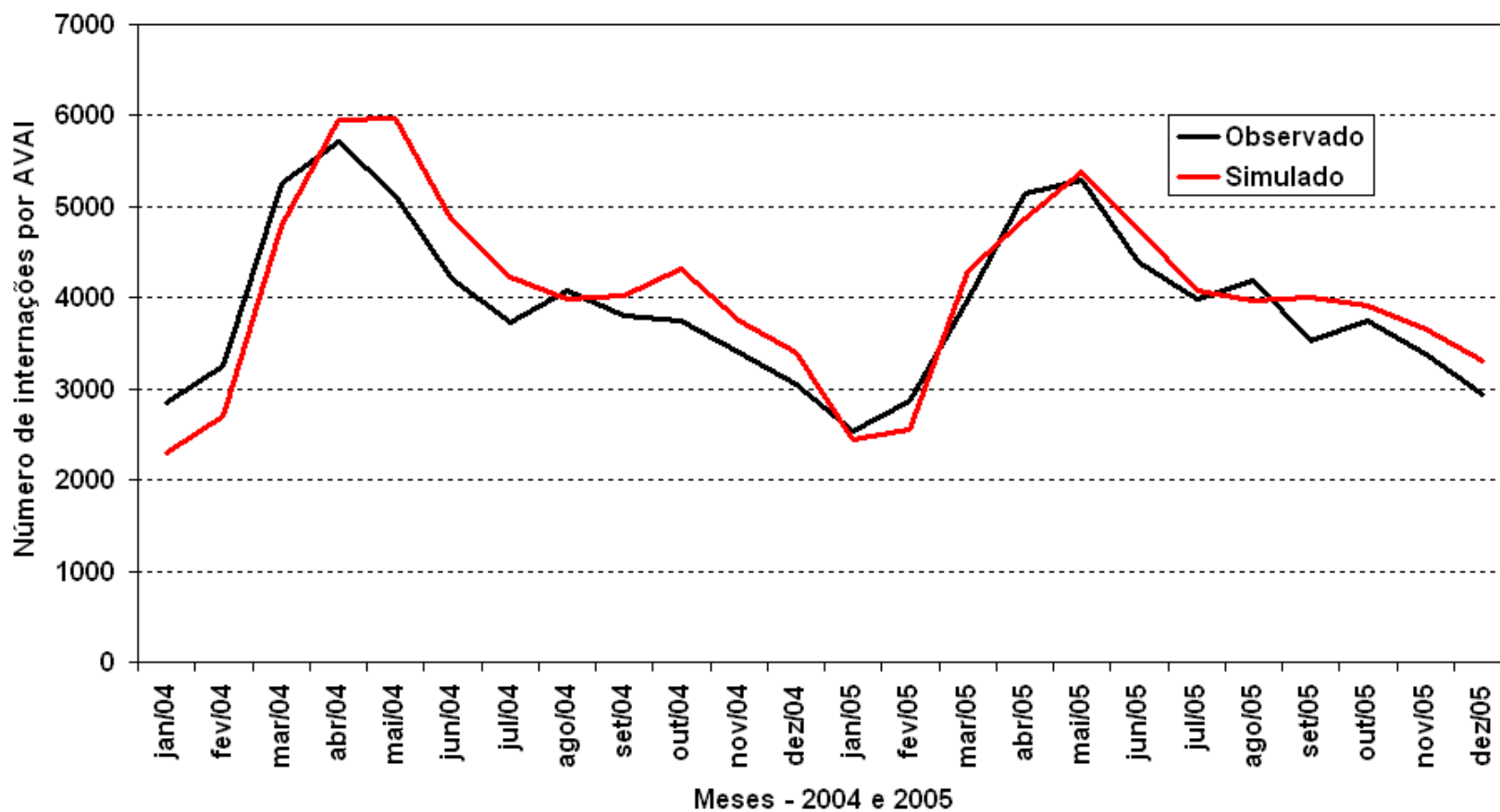
Anenberg et al Environ Health Perspect 118:1189-1195.

