LA CITTA' ENERGETICAMENTE SOSTENIBILE

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state of world population 2007

Unleashing the Potential of Urban Growth

Una tendenza che si è sviluppata nel ventesimo secolo, che continua e che riguarda tutto il mondo è l'esodo dalle campagne verso la città

In 2008, the world reaches an invisible but momentous milestone: For the first time in history, more than half its human population, 3.3 billion people, will be living in urban areas. By 2030, this is expected to swell to almost 5 billion. Many of the new urbanites will be poor. Their future, the future of cities in developing countries, the future of humanity itself, all depend very much on decisions made *now* in preparation for this growth.

1 SOME DEFINITIONS

a) *Urban.* Settlements or localities defined as "urban" by national statistical agencies.

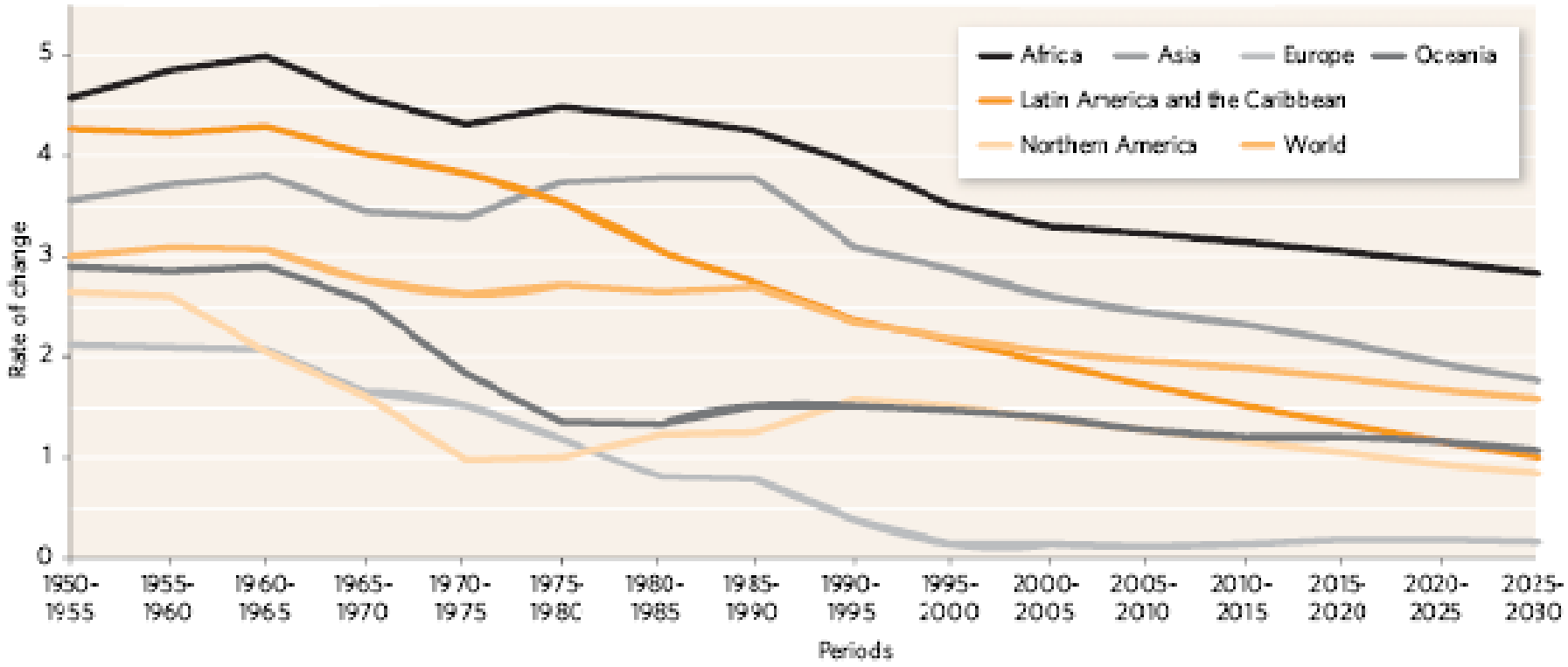
b) *Urbanization.* The process of transition from a rural to a more urban society. Statistically, urbanization reflects an increasing proportion of the population living in settlements defined as urban, primarily through net rural to urban migration. The *level* of urbanization is the percentage of the total population living in towns and cities while the *rate* of urbanization is the rate at which it grows.

c) *Urban growth.* The increase in the number of people who live in towns and cities, measured either in relative or absolute terms.

d) *Natural increase.* The difference between the number of births and number of deaths in a given population.

e) *The urban transition.* The passage from a predominantly rural to a predominantly urban society.

