

Urban mobility in the Mediterranean
CMIM, Urban mobility Program
Damascus regional conference
13th of April 2009



Session D : Urban mobility, environmental and social impacts

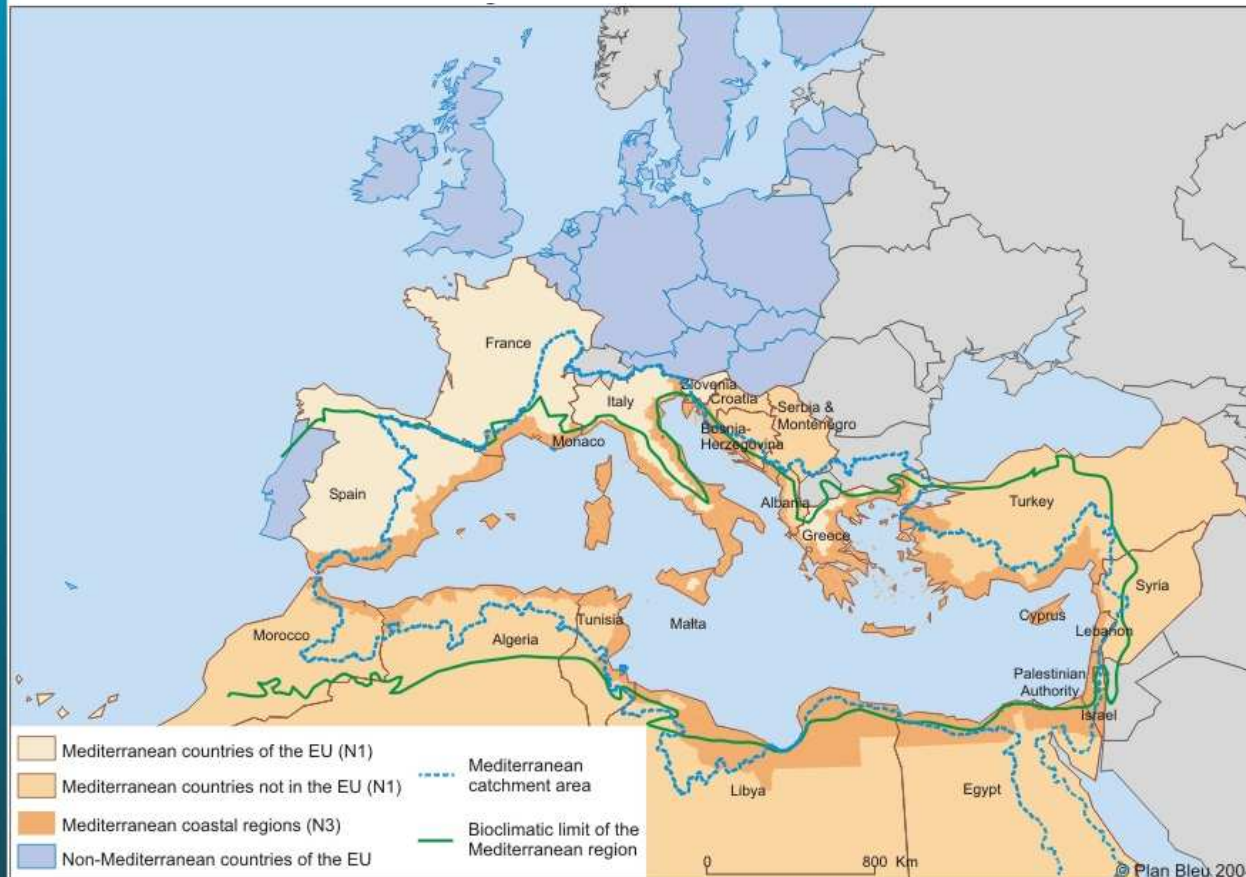
Sylvain Houpin
Blue Plan



- **Environmental and social impacts in Mediterranean cities**
- **Issues of environmental and social impacts**
- **Presentation of the session**



A singular “eco-region”



A multidimensional space

Source : Plan Bleu

- ➔ 46 000 km of coastline, 10% of vegetation species, 7% of marine species
- ➔ 430 M inhab., 7% of world pop., 13% of world GDP,
- ➔ 8% of CO2 emissions (increasing).



An urban model in crisis almost everywhere



*2/3 of the Mediterranean are living
in urban area...
They will be about 3/4 by 2030*

Photos: Le Caire, UN Habitat

➤ Some serious consequences for the environment

- An extensive land artificialization of natural areas and agricultural lands (wetlands, forests, coastal)
- Growing pressure on wetland (poor sanitation, inadequate waste management, pollution of groundwater)
- Air pollution domes (photochemical smog) already almost permanent in many cities: Athens, Cairo, Genoa, Barcelona and Marseille-Aix ...



