Climate changes: adaptation and mitigation from the perspective of the human fabric

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Skin color

- Melanin and eumelanin (UV absorption)
- Loosing hair induced the proliferation of sweat glands and increased level of melanina and eumelanin
- About 1,2 million years ago occurred a mutation of the MC1R (melanocortin 1 receptor), an advantage to face high levels of solar radiation, becoming the most common variant in Africa
- Not only skin cancer. High levels of UV reduce the levels of folate, necessary to cell division
- On the other hand, UV is necessary to transform dihydrocholesterol into vitamin D
- Thus, when humans began to migrate to areas with less sunlight (circa 60.000 years ago), a single nucleotide change in the SLC24A5 gene (promoted less intense melanina production) allowed for adapation to lower light intensity. Two variants, “yellow” and “white”.
- The concept of race is false. It is only a matter of natural selection.

Bundesarchiv, Bild 108-212-20
Foto: o.Ang. | 1911/1915 ca.

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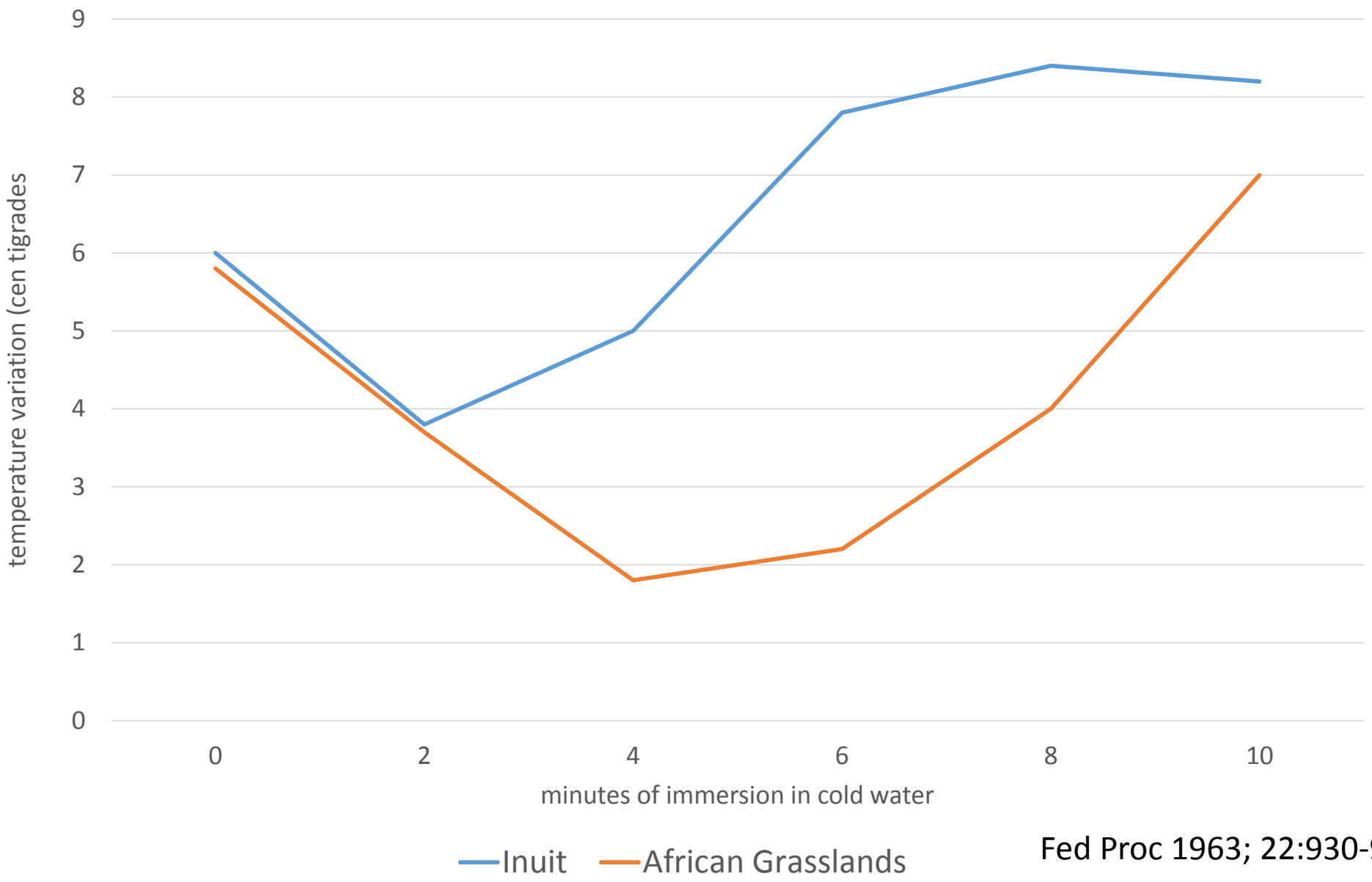
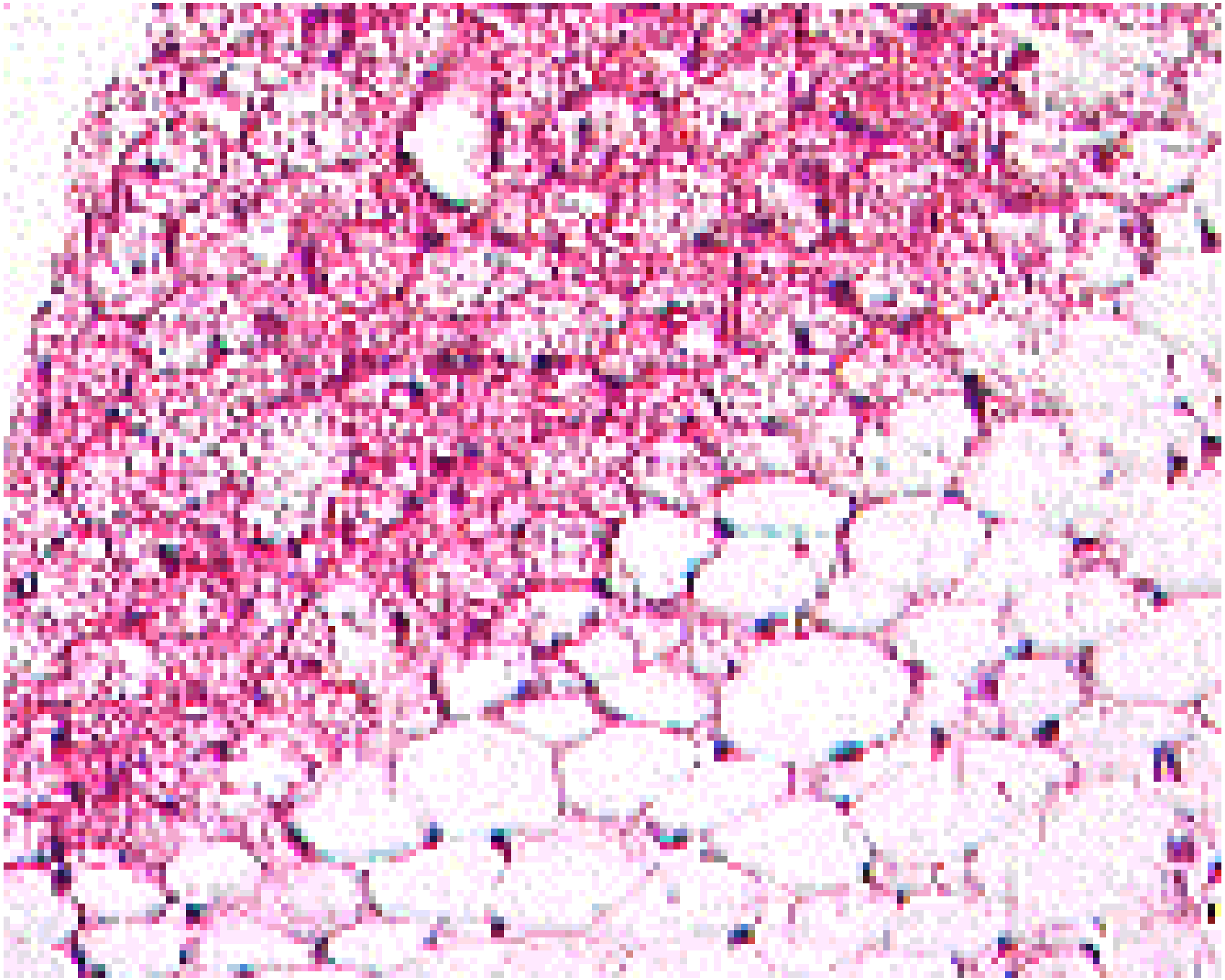
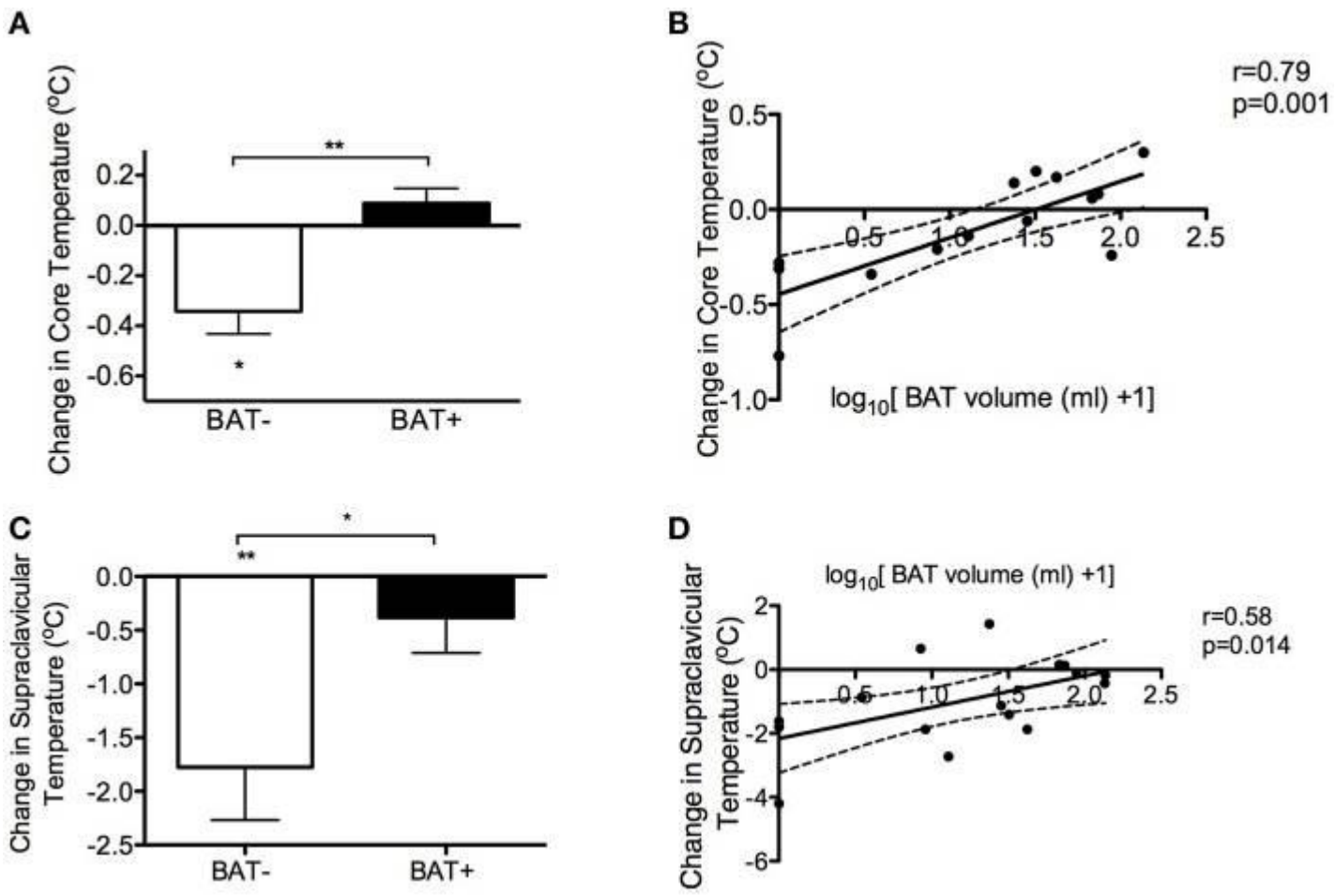


