

URBANISATION ET EMERGENCE DE MALADIES TRANSMISSIBLES

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LES NOUVELLES MENACES DES MALADIES INFECIEUSES ÉMERGENTES;
Paris 24 mai 2012

OUR PLANET

- The world's population is growing

- from 6 billion in 2005 to a projected 9 billion in 2050

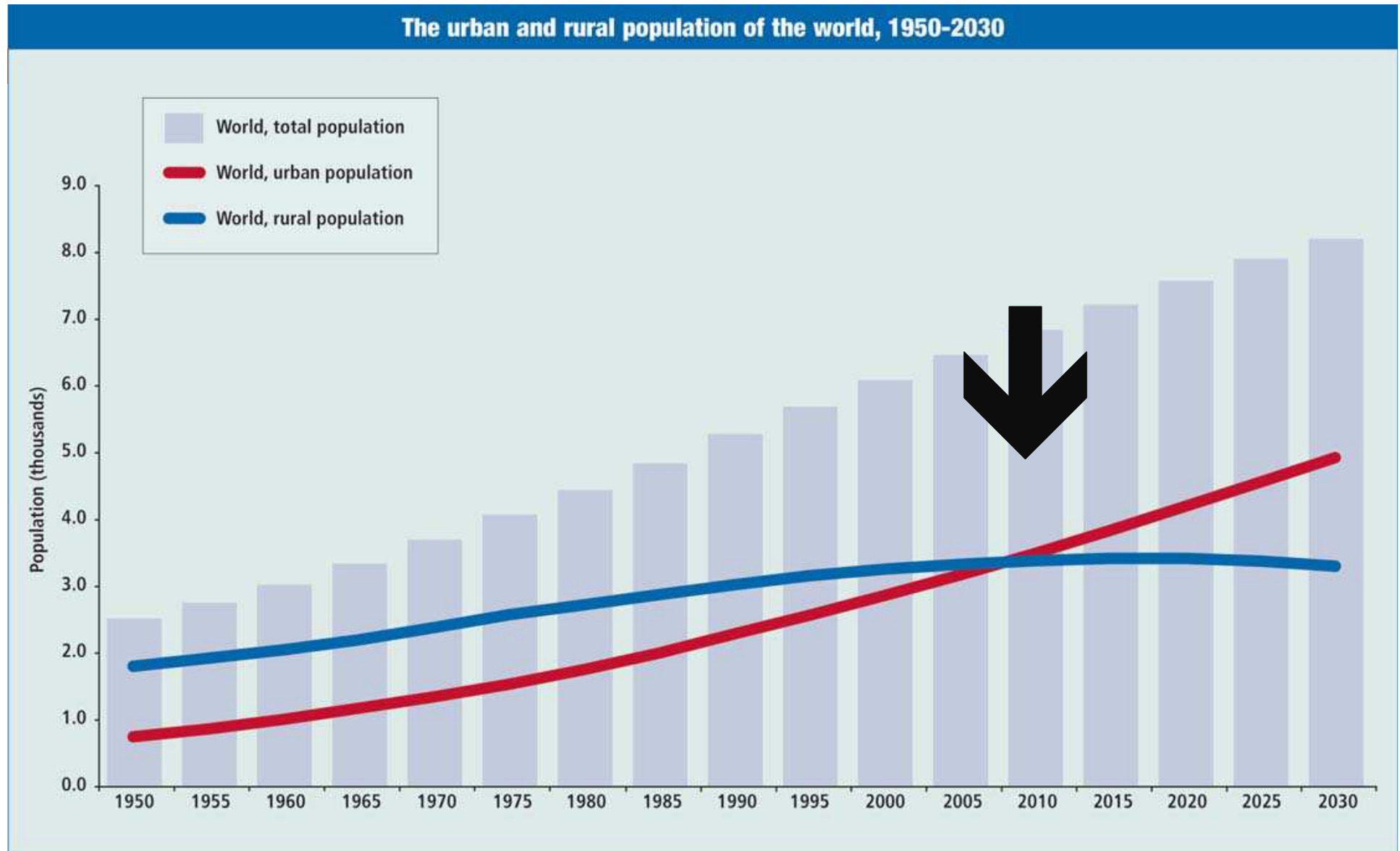
- ... and urbanising

- 2007 : transition year !

- global **urban** population : 3,303,992,253 people (approx)

- exceeded **rural** population : 3,303,866,404 people

World Urbanization Prospects : 2007, the URBAN YEAR !