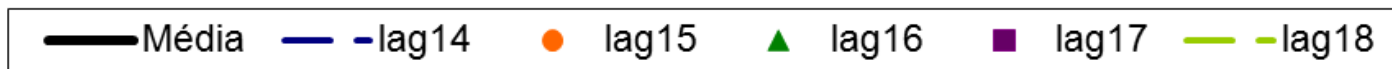
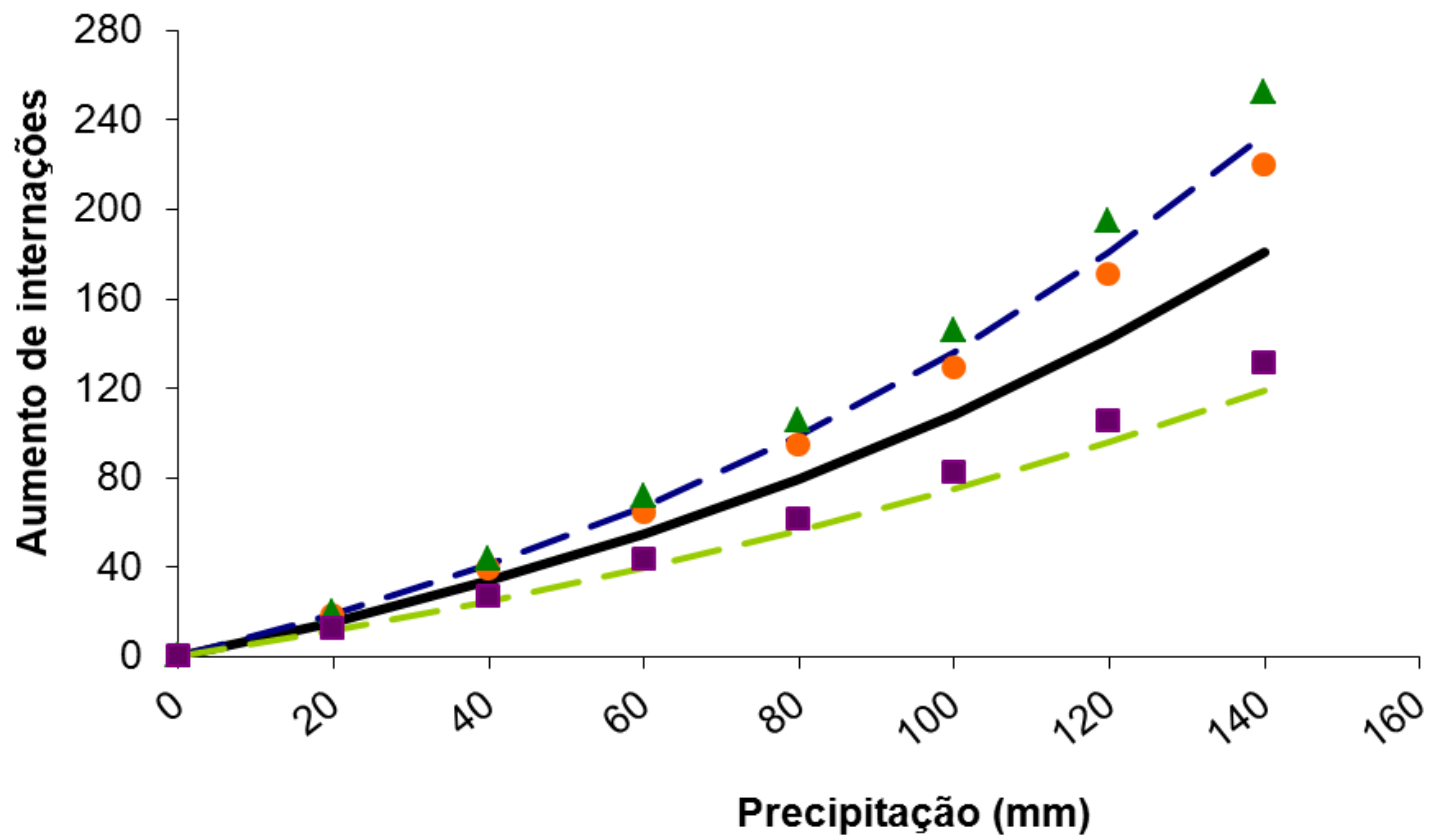


