



# INTEGRATING CLIMATE CHANGE & ENERGY SECURITY IN PUBLIC POLICIES

*The case of Paris  
in the French & European contexts*

**Cynthia GHORRA-GOBIN**  
(Ph.D. urban planning UCLA)

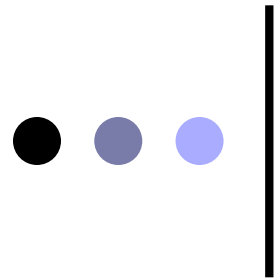


# Climate Change: « Cities are the answer »

« Many of the world's most difficult environment challenges can be addressed and solved by cities ..»

«... Cities are the best hope to realize our need for a bright, sustainable, and promising future »

*Herald Tribune, 12/04/07  
Douglas Foy & Robert Healy*



# Integrating the twin crisis (CC & ES) in public policies

Questioning the territorial « scale »

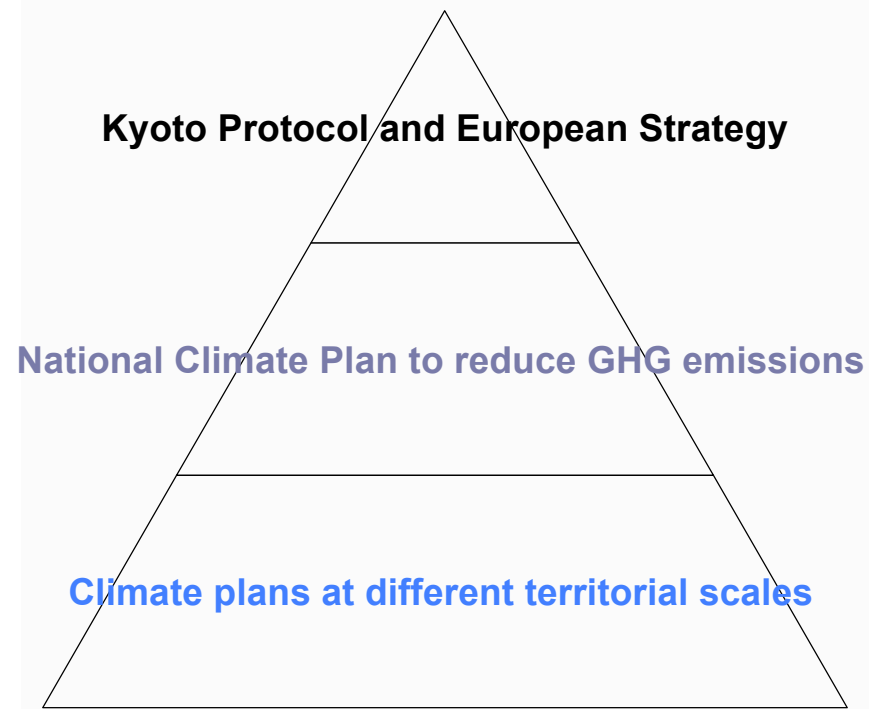
1- The European scale

2- The national scale

3- The local and urban scale

# ● ● ● | Working at different scales

- **Following the Kyoto protocol (1997) and the EU sustainable development strategy (SDS 2001)**
- **France has adopted a Climate Plan (2004) to stabilize national GHG emissions by 2010 at the level of 1990**
- **The national government asked local authorities to establish « climate plans »**





# 1- The European Scale

## ***1.1- The European Green paper (2006):***

Strategy for Sustainable, Competitive (internal energy market) & Secure Energy (external policy)

=> halt climate change and improve local air quality (based on IPCC recommendations)

1. Europe's increasing dependency on a few external suppliers (Russia & Opec) in a context of rising oil and gas prices
2. Emergency of tackling global warming
3. Completing the EU internal market for gas and electricity
4. Building a common external energy policy
5. Boosting renewable energies & research on low-carbon technologies through a strategic energy technology plan to prevent overlaps and reach 25% of renewable energies by 2020 (6,5% today)
6. Addressing global warming with a road map for reducing GHG by 30% in 2020



# 1- The European Scale

## ***1.1- The European Green paper (2006):***

Strategy for Sustainable, Competitive (internal energy market) & Secure Energy (external policy)

=> halt climate change and improve local air quality (based on IPCC recommendations)

## ***1.2- The Sustainable Development Strategy (SDS)***

- o 2001: Göteborg (preparation for World summit, 2002)
- o 2006: 12% of energy consumption and 21% of electricity consumption should be met by renewable sources by 2010
  - 5,75% of transport fuel should consist of biofuels
  - Saving 9% of final energy consumption by 2017
  - promote the European sustainable cities and towns campaigns



## 1.2- Sustainable Development Strategy

- First sustainable development strategy in 2001 adopted at the European Göteborg Summit (one year after