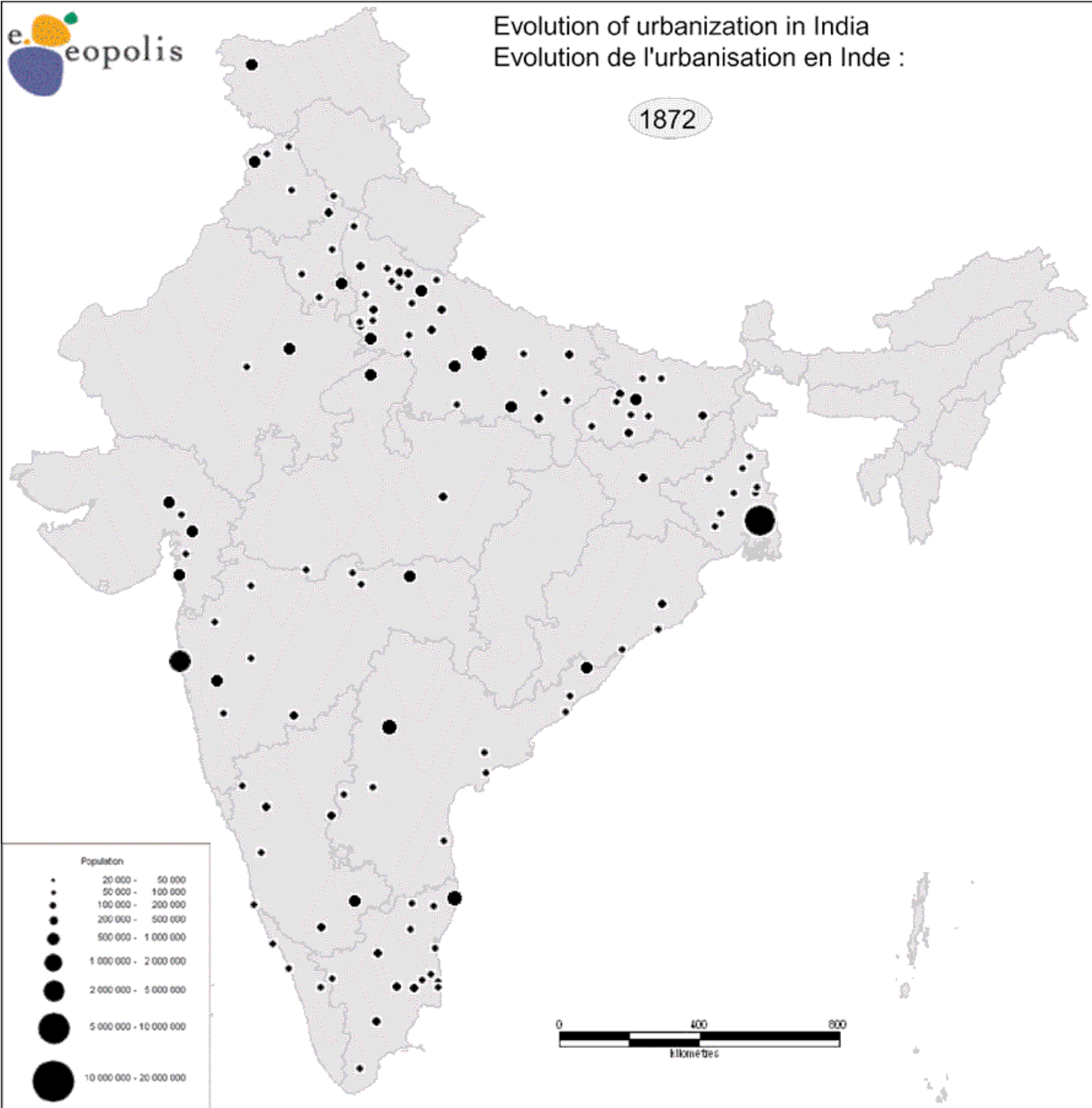


In Europe ...

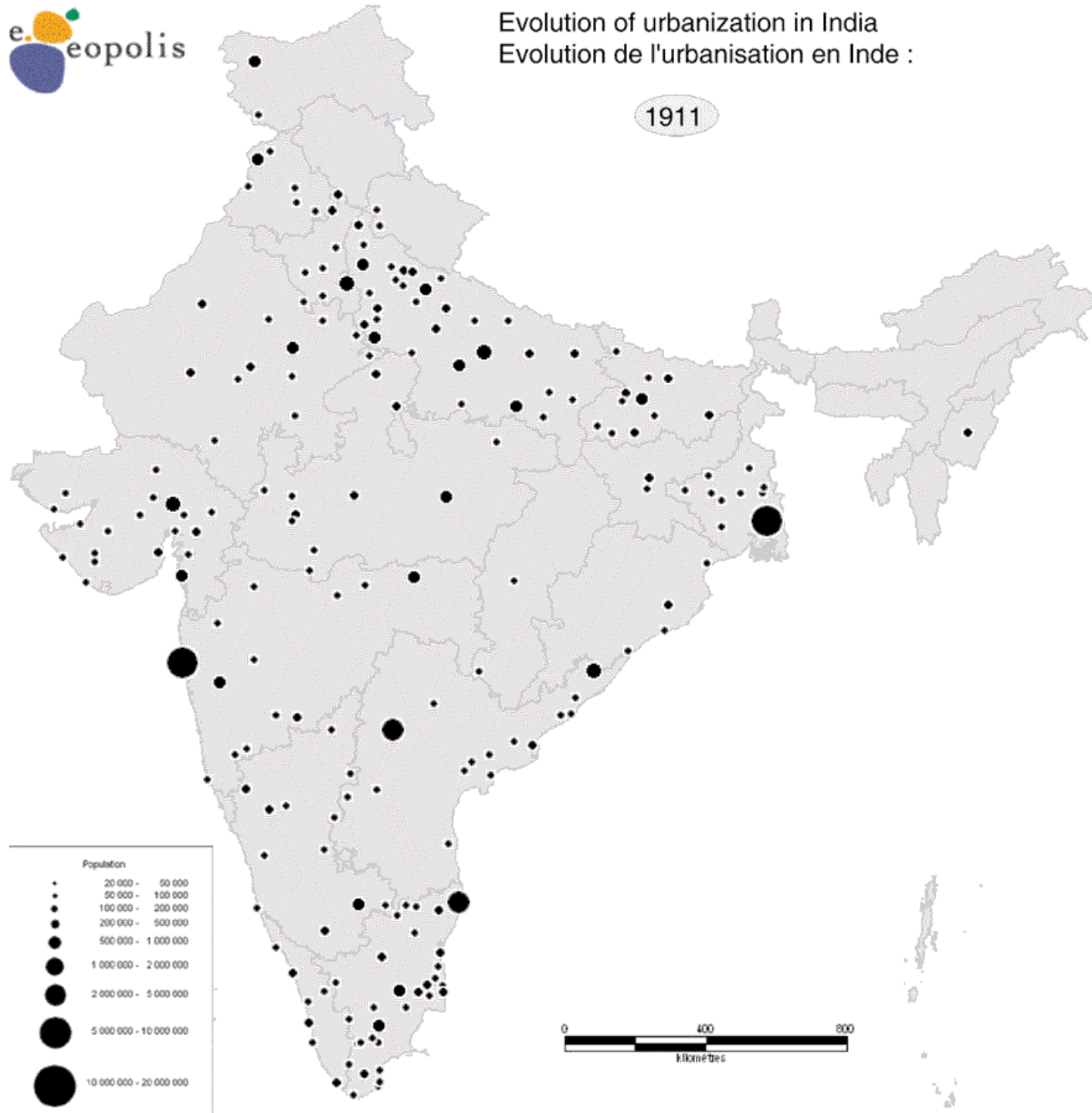


Evolution of urbanization in India
Evolution de l'urbanisation en Inde :