Figure 1: Average Annual Rate of Change of the Urban Population, by Region, 1950-2030



Source: United Nations. 2006. *World Urbanization Prospects: The 2005 Revision*, Table A.6. New York: Population Division, Department of Economic and Social Affairs, United Nations.

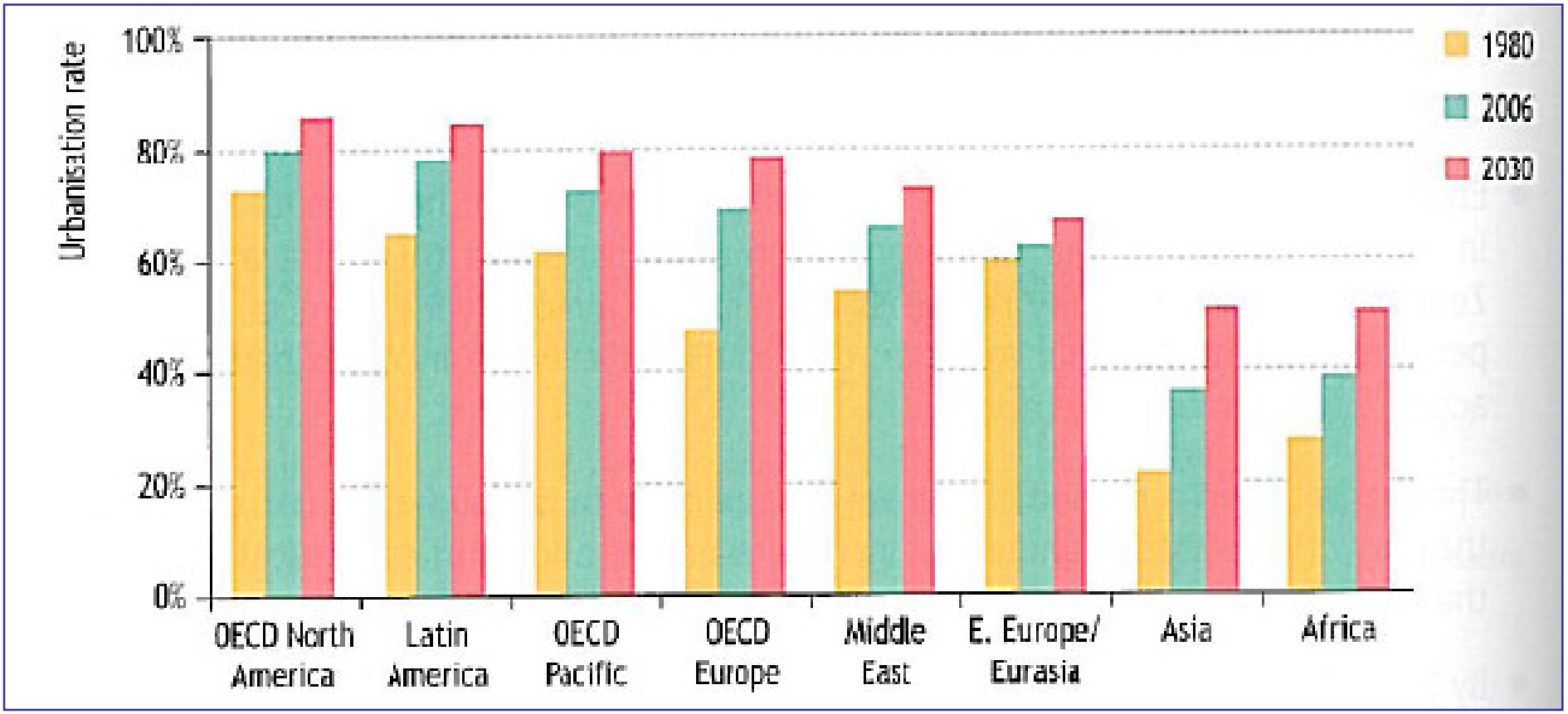
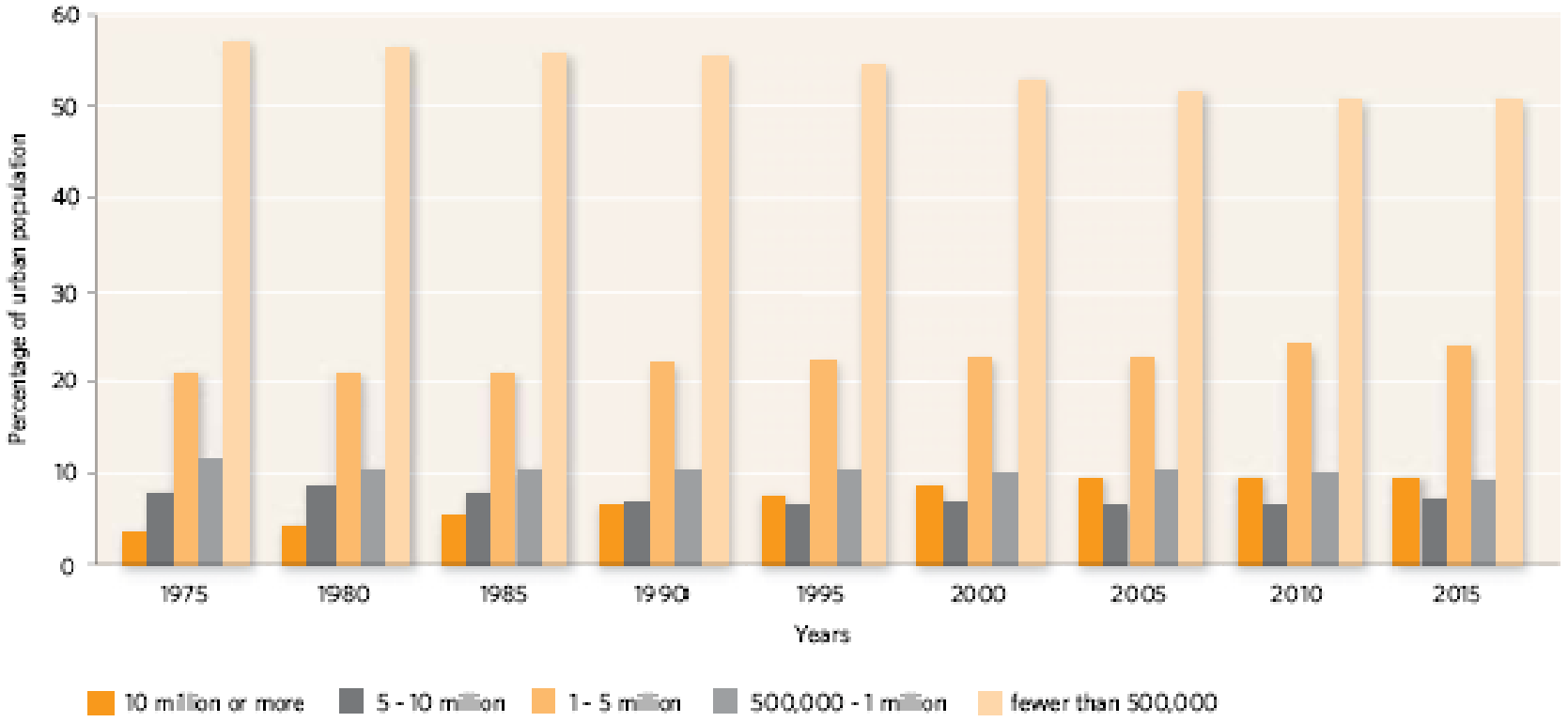