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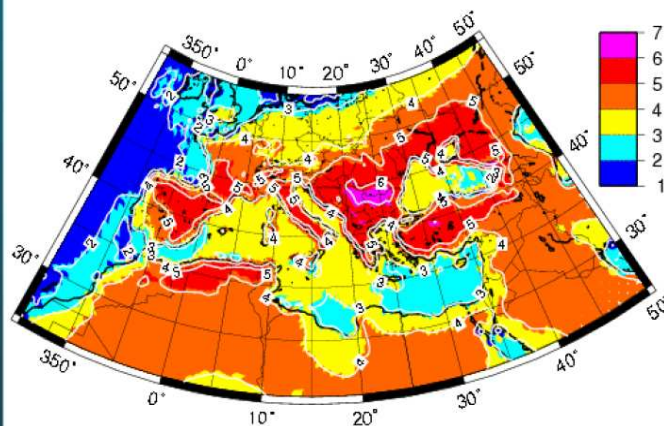


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The Mediterranean, « hot spot » of global warming

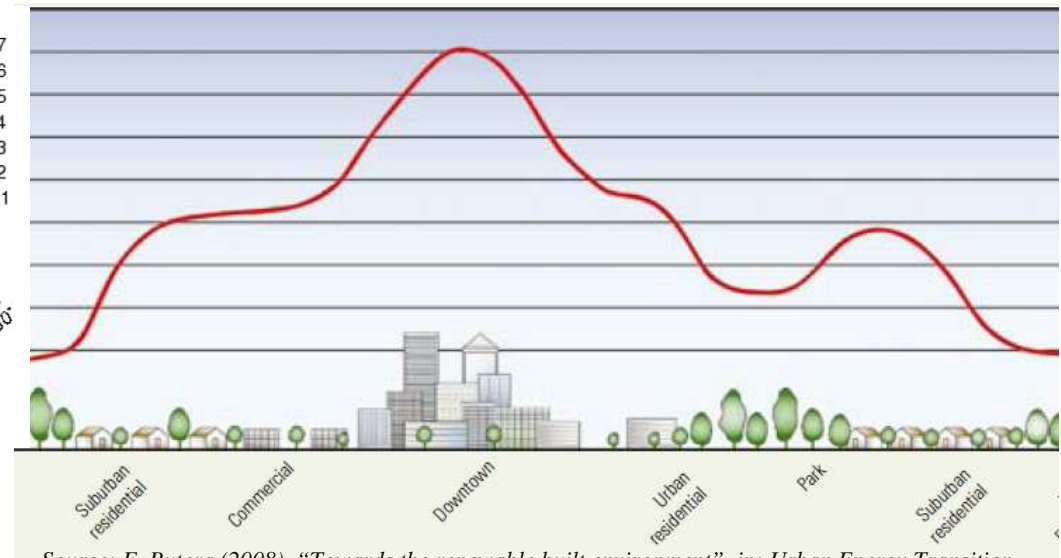
IPCC Projections IPCC for the Mediterranean 1980-1999 vs 2080-2099, A1B scenario

- Temperature increasing between 2.2 and 5.1 °C
 - Rainfall decreasing between 4 to 27%
 - Violent events increasing (droughts, floods)



Surface air temperature (°C) :
2070-2099 vs. 1961-1990
Summer

Source: Somot & al.



Source: F. Butera (2008), "Towards the renewable built environment", in: Urban Energy Transition, Elsevier.



An unsustainable urban mobility



- **North Countries (2003): 590 Cars / 1000 inhab.**
- **South and East Countries (2003): 124cars/1000 inhab.**

Photos: Plan Bleu

➤ A strong car and road dependence

- A marked recession of the use of public transportation;
- Congested transit system;
- Constant increase of informal systems (taxis, minibus ...)
- Fast growth of car ownership : the prospect of a mass motorization by 2020;
- A dilapidated state of individual and collective vehicle fleets;
- An almost total absence of soft modes(except for walking).

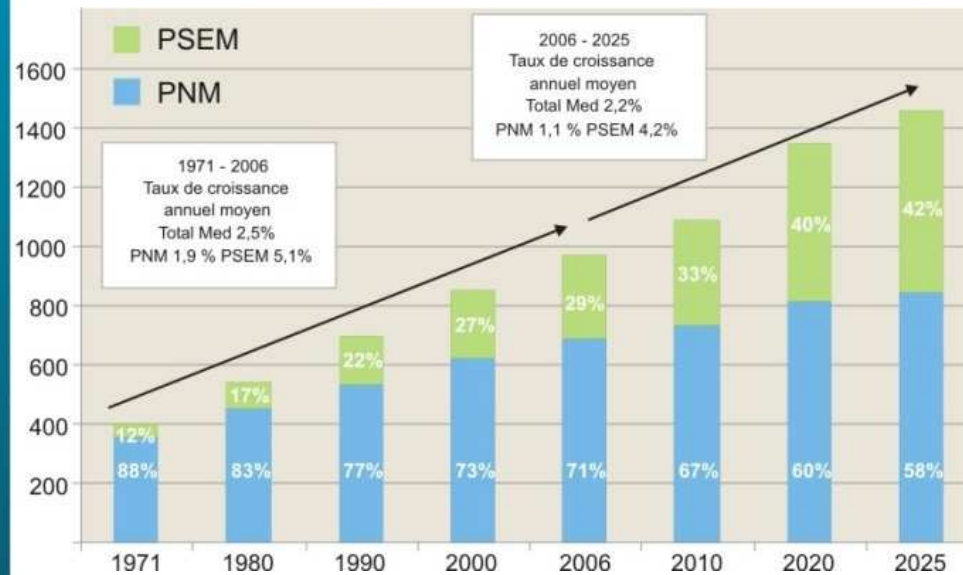


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An increasing primary energy demand for the transport sector

