

Population numbers and population density

Total population estimates for the region given in Figure 1 are based on country estimates for 2001, derived by national or international agencies. These numbers are distributed over differing areas of land, as reflected in Table 1, giving rise to differing overall population densities from one country to another.

Table 1

Total population and overall population density.

Country	Population (million)	Density (no./km ²)
Cambodia	12.3	68
China/Yunnan	40.8	107
Lao PDR	5.4	23
Myanmar	51.1	76
Thailand	61.2	119
Viet Nam	79.5	238

However, such a summary table gives only a broad macro impression. The decentralized distribution pattern gives a much better sense of the population profile. The total population per unit area (Figure 5), the overall population density per unit area (Figure 6) and the population density per unit area of each individual country (Figures 6a - 6f) give complementary information.

Mapping total population per unit area gives a quick overview of numbers and their distribution within each country and in the region as a whole that have to be taken into consideration to disease distribution pattern and differential economic burden in relation to malaria and other disease control programs.

The distribution of the total population on the basis of unit area (Figure 5) shows substantial clustering, *e.g.* in central Myanmar, in the delta area in Viet Nam, in parts of northeast Thailand, in major urban areas. Most of the individual rural counties of Yunnan province of China do not appear to have particularly large population numbers but there are

urban clusters in the north. Lao PDR has fairly uniform, lower population numbers per unit area, reflecting in part the lesser urban aggregations than are evident in countries with larger overall population size.

When population density is considered (Figure 6) the picture changes considerably. Lao PDR has a low population density, as do some districts of Myanmar and some provinces of eastern Cambodia. On this basis Yunnan exhibits fairly uniform, comparatively high population density, reflecting the relatively small land area per county. As expected, urban centers have relatively high population densities; where these coincide with the river delta region these high density areas are quite extensive. Differing agricultural practices of course have influence on population density in rural areas. In the presence of high economic growth population dynamics change the distribution profiles, so that at any one time the figures for a given area are approximate only.

Both total population and population density are important in terms of disease patterns and health sector operations. They are pertinent to the magnitude of the task, to disease transmission, to funding and to resource allocation strategies. The total population figures identify the numbers to be serviced in each area, while the density in each unit area relates to the infrastructural requirements involved.