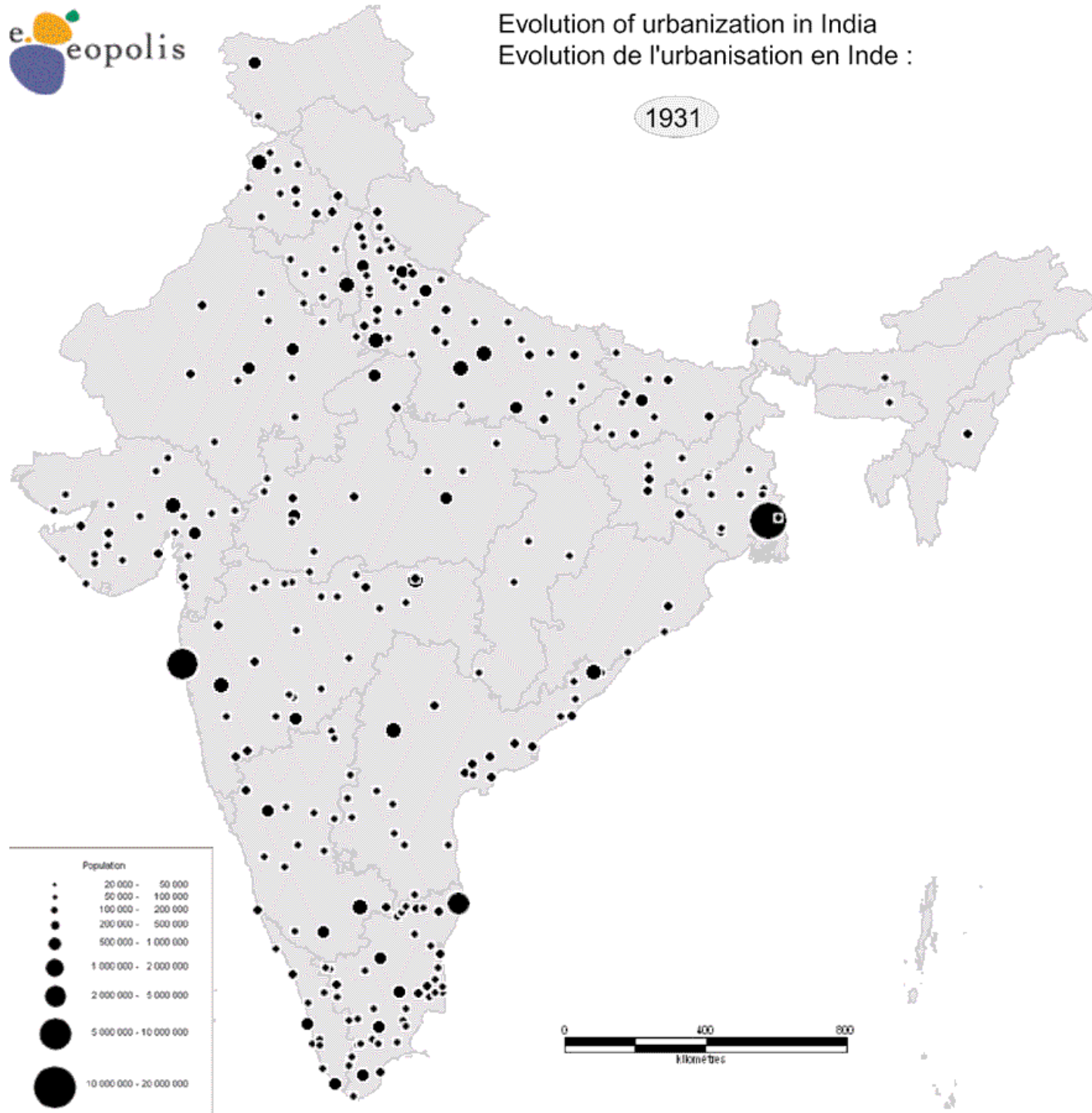
1872



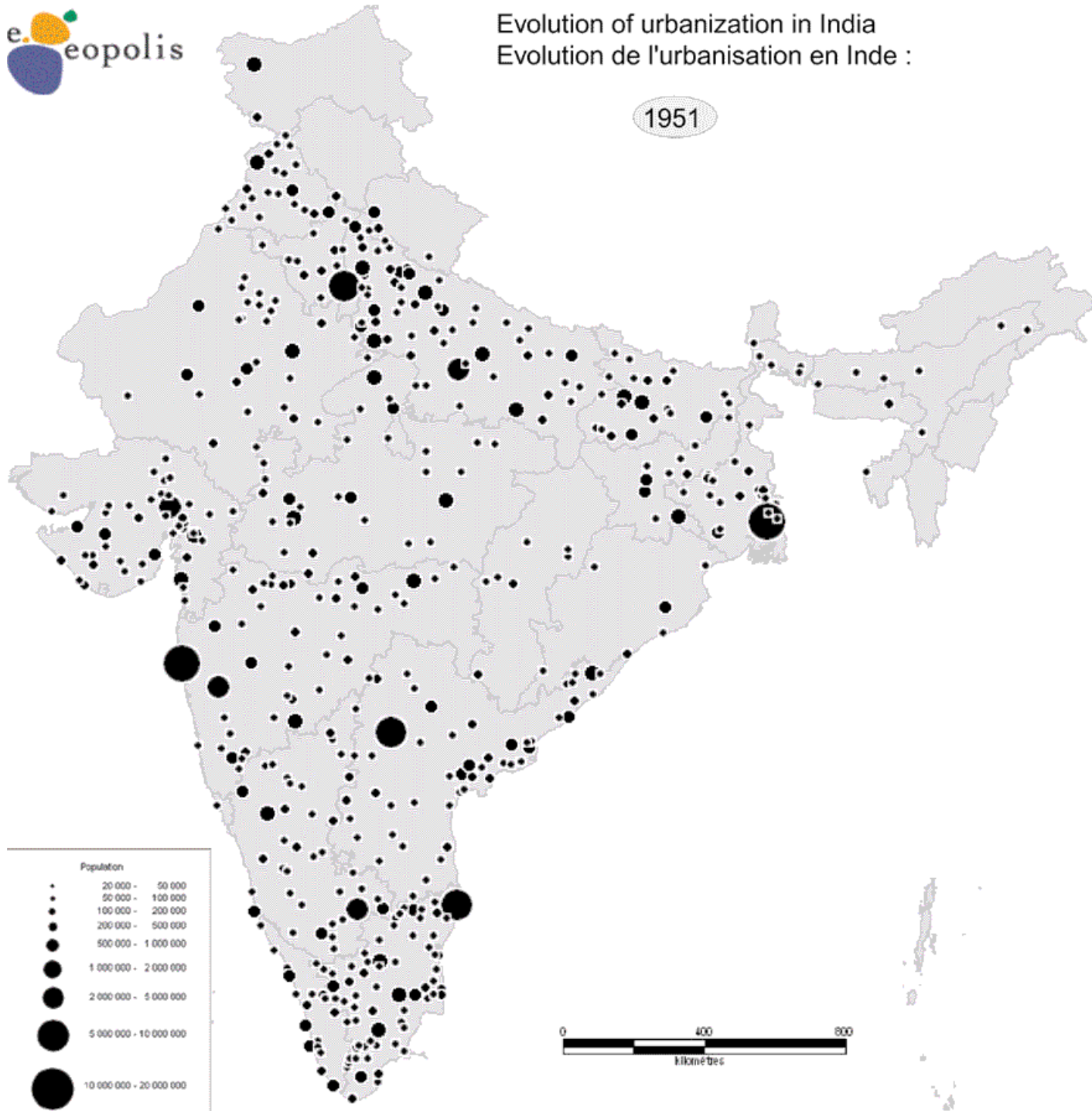
1911



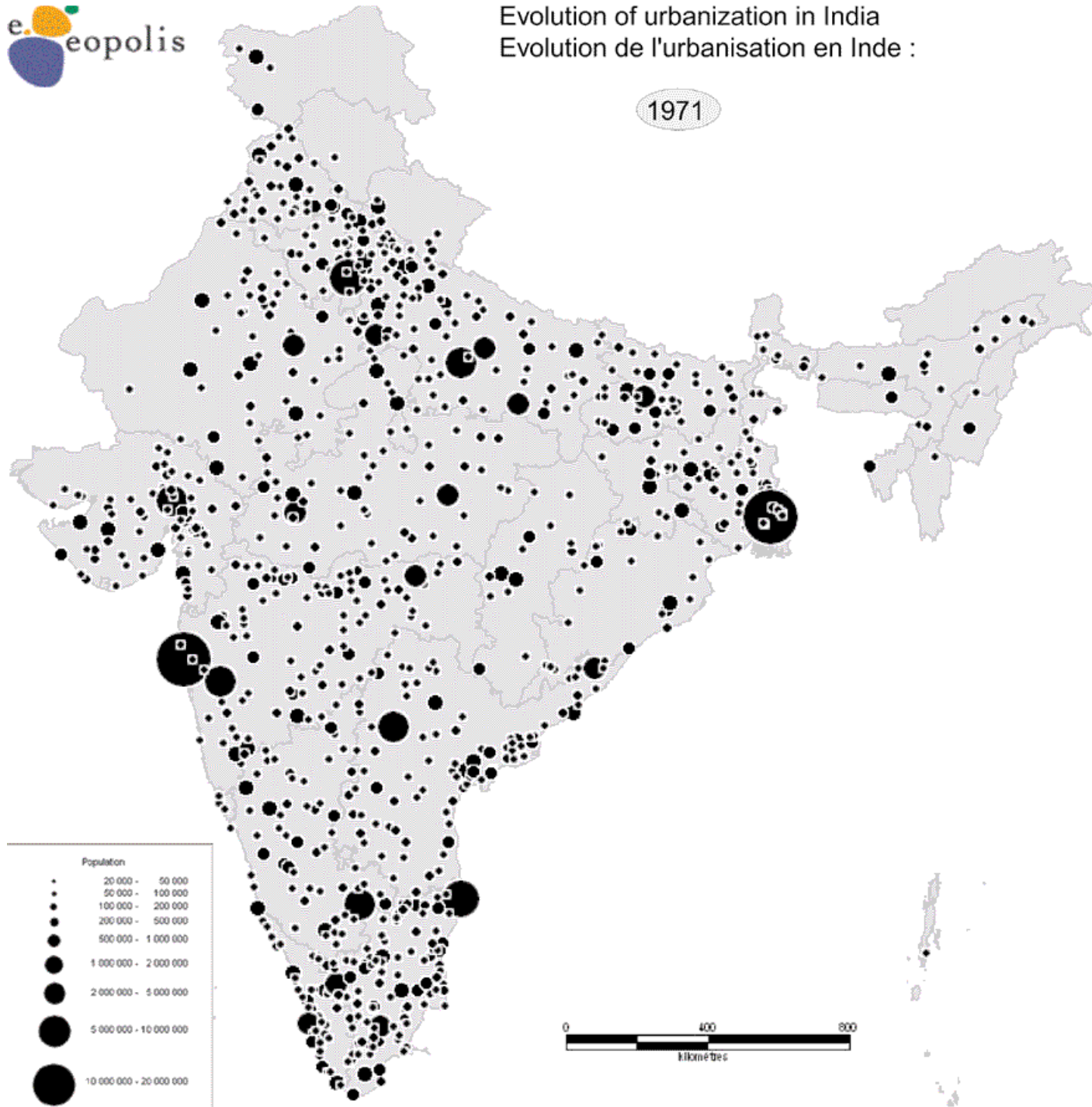
1931



1951