Urbanisation rate
100%
80%
60%
40%
20%
0%
1980
2006
2030
OECD North America
Latin America
OECD Pacific
OECD Europe
Middle East
E. Europe/ Eurasia
Asia
Africa

Figure 2: Urban Population, by Size Class of Settlement, World, 1975-2015



Source: United Nations. 2006. *World Urbanization Prospects: The 2005 Revision*, Table A.17. New York: Population Division, Department of Economic and Social Affairs, United Nations.

The land area occupied by cities is not in itself large, considering that it contains half the world's population. Recent estimates, based on satellite imagery, indicate that *all* urban sites (including green as well as built-up areas) cover only 2.8 per cent of the Earth's land area.[2] This means that about 3.3 billion people occupy an area less than half the size of Australia.

To Sprawl or Not to Sprawl

There is much debate among experts over the advantages of compact versus decentralized cities, but no consensus. Disagreement arises over the varied sources of sprawl, methodological issues and conflicts in values.

Managing urban growth has become one of the most important challenges of the 21st century.[3]

Good governance will indeed be essential in our urban future; however, its concerns and planning horizons must extend beyond *current* needs. In many developing nations, present urban problems are only the beginning. As globalization continues, massive future urban growth is both inevitable and necessary, but the way it grows will make all the difference. Cities need a longer-term strategy for expected change.

- About two-thirds of the world's energy – an estimated 7 900 Mtoe in 2006 – is consumed in cities, even though only around half of the world's population lives in urban areas. City residents consume more coal, gas and electricity than the global average, but less oil.

- Increases in urbanisation through to 2030 are projected to drive up city energy use to almost 12 400 Mtoe in the Reference Scenario. By 2030, cities are responsible for 73% of the world's energy use. Some 81% of the projected increase in energy use in cities between 2006 and 2030 comes from non-OECD countries.