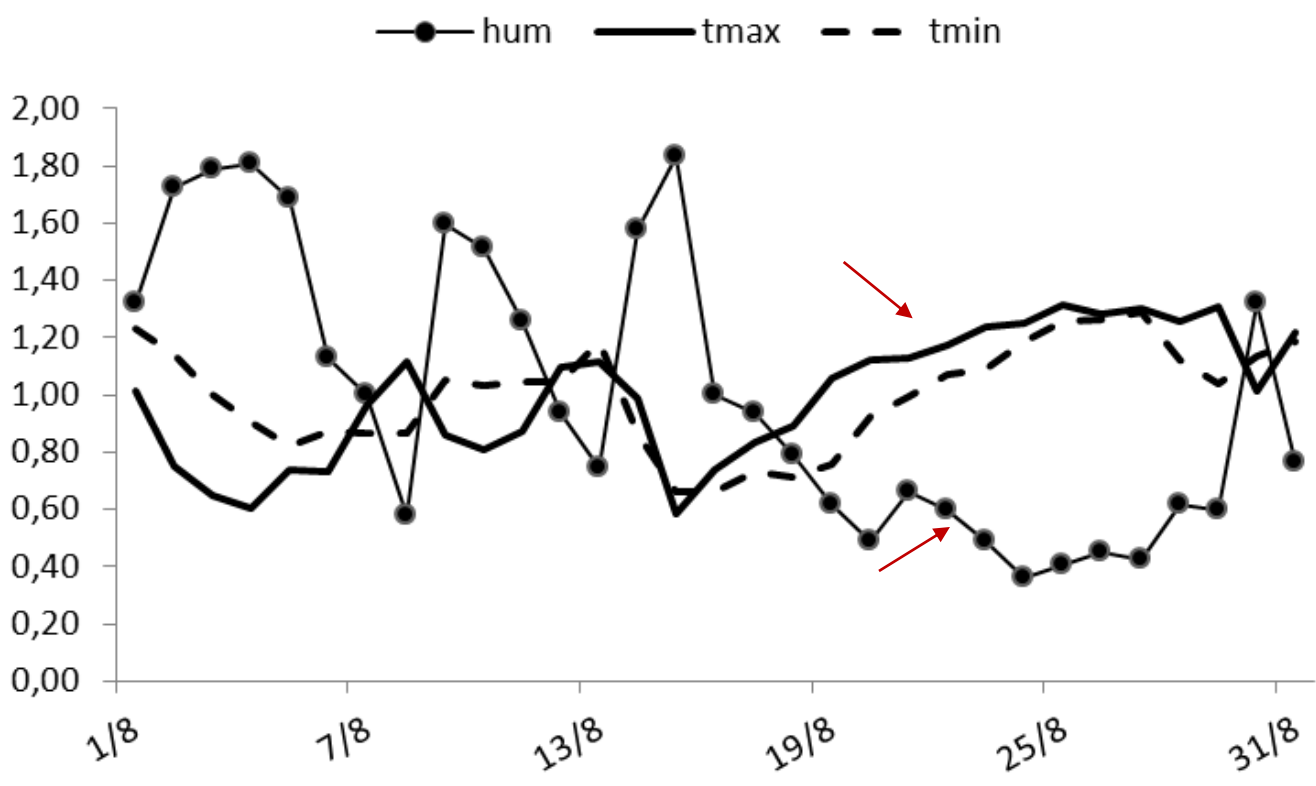


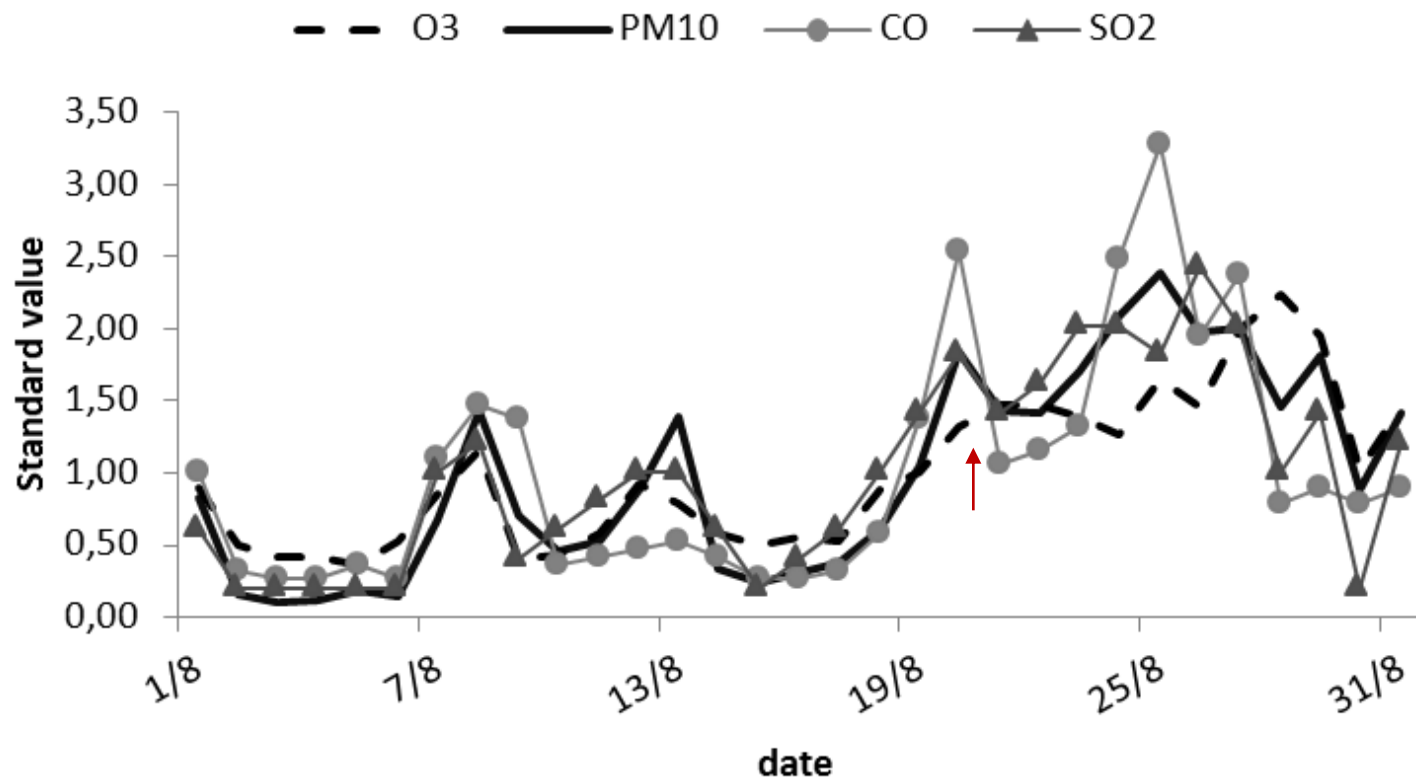


Comparação entre dados observados e simulados de Casos de AVAI na cidade de São Paulo