1971

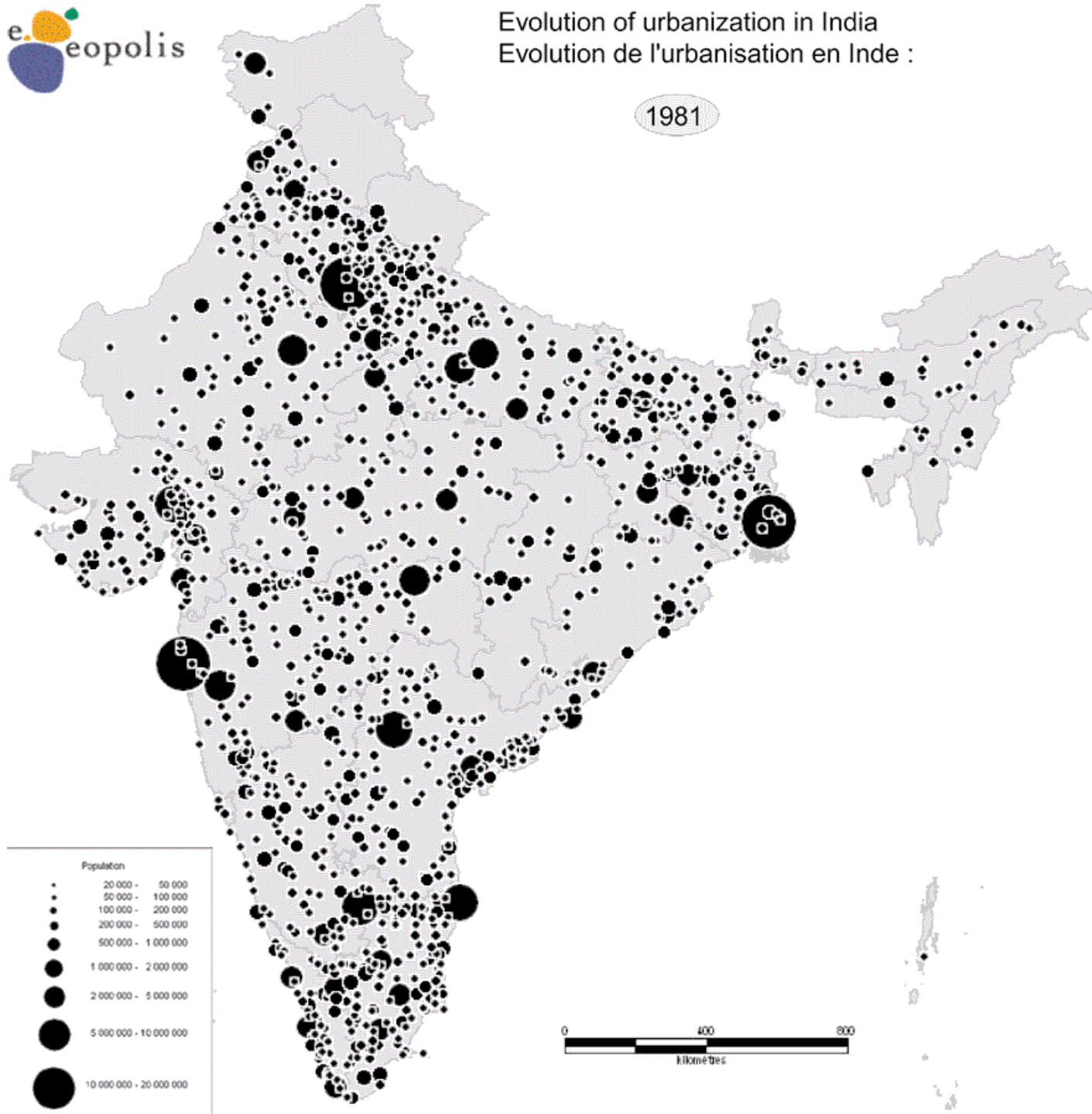


Population

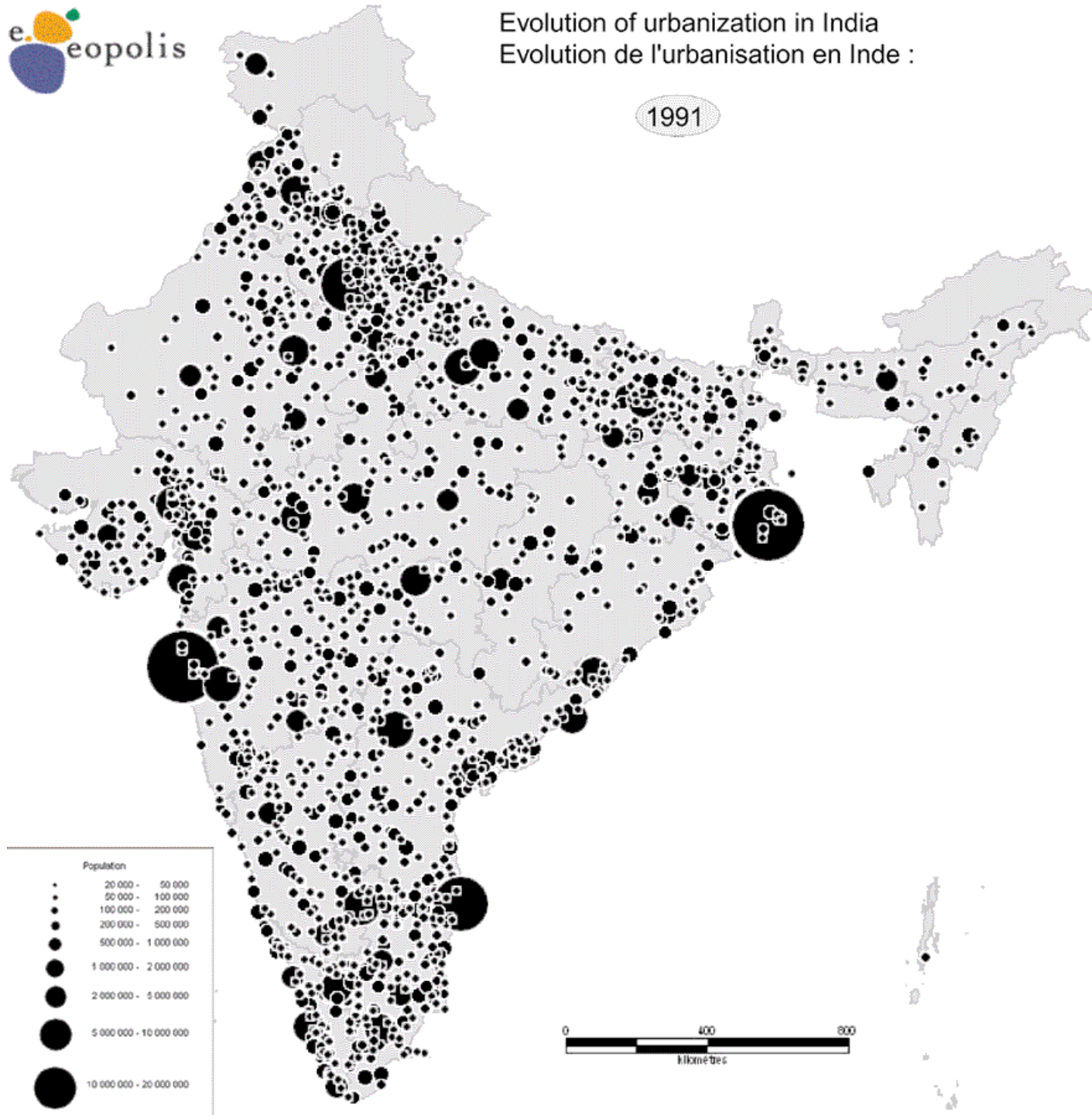
- 20 000 - 50 000
- 50 000 - 100 000
- 100 000 - 200 000
- 200 000 - 500 000
- 500 000 - 1 000 000
- 1 000 000 - 2 000 000
- 2 000 000 - 5 000 000
- 5 000 000 - 10 000 000
- 10 000 000 - 20 000 000