Fed Proc 1963; 22:930-932





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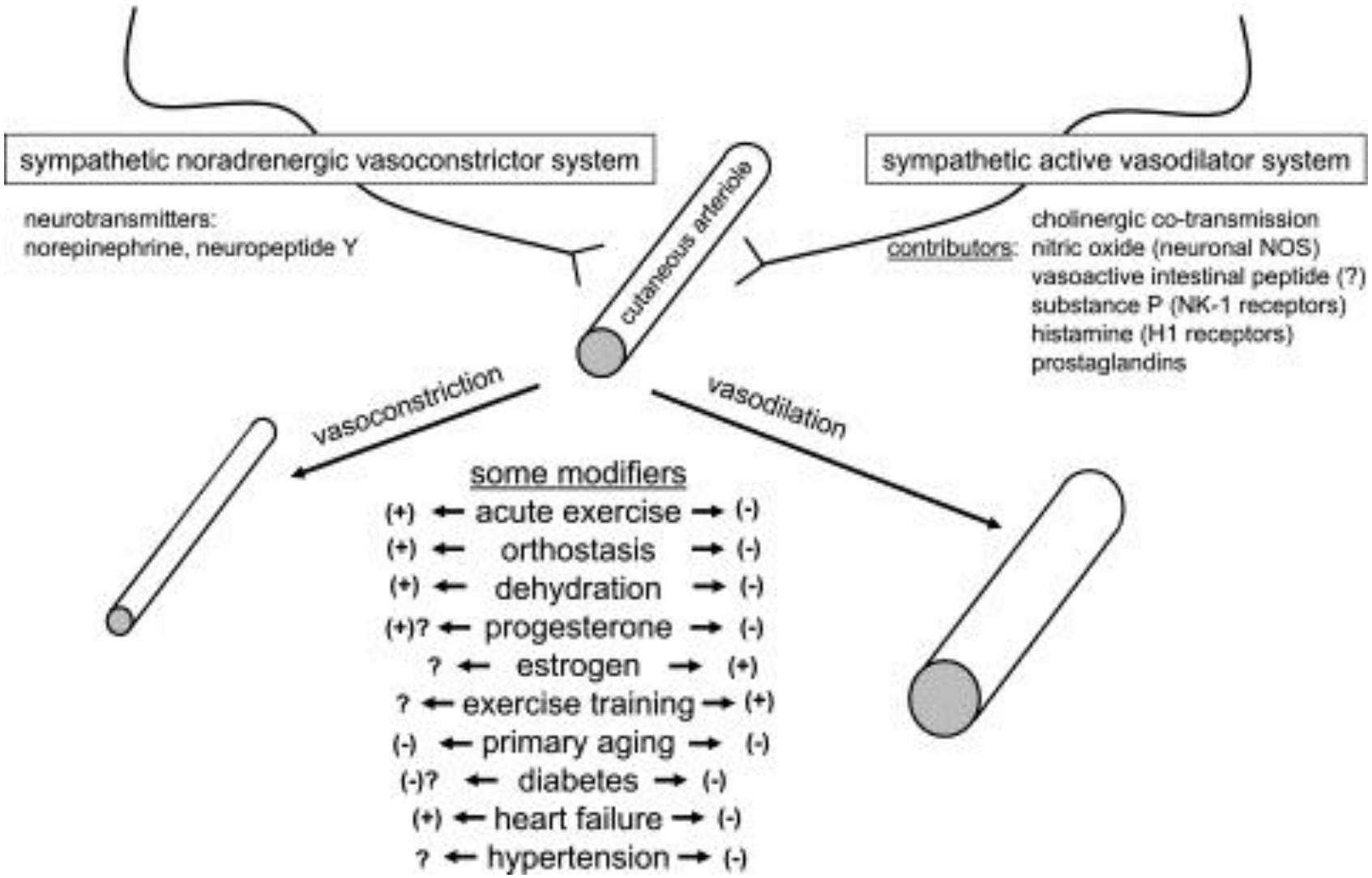