- Energy use per capita of city residents is slightly lower than the national average in the United States, the European Union and Australasia (Australia and New Zealand). By contrast, city residents in China use almost twice as much energy per capita as the national average, due to higher average incomes and better access to modern energy services.

- By 2030, 87% of US energy will be consumed in cities, up from 80% in 2006. In the European Union that figure will rise from 69% to 75% over the *Outlook* period. Australasian cities' share of energy consumption will rise from 78% to 80% by 2030 and Chinese cities account for 83% of Chinese energy consumption in 2030, up from 80% today.

Table 8.2 • World energy demand in cities by fuel in the Reference Scenario

	2006		2015		2030		
	Mtoe	Cities as a % of world	Mtoe	Cities as a % of world	Mtoe	Cities as a % of world	2006-2030*
Coal	2 330	76%	3 145	78%	3 964	81%	2.2%
Oil	2 519	63%	2 873	63%	3 394	66%	1.2%
Gas	1 984	82%	2 418	83%	3 176	87%	2.0%
Nuclear	551	76%	630	77%	726	81%	1.2%
Hydro	195	75%	245	76%	330	79%	2.2%
Biomass and waste	280	24%	358	26%	520	31%	2.6%
Other renewables	48	72%	115	73%	264	75%	7.4%
Total	**7 908**	**67%**	**9 785**	**69%**	**12 374**	**73%**	**1.9%**
Electricity	*1 019*	*76%*	*1 367*	*77%*	*1 912*	*79%*	*2.7%*

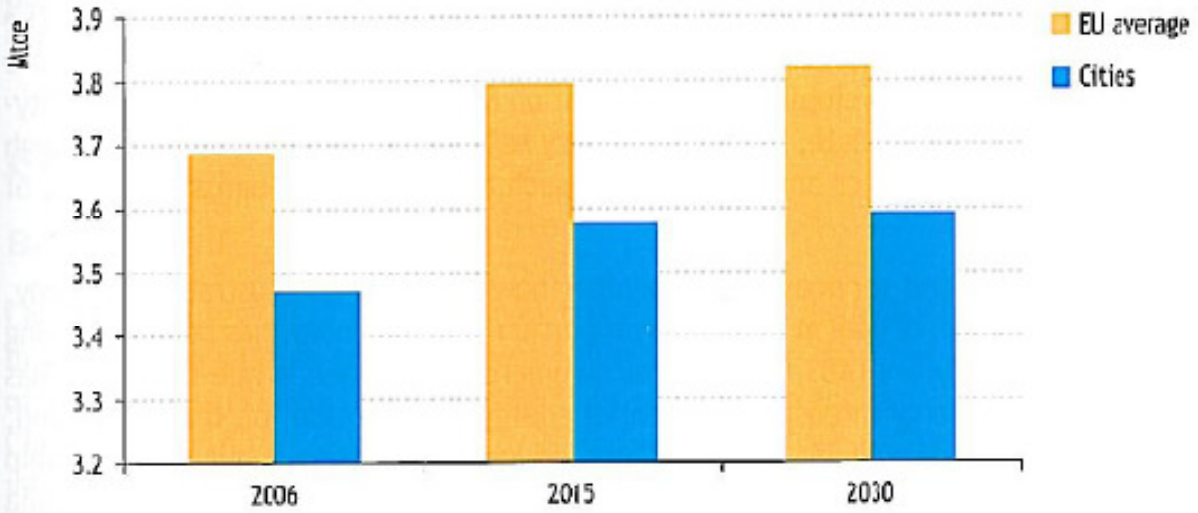
* Average annual growth rate.

Table 8.4 • European Union energy demand in cities by fuel in the Reference Scenario

	2006		2015		2030		
	Mtoe	Cities as a % of regional	Mtoe	Cities as a % of regional	Mtoe	Cities as a % of regional	2006-2030*
Coal	207	64%	214	66%	183	70%	-0.5%
Oil	397	59%	388	60%	384	64%	-0.1%
Gas	397	91%	456	92%	536	96%	1.3%
Nuclear	187	73%	171	74%	138	80%	-1.3%
Hydro	19	74%	25	76%	31	82%	1.9%
Biomass and waste	41	45%	61	46%	93	49%	3.4%
Other renewables	10	70%	29	72%	62	76%	8.1%
Total	**1 259**	**69%**	**1 344**	**71%**	**1 427**	**75%**	**0.5%**
Electricity	*176*	*73%*	*204*	*75%*	*245*	*79%*	*1.4%*

* Average annual growth rate.

Figure 8.4 • Per-capita energy demand in the European Union and EU cities in the Reference Scenario



▲ *An elderly man outside his home: a traditional hutong in Beijing, China. The white character on the wall indicates that the building is scheduled for demolition to make way for "urban development".*

grazie dell'attenzione