0 400 800
kilomètres

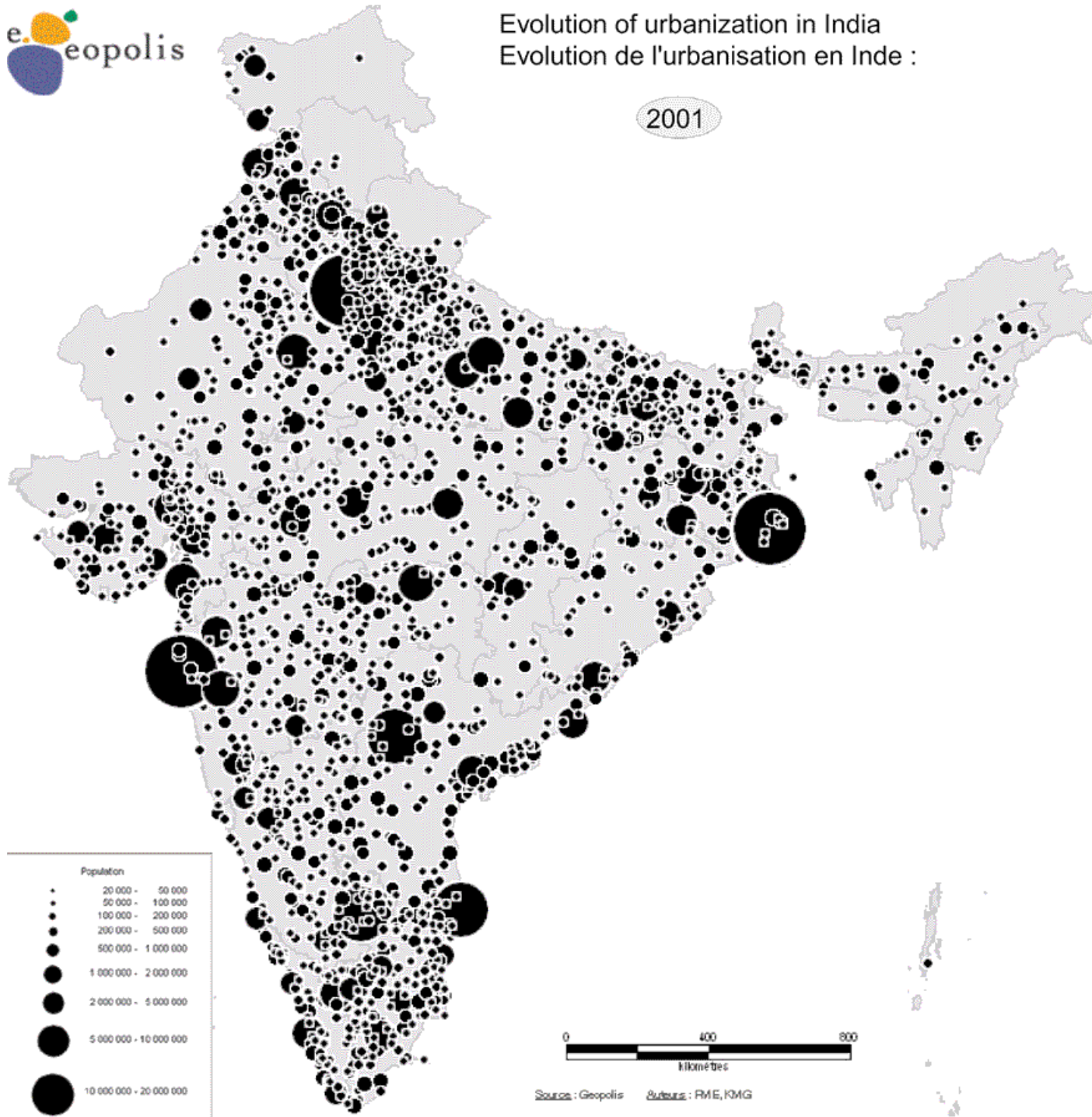
1981



1991



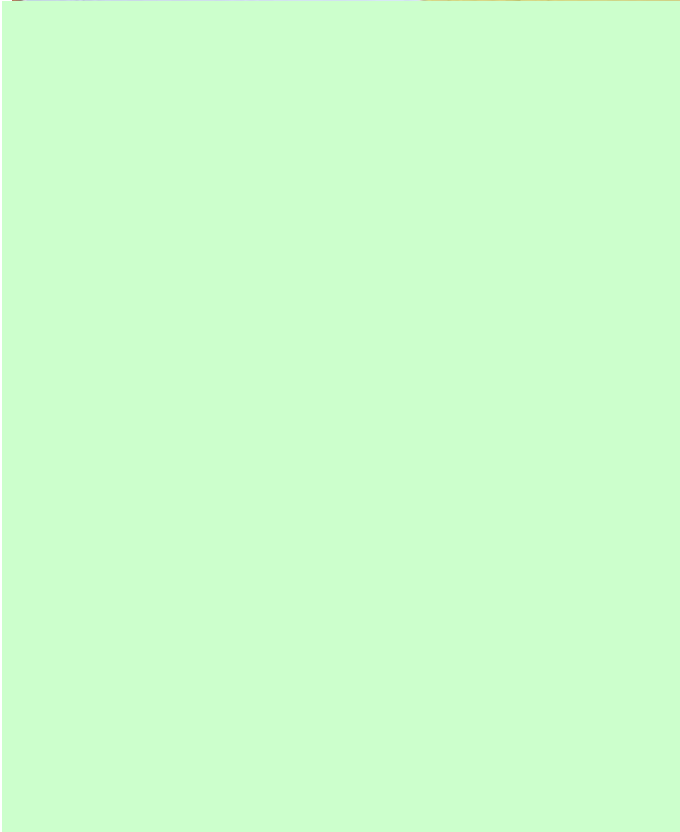
2001



1960



Urban Growth in West Africa



1960

Urban Growth in West Africa

1990



Nombre d'habitants des villes

• 100 000 à 200 000

• 200 000 à 500 000

• 500 000 à 1 million

• 1 à 2 millions



2 à 5 millions



5 à 10 millions