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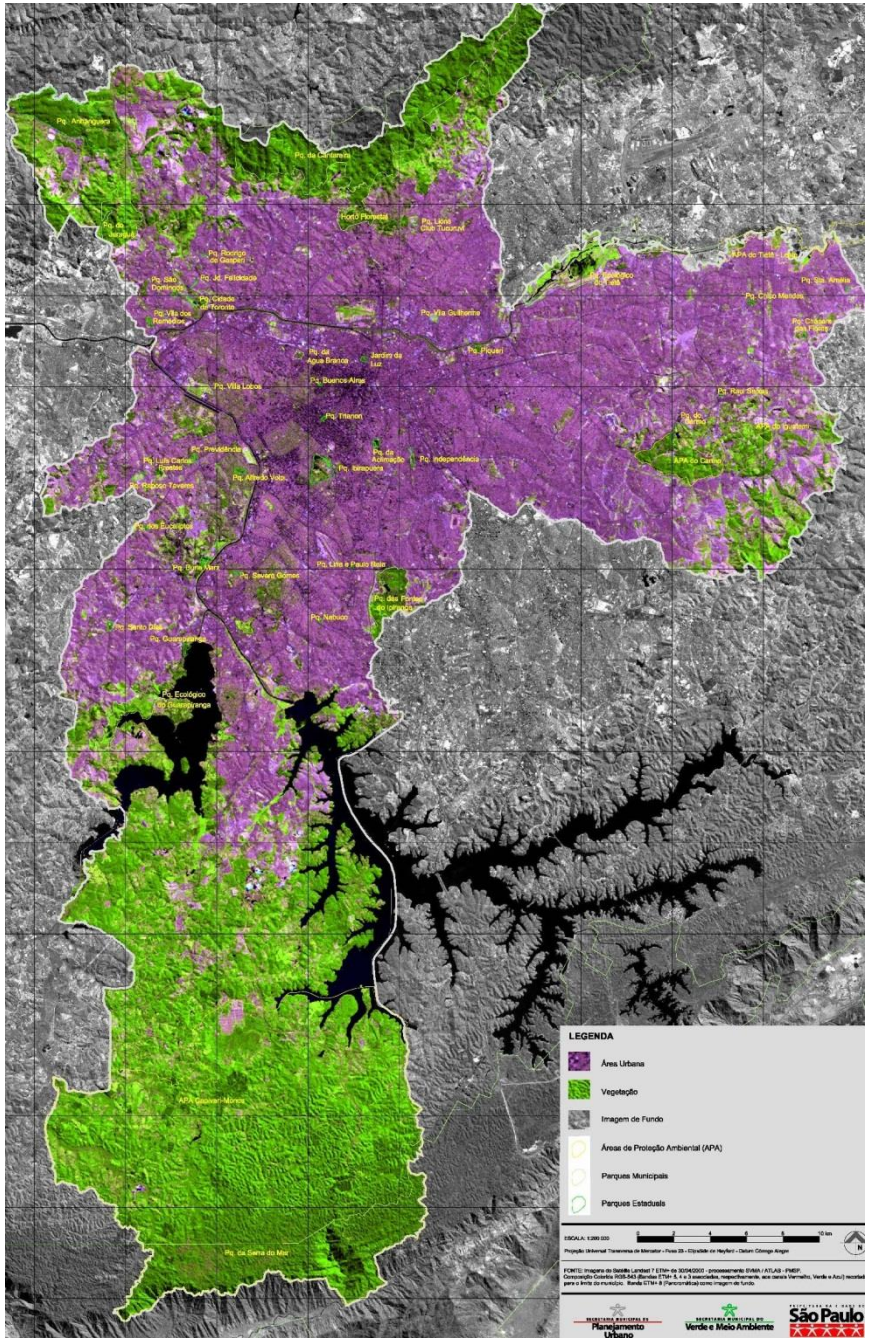
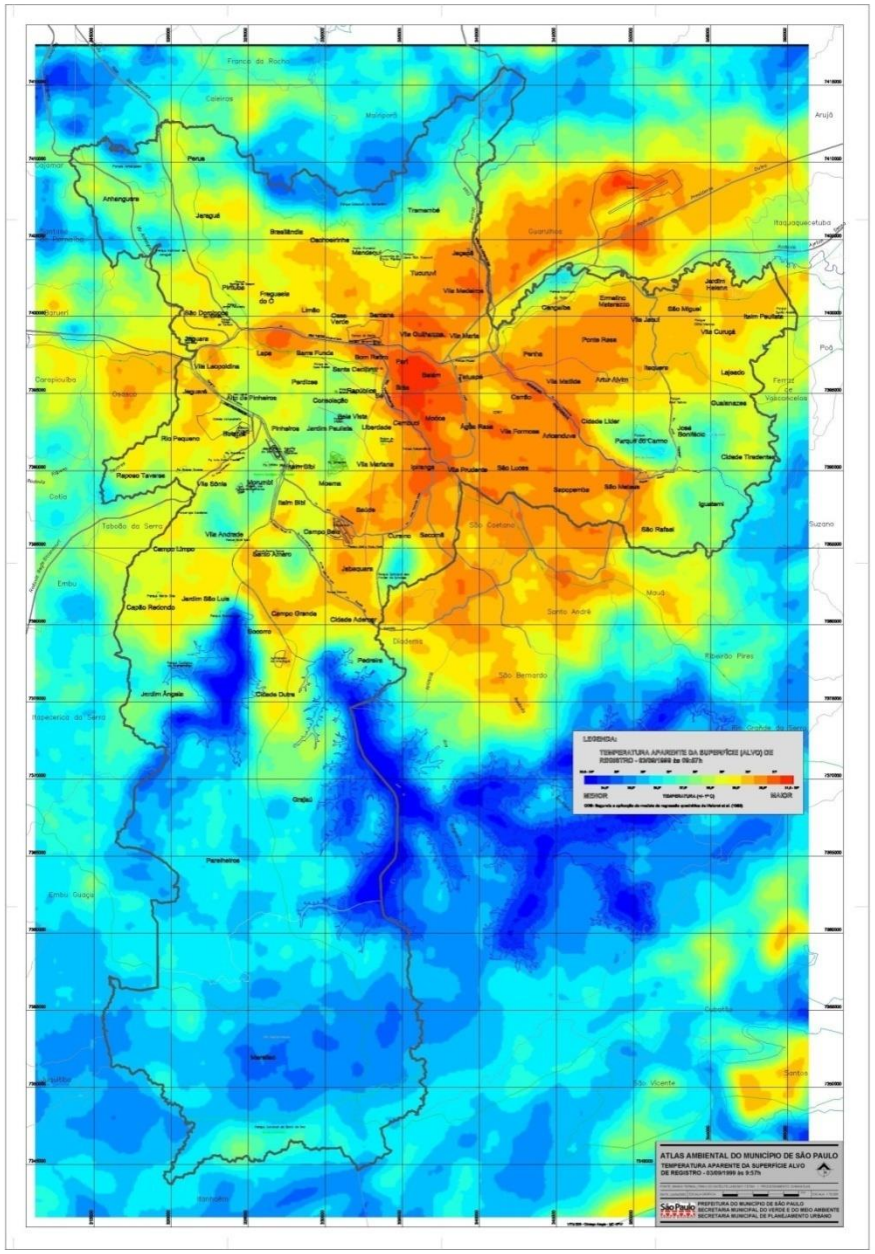
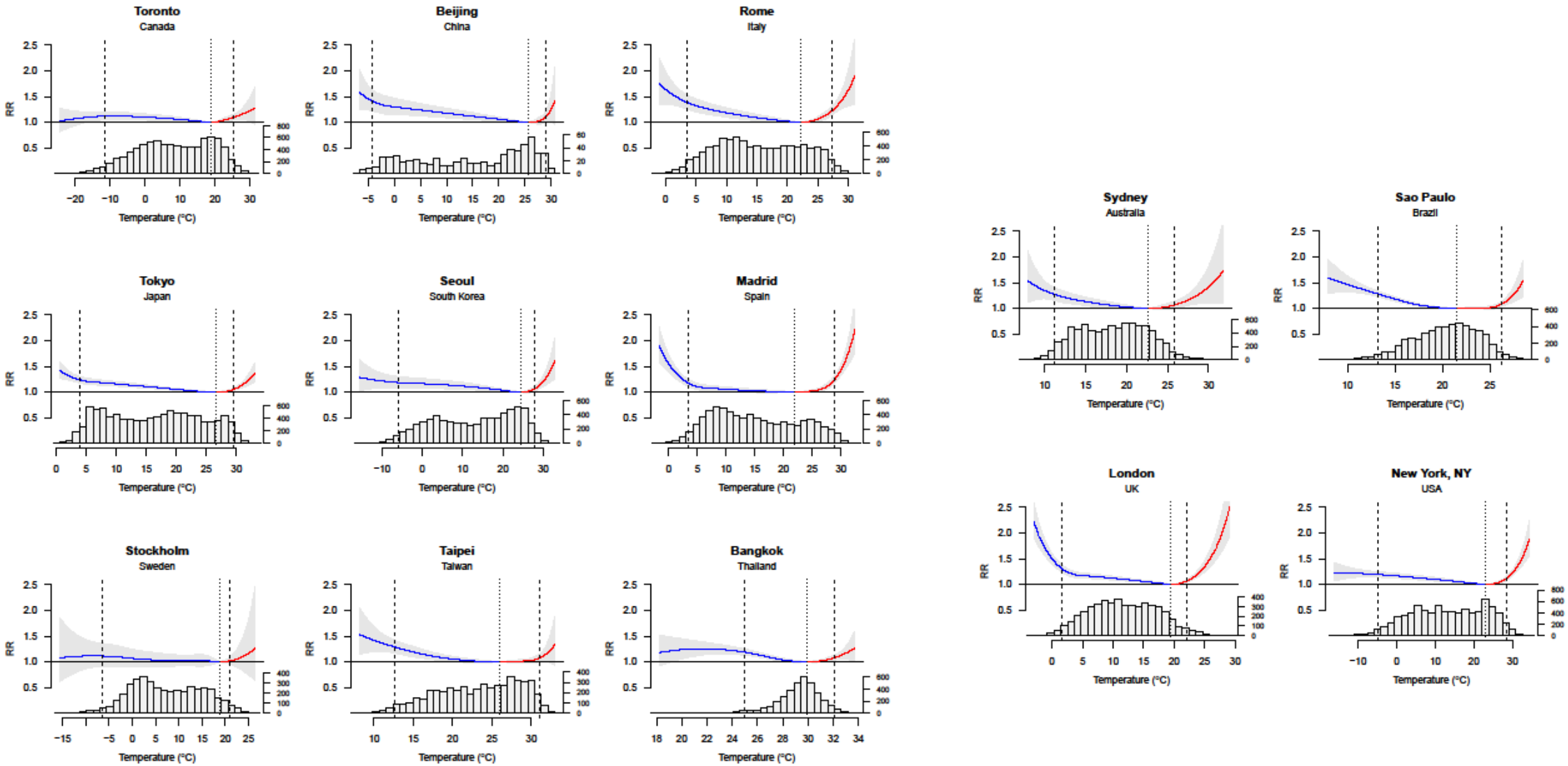