TOTAL POPULATION
by administrative unit area 2001

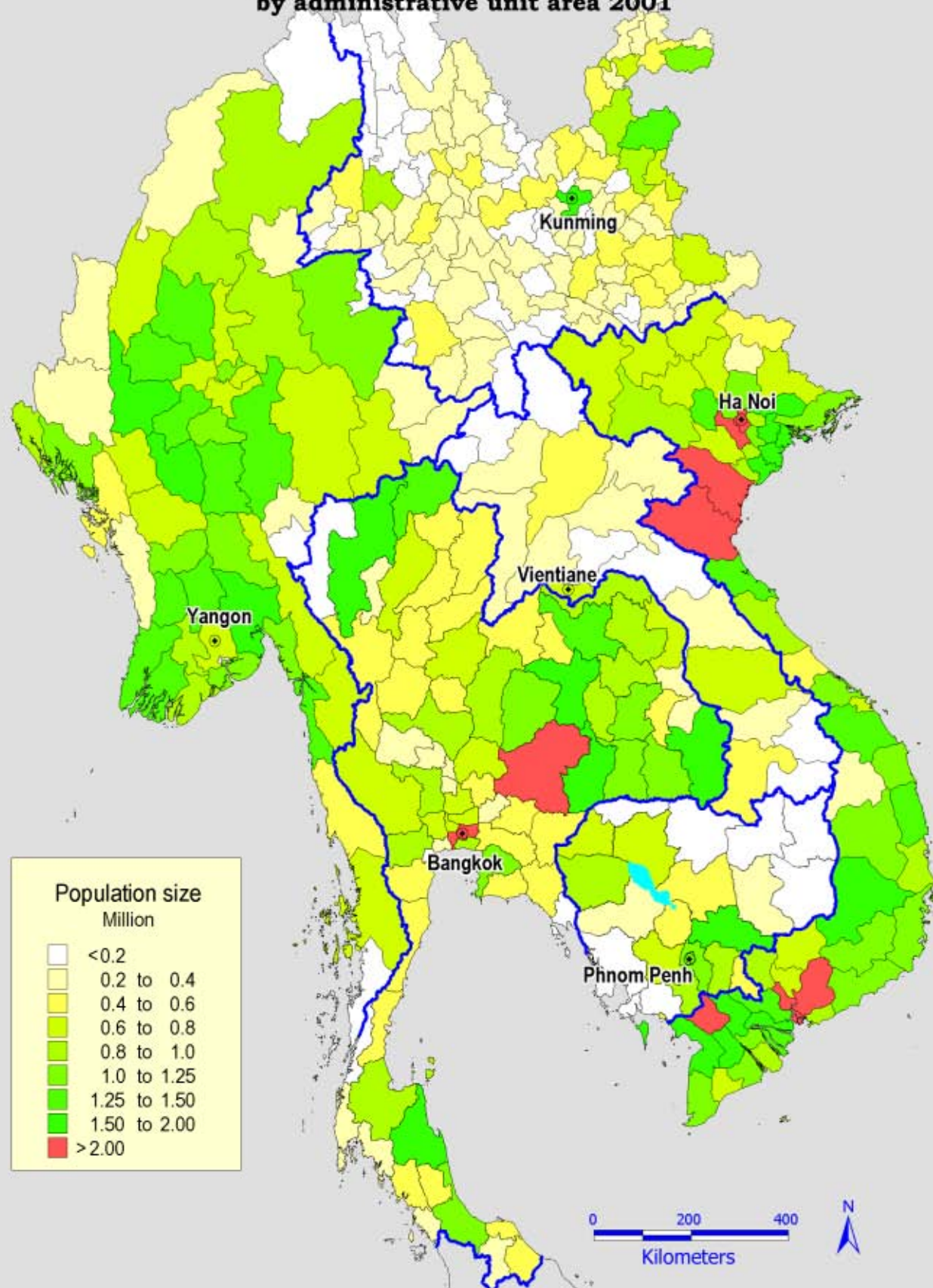


Figure 5

POPULATION DENSITY
by administrative unit area 2001

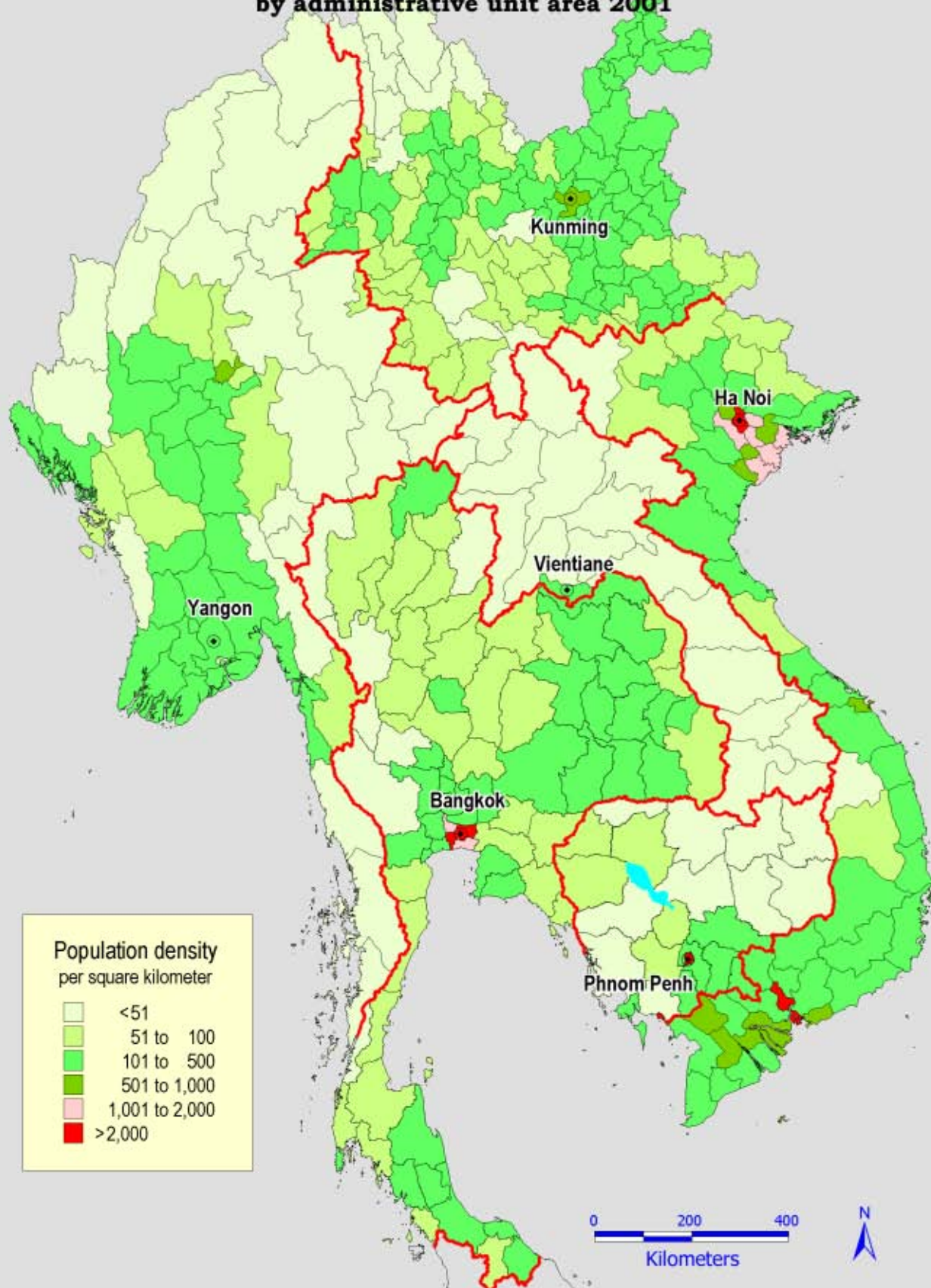


Figure 6

Cambodia