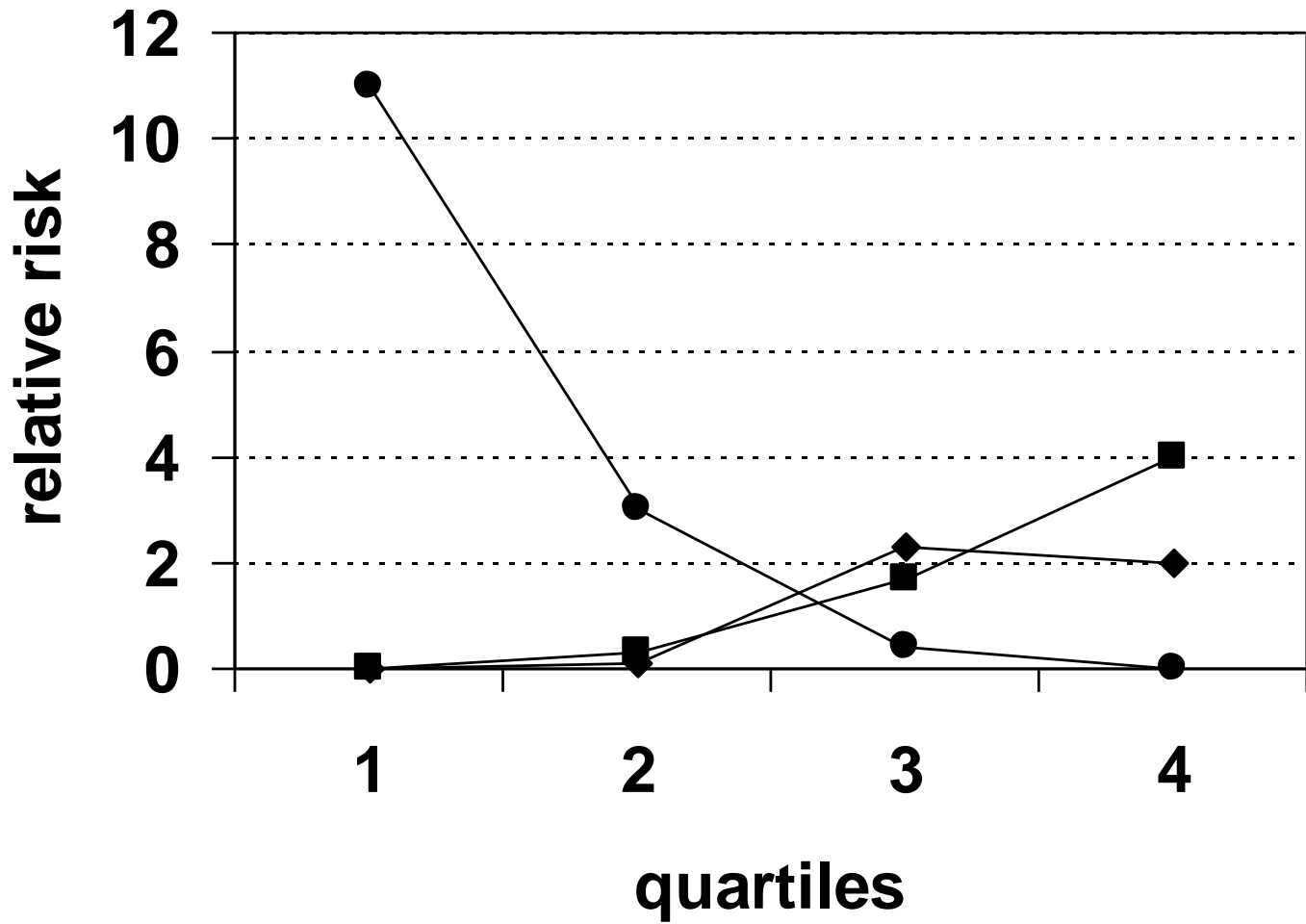




Variáveis	OR
O ₃ (0 – 69 µg/m ³)	0,1
O ₃ (70 – 116 µg/m ³)	0,3
O ₃ (117 – 185 µg/m ³)	2,3
O ₃ (186 – 291 µg/m ³)	2,0
PM ₁₀ (0 – 25 µg/m ³)	0,1
PM ₁₀ (26 – 62 µg/m ³)	0,3
PM ₁₀ (63 – 101 µg/m ³)	1,7
PM ₁₀ (102 – 166 µg/m ³)	4,0
Hum (0 – 28 %)	11
Hum (29 – 44%)	3
Hum (45 – 67%)	0,4
Hum (67 – 86%)	0,4