LEGENDA
Área Urbana
Vegetação
Imagem de Fundo
Áreas de Proteção Ambiental (APA)
Parques Municipais
Parques Estaduais
ESCALA: 1:200 000
0 2 4 6 8 10 km
N
Projeção Universal Transversa de Mercator - Fuso 23 - Elipsóide de Hayford - Datum Córrego Alegre
FONTE: Imagens do Satélite Landsat 7 ETM+ de 30/04/2000 - processamento SVMA / ATLAS - PMSP.
Composição Colorida R3B-543 (Bandas ETM+ 5, 4 e 3 associadas, respectivamente, aos canais Vermelho, Verde e Azul) recortada para o limite do município. Banda ETM+ 8 (Pancromática) como imagem de fundo.
SECRETARIA MUNICIPAL DO Planejamento Urbano
SECRETARIA MUNICIPAL DO Verde e Meio Ambiente
São Paulo


LEGENDA:
TEMPERATURA APARENTE DA SUPERFÍCIE (ALVO) DE REGISTRO - 03/08/1999 às 09:57h
MENOR
MAIOR
ATLAS AMBIENTAL DO MUNICÍPIO DE SÃO PAULO
TEMPERATURA APARENTE DA SUPERFÍCIE ALVO DE REGISTRO - 03/08/1999 às 9:57h
São Paulo
PREFEITURA DO MUNICÍPIO DE SÃO PAULO
SECRETARIA MUNICIPAL DO VERDE E DO MEIO AMBIENTE
SECRETARIA MUNICIPAL DE PLANEJAMENTO URBANO