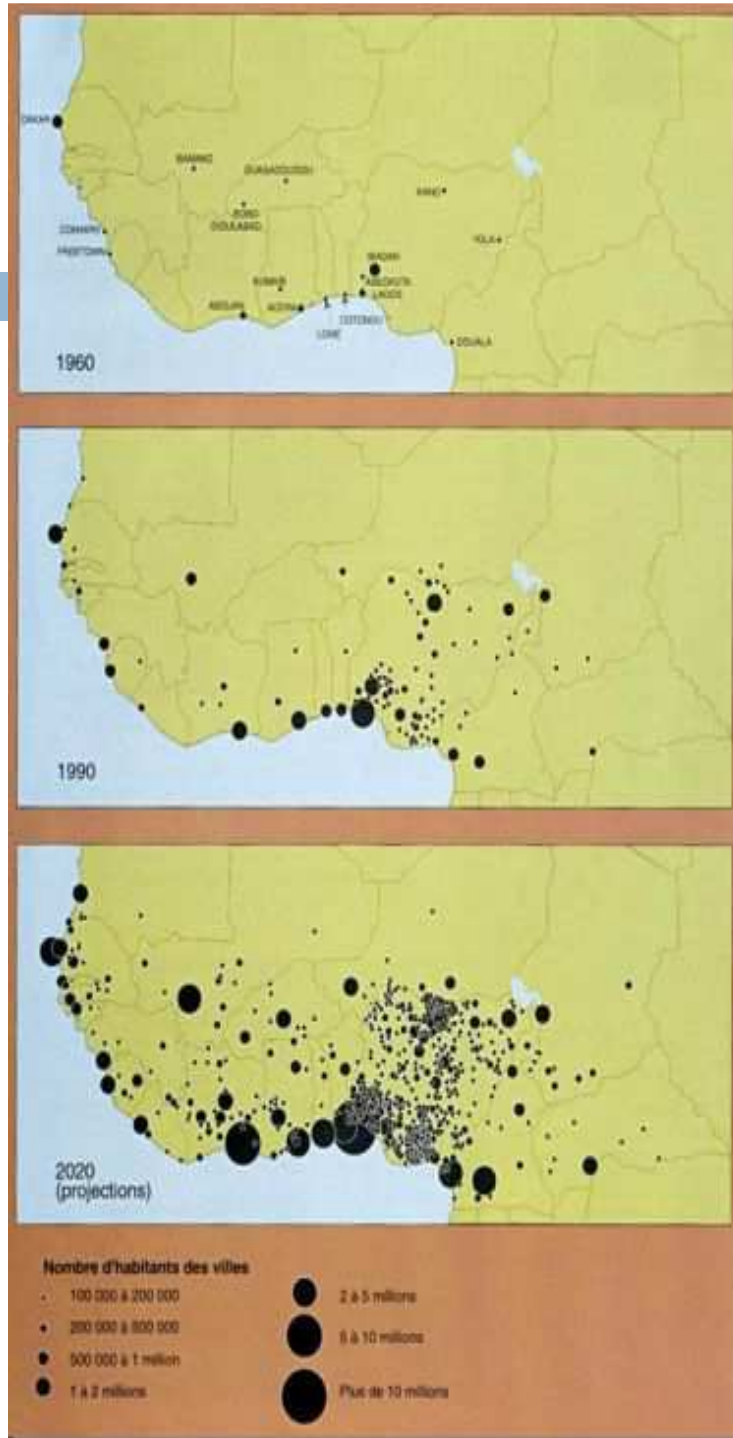
Plus de 10 millions



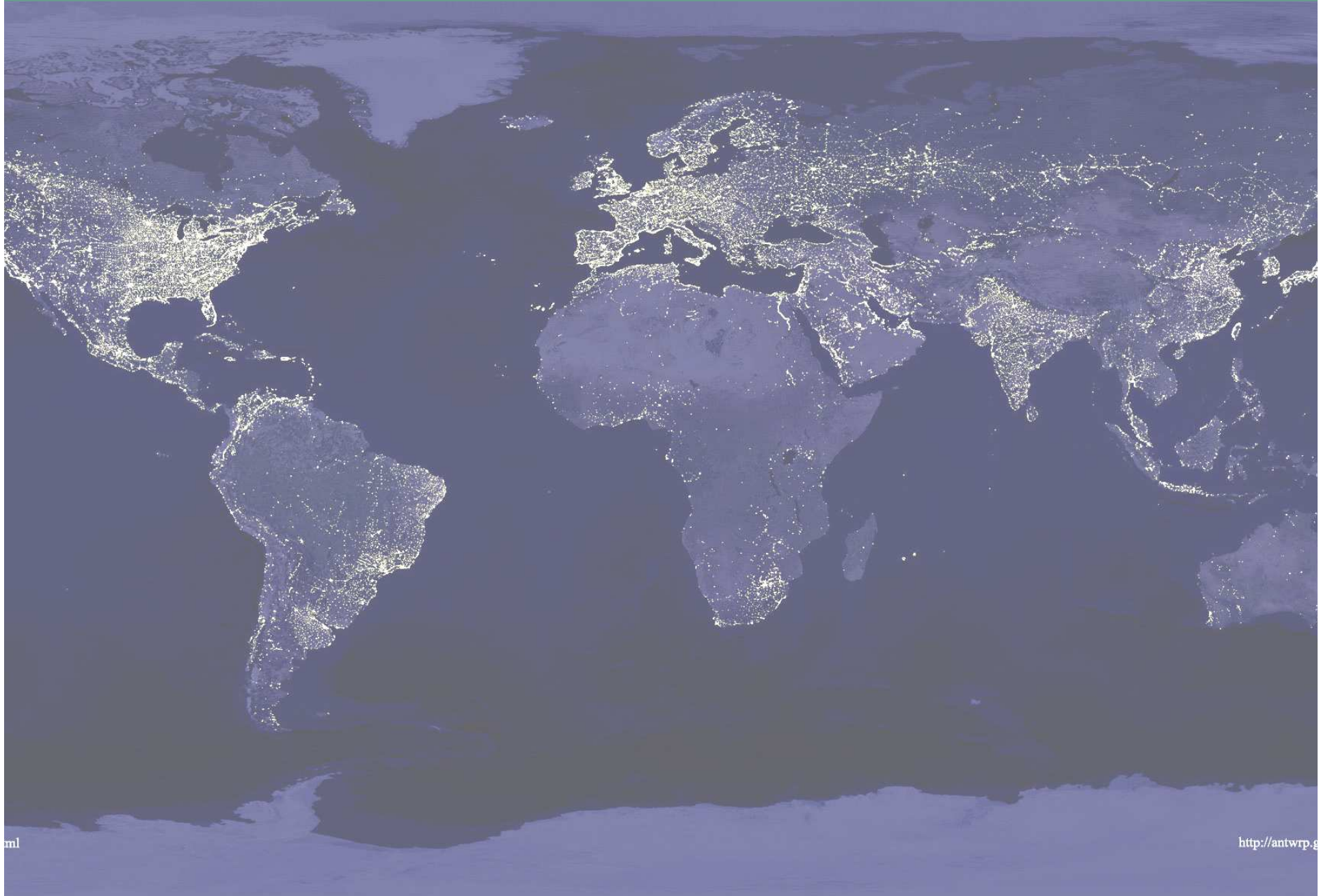
1960

Urban Growth in West Africa

2020



An urban world



General Health Impacts of Urbanisation :

Infectious Morbidity



1) High Human Population Densities :

Fast and Intense Circulation of Pathogenic Factors

Earlier primary phase infections (measles, tuberculosis, etc.)