**POPULATION DENSITY
by administrative unit area 2001**

China / Yunnan

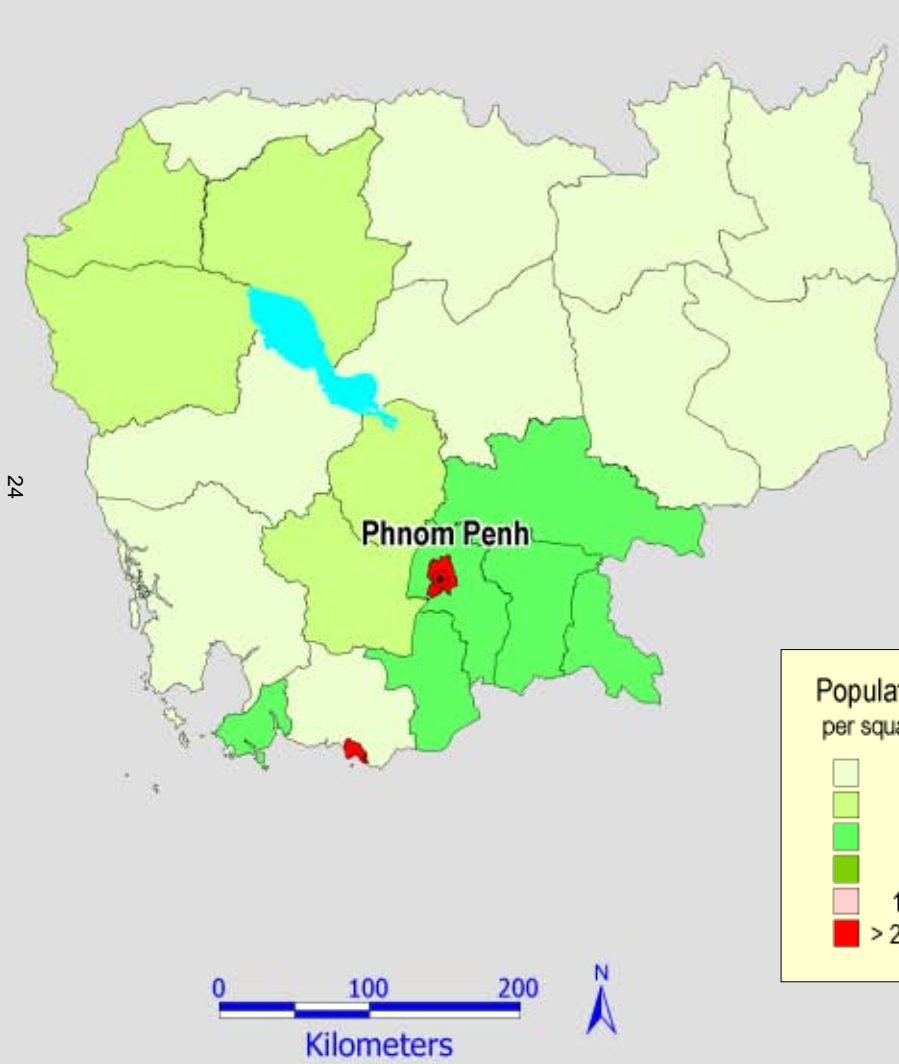


Figure 6a

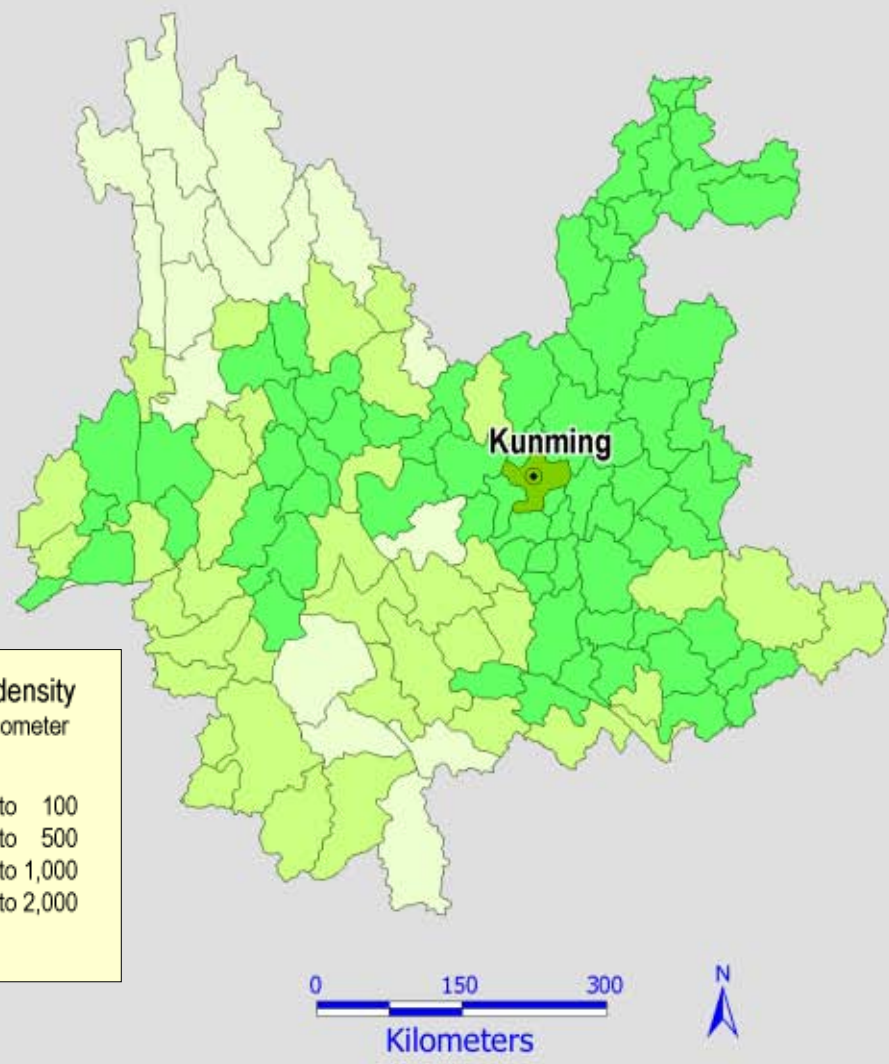


Figure 6b

Lao PDR

**POPULATION DENSITY
by administrative unit area 2001**