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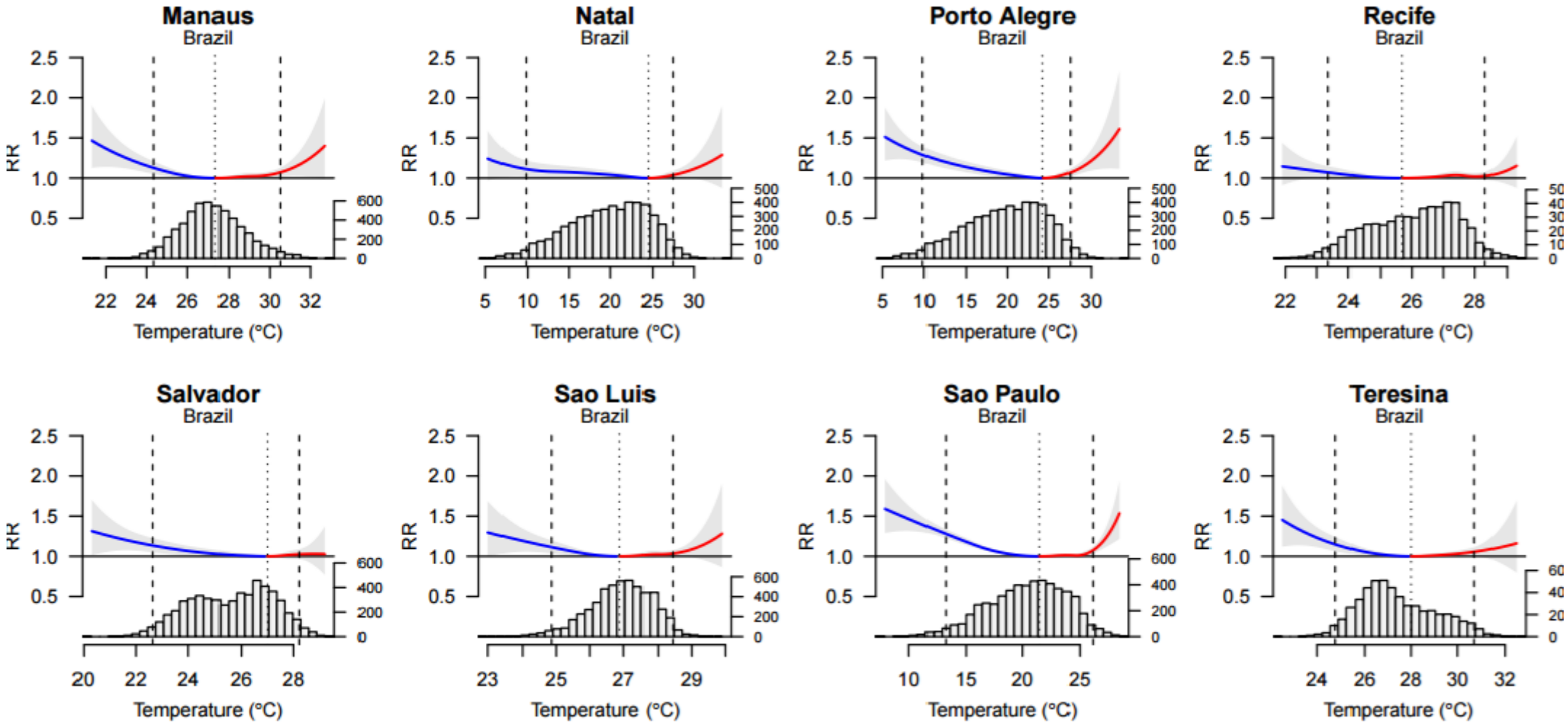
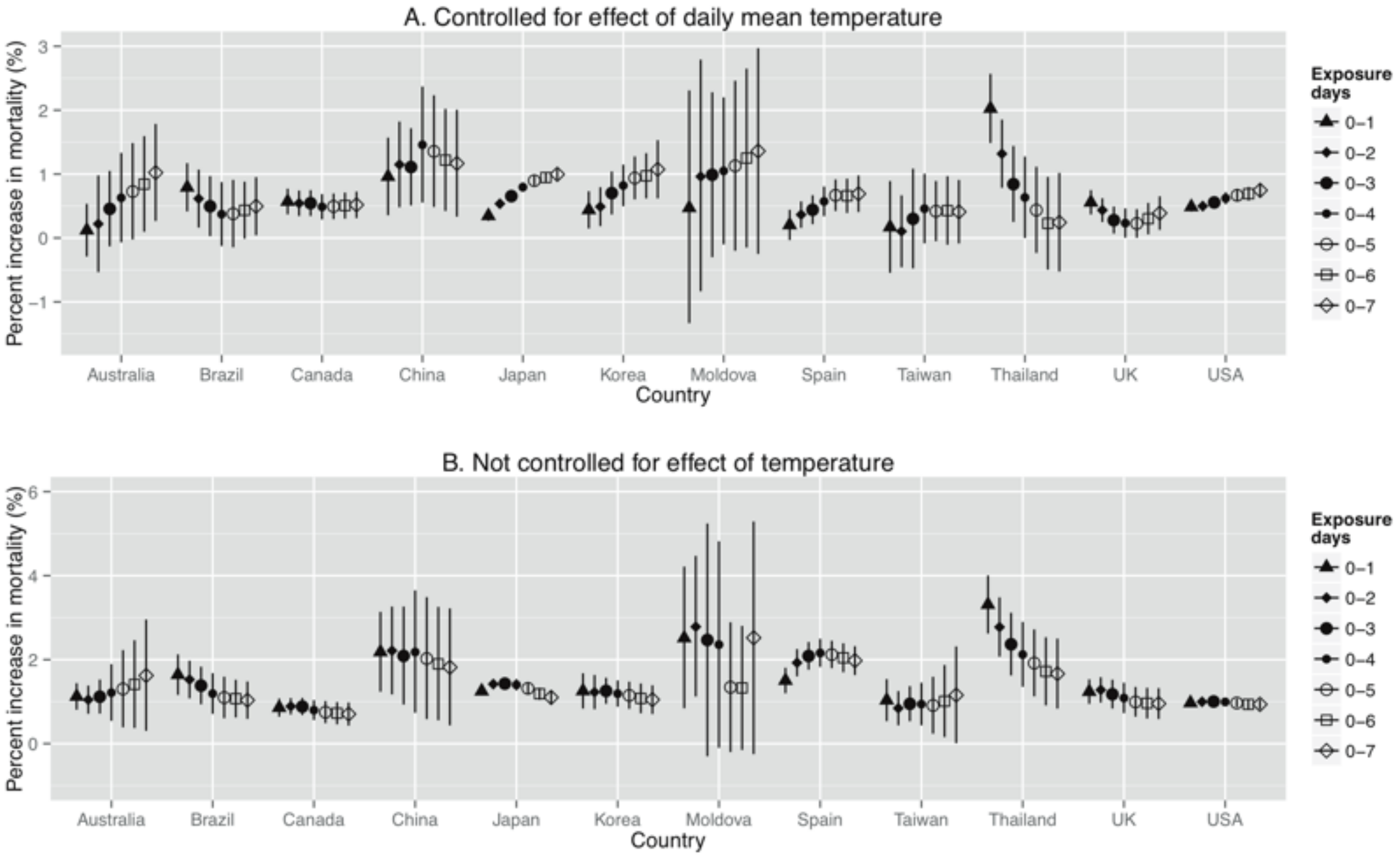

Manaus
Brazil
Natal
Brazil
Porto Alegre
Brazil
Recife
Brazil
Salvador
Brazil
Sao Luis
Brazil
Sao Paulo
Brazil
Teresina
Brazil
RR
Temperature (°C)