Variáveis	Quartis (%)	OR (p<0.05)	IC_{95%}
Hum (0 – 28 %)	Q1 (0 – 25)	13.1 (0.03)	1.3:134.9
O ₃ (117 – 185 µg/m ³)	Q3 (50 – 75)	1.4 (0.77)	0.1:12.2
PM ₁₀ (63 – 101 µg/m ³)	Q3 (50 – 75)	2.2 (0.45)	0.3:18.1

—◆— ozone —■— pm —●— RH



Health co-benefits of
policies
to tackle climate change

published
November 2010

The InterAcademy Medical Panel

- is the global network of the world's medical academies and medical sections of academies of science and engineering
- has 69 member academies
- is committed to improving health world-wide
- IAMP activities focus on institutional collaboration to strengthen the role of all academies
 - to alleviate the health burdens of the world's poorest people;
 - to build scientific capacity for health;
 - to provide independent scientific advice on promoting health science and health care policy to national governments and global organizations.

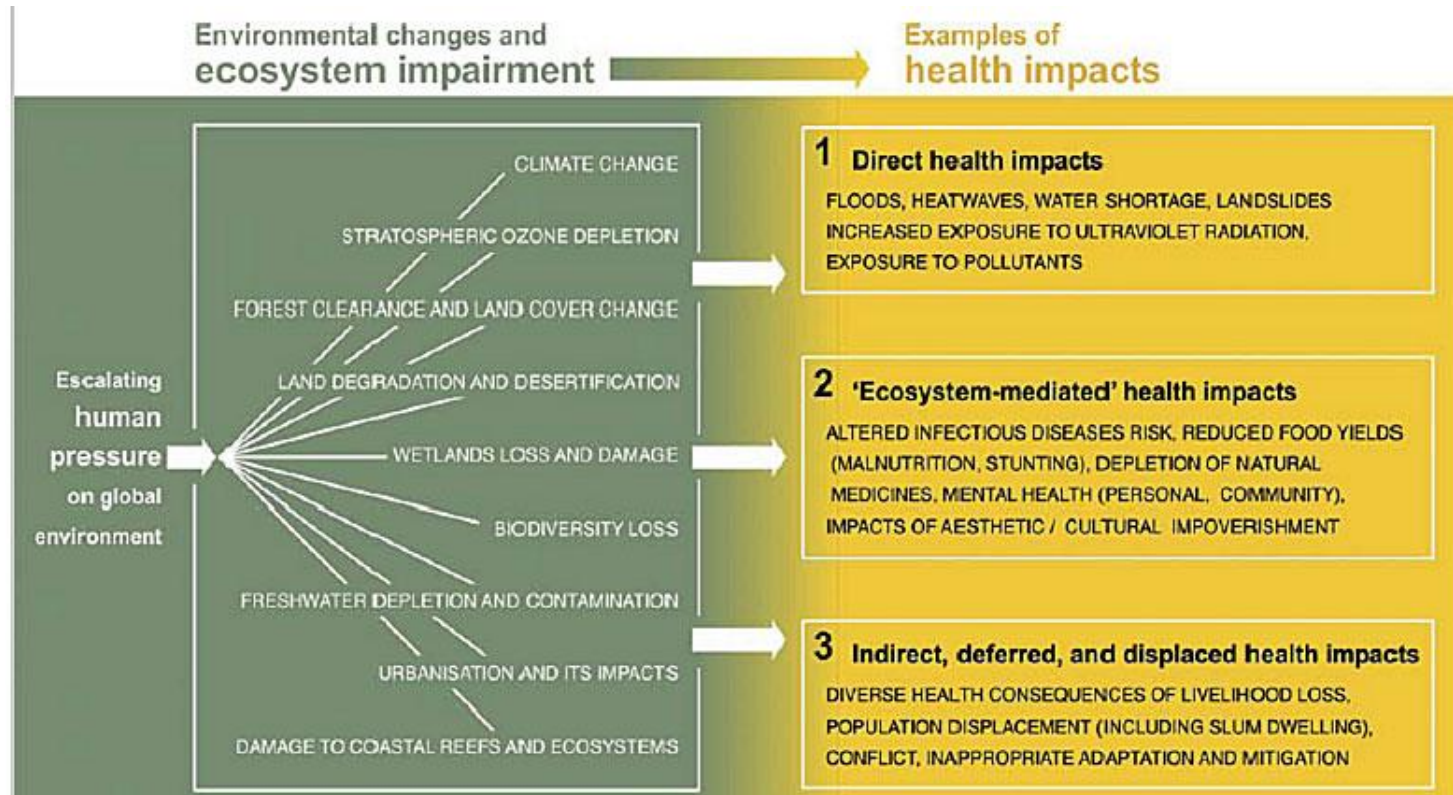
Why this statement?