Myanmar



Figure 6c

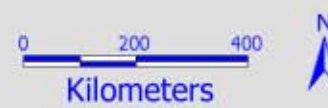
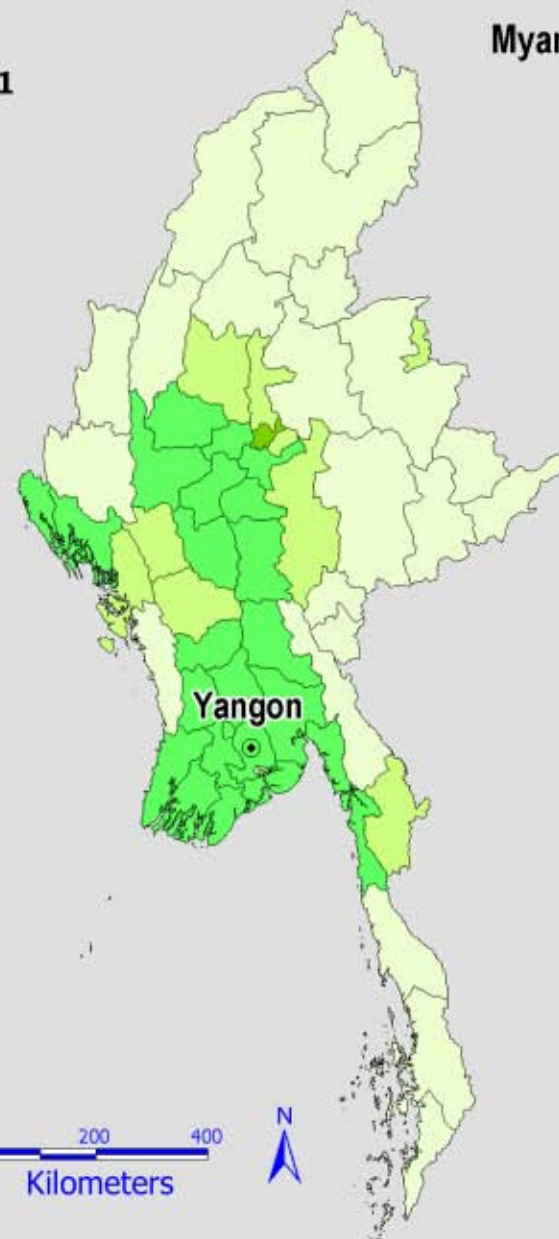
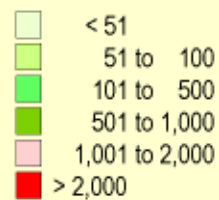


Figure 6d

Population density
per square kilometer



Thailand