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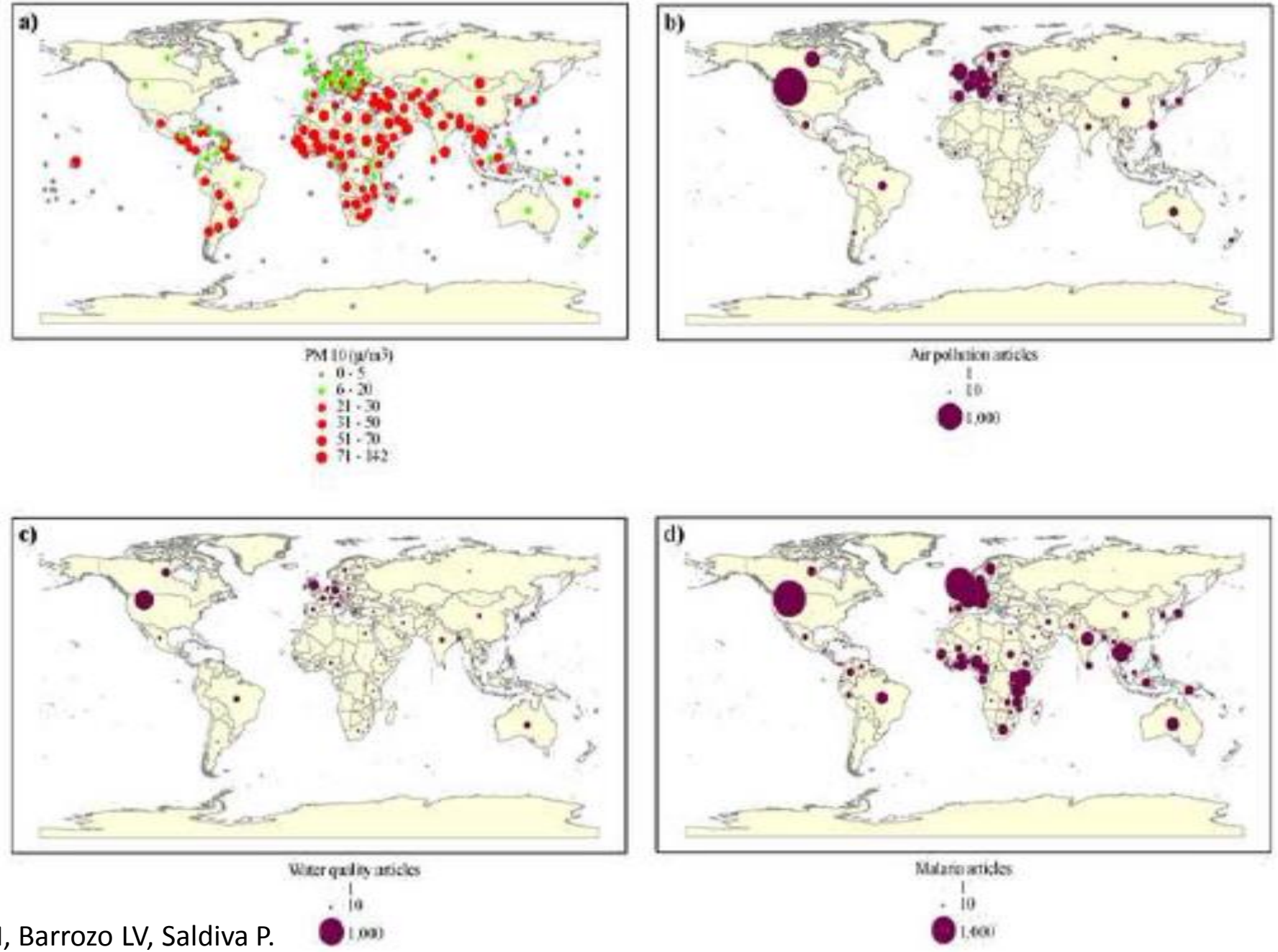

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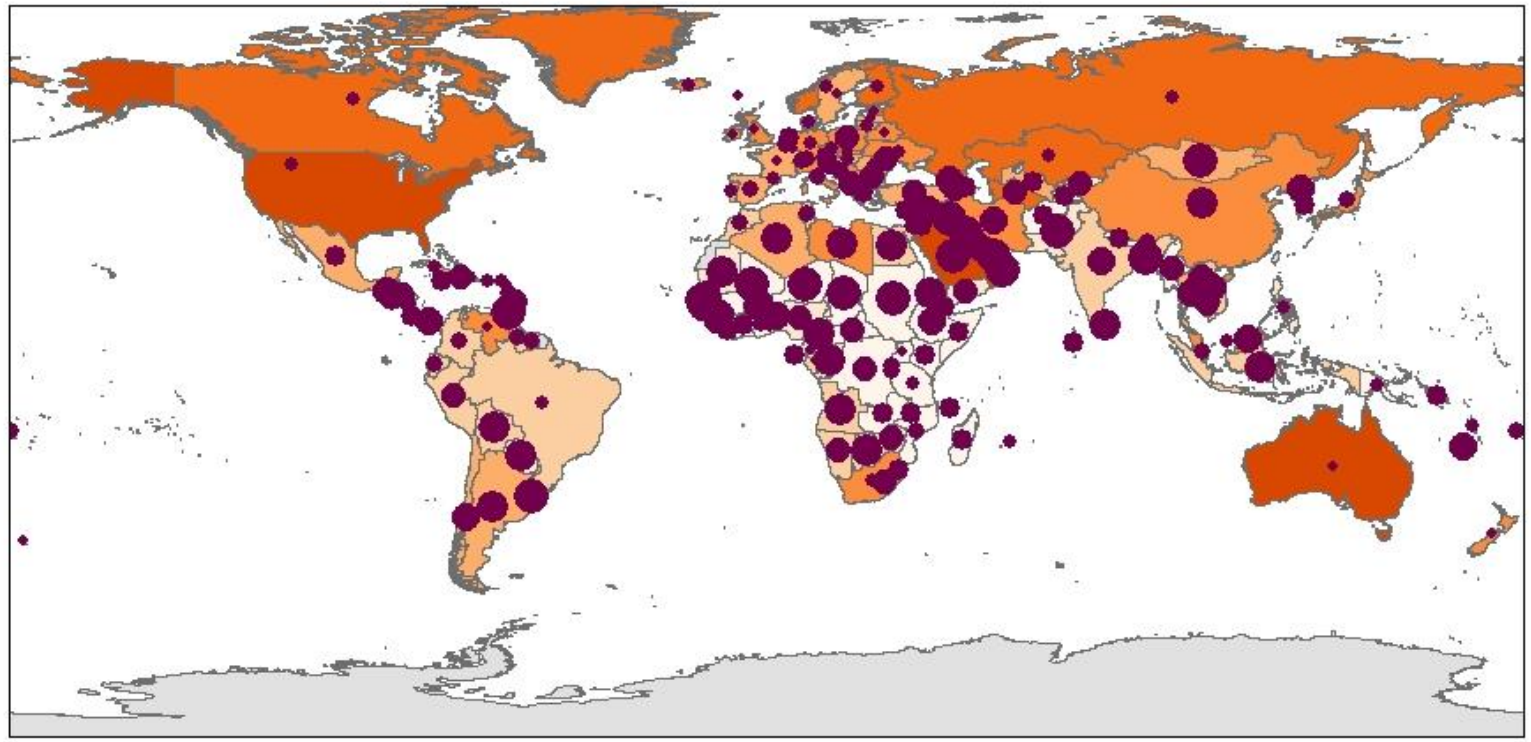