- New scientific evidence published by The Task Force on Climate Change Mitigation and Public Health a series of articles in the Lancet in November 2009
- Statement by UK Academy of Medical Sciences in 2010
- Special role of IAMP to bundle activities by national activities and lift them up on an international level

People and academies involved

- International expert group:
 - Professor Detlev Ganten – Germany (Chair)
 - Professor Sir Andrew Haines – UK
 - Professor Roseanne Diab – South Africa
 - Professor Thomas Mettenleiter – Germany
 - Professor Tony McMichael – Australia
 - Professor Jonathan Patz – U.S.
 - Professor Paulo Saldiva – Brazil
 - Professor Stig Wall - Sweden
- statement signed by
 - 45 member academies
 - from 39 countries

Climate change impacts on health



Source: <http://www.who.int/globalchange/environment/en/>

Main messages

1. Climate change is a threat to human health.
2. That threat can be tackled by mitigating (abating) climate change and, meanwhile, by adapting to its unavoidable impacts.
3. Mitigation actions can themselves improve the health of the population taking those actions.
4. Those (bonus) co-benefits to health show that policies to mitigate climate change are not necessarily a social or economic cost.

Example 1: household energy

- Health benefits of the Indian stove programme

	Deaths from ALRI	Deaths from COPD	Deaths from IHD
Avoided in 2020 (%)	30.2%	28.2%	5.8%
Total avoided 2010-20	240,000	1.27 million	560,000

ALRI=acute lower respiratory infections. COPD=chronic obstructive pulmonary disease.
IHD=ischaemic heart disease.

Source: Wilkinson et al. (2009)

Example 2: urban transport

- Health effects in 1 year (change in DALYs)

	CO ₂ -reduction measure		
	More active travel and less use of motor vehicles	Increase use of low-emission motor vehicles	Combination of active travel and low-emission motor vehicles
DALYs in London	-7 332	-160	-7 439
DALYs in Delhi	-12 516	-1 696	-12 995

DALY= disability-adjusted life years

Source: Woodcock et al. (2009)

General recommendations

- local and global improvement of health should be key motivation for mitigating climate change
- give health co-benefits greater prominence in international negotiations
- health ministers should promote mitigation strategies that result in health co-benefits
- encourage more international collaboration between policymakers, scientists, health professionals and industry
- health community most provide leadership by reducing emissions from health systems

Supporting material

- Comment in the Lancet from 26 Nov 2010
- Lancet Series (2009) on Health and Climate Change <http://www.thelancet.com/series/health-and-climate-change>