**POPULATION DENSITY
by administrative unit area 2001**

Viet Nam



Bangkok

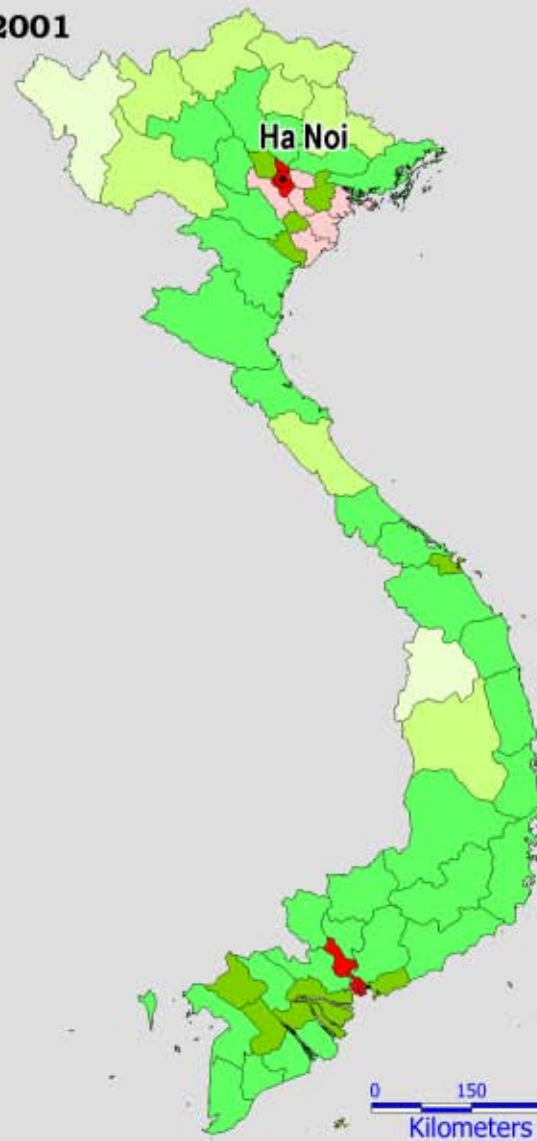
Population density
per square kilometer



0 150 300
Kilometers



Figure 6e



Ha Noi

0 150 300
Kilometers



Figure 6f