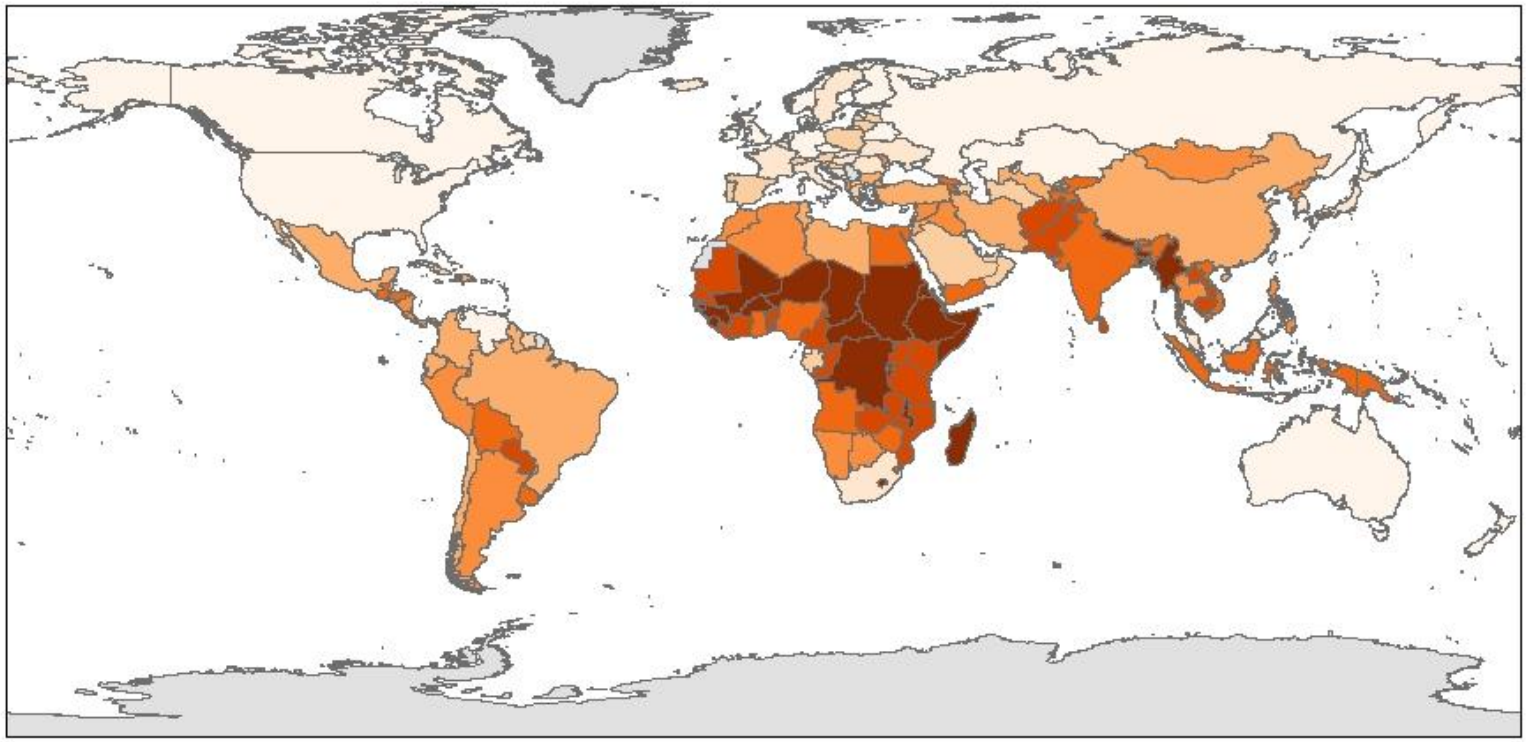
CO2 emissions
(metric tons per capita)

- 0.00 - 1.80
- 1.81 - 3.07
- 3.08 - 5.65
- 5.66 - 11.70
- 11.71 - 28.93
- 28.94 - 77.50
- 77.51 - 180.36
- 180.37 - 4211.75
- no data

PM10
(micrograms per cubic meter)

- 5.86 - 13.11
- 13.12 - 18.68
- 18.69 - 24.87
- 24.88 - 31.01
- 31.02 - 42.48
- 42.49 - 55.62
- 55.63 - 77.85
- 77.86 - 136.75
- no data

2010 data , source: the World Bank



Energetic Inefficiency Index
(PM10/CO2)

- 0.00 - 1.80
- 1.81 - 3.07
- 3.08 - 5.65
- 5.66 - 11.70
- 11.71 - 28.93
- 28.94 - 77.50
- 77.51 - 180.36
- 180.37 - 4211.75
- no data

2010 data , source: the World Bank