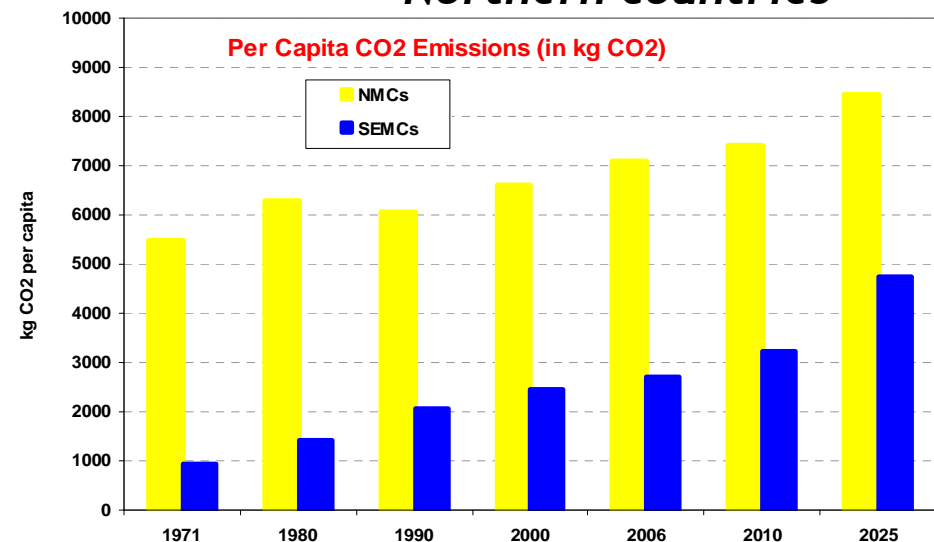


The demand of primary energy could be multiplied by 1.5 in the Mediterranean Sea by 2025

The growth rates of the demand of primary energy for the Southern and the Eastern countries is four times higher than the Northern countries

Some GHG emissions progressing more quickly than the world average

A growth rate, in the Southern and in the Eastern countries exceeding by twenty points the World trend.



A progressive awareness on sustainable urban mobility issues ...



Photos: Plan Bleu, AFD, ATMO PACA

... but for all to carry on

- missing or partial datas (GHG, particles)
- insufficient consideration of environmental impacts (eg. health stake)
- unsustainable consumption modes (urban sprawl and automobile dependency)



Environmental and social impacts from urban transports systems

3 axes to explore :

- *Local pollutions and urban quality of life*
- *Urban transit facing global warming issues*
- *The socio economic issues of urban transport*



Local pollution and urban quality of life

➤ **How to improve knowledge?**

What sort of hazards (Air quality, noise) is there ?

What are the impacts (Public health, economic evaluation) ?

What are the tools for monitoring and evaluation?

What are the health and environmental indicators?

➤ **What issues are involved ?**

For the people (public health ...)

For the urban dynamics (attractiveness, urban sprawl ...)

➤ **How to act on the emission sources ?**

How to influence individual and collective behavior?

How to promote technical innovation?



Urban transit facing global warming issues

➤ How to carry on awareness?

By the knowledge improvement (territorial approach of emissions)

By estimating the economic impacts of fossil fuel consumption?

By economic evaluations of the non-acting cost ? (energy, trade balance, territorial competitiveness)

➤ How to influence behavior?

By giving priority to demand management, controlling urban sprawl before supply based approaches ?

By promoting public transports rather than car?

By speed management?

➤ How to promote technological innovation?

In order to facilitate the models and concepts renewal (urban, telecommunications, lifestyles)

In order to facilitate the dissemination of “carbonless” technologies



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Social and economics issues of urban transport

➤ **What about accessibility in the Mediterranean cities?**

How to reduce spatial and social segregation ?

Which preferential prices for public transportation ?

What is the real cost of commuting for households ?

➤ **What are the transport sector challenges' in local economy ?**

What sector weight in the local economy ? (employment, education needs)

How to act on the informal sector ?

Gender issues in public transport ?



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Structuring transit system and urban integration

➤ Presentations:

- Dominique Robin, ATMO PACA France
- Mme Kawthar Hefny, EEAA, Cairo
- M Edouardo Croci, Boconi University, Milano

➤ Testimony:

- M Bernard Cornut, ADEME, France/Turquie

➤ Publication:

- M Sylvain Houpin , Plan Bleu



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