➔ new epidemiology, strategies of immunization, etc.

Health Impacts of Urbanisation :

Emerging diseases

1) High Human Population Densities :

Fast and Intense Circulation of Pathogenic Factors

Earlier primary phase infections (measles, tuberculosis, etc.)

New Immunity

→ new epidemiology, strategies of immunization, etc.

2) Spatial and Social Heterogeneity

→ Socio-Spatial Health inequalities

An aerial photograph of Venice, Italy, showing the Grand Canal winding through the city. The canal is a prominent feature, curving from the top left towards the bottom right. The city is built on islands in the Venetian Lagoon, with a dense network of buildings and narrow streets. The water is a deep blue-green color. In the top left, there are some industrial or port structures. The overall view is from a high angle, looking down on the city.

Venice, Italy

General view of Venice, Veneto, Italy (45°35' N, 12°34' E).
<http://www.yannarthusbertrand.org>



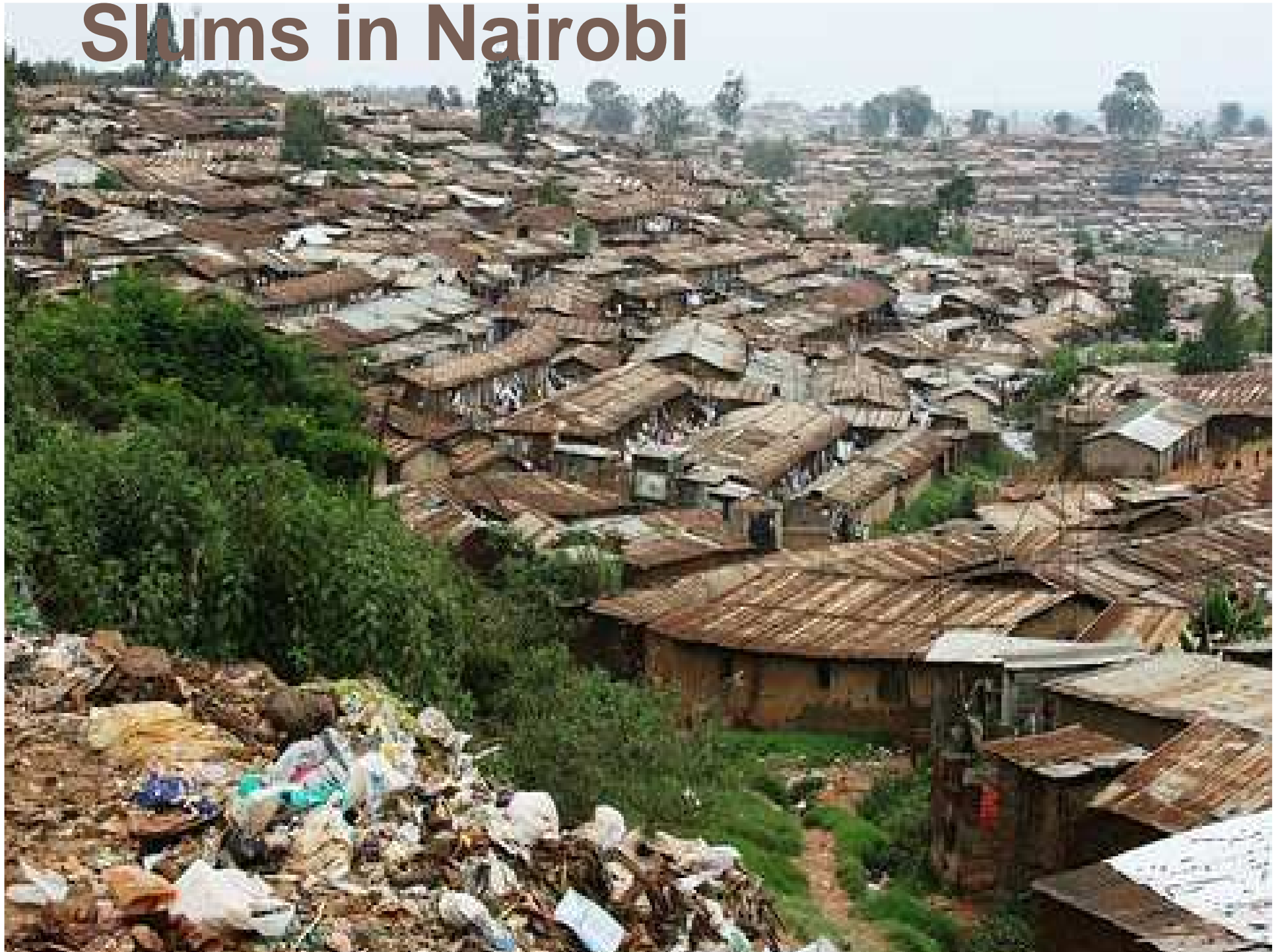
Dogon cities, Mali, West Africa

DOGON VILLAGE NEAR BANDIAGARA, Mali (N 14°23' W 3°39')
<http://www.yannarthusbertrand.org>

**Pikine,
Dakar's Subur
b**



Slums in Nairobi



PARIS



But also, slums in Paris



And new castle in Abidjan (Cote Ivoire)



General Health Impacts of Urbanisation :

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3) Spaces are open and interconnected → intense circulation

inside the urban area,

between urban areas,

between urban and rural areas

→ multilevel approaches, specially for emerging diseases

Challenges 1



→ Morbidity

- Old diseases (dysentery, respiratory diseases, etc.)
- « New » old diseases : malaria dengue, etc
- New diseases (HBP, K, diabète, etc)
- → **co-morbidity, co-evolution**

Challenges 2



**Process of emergence/process of
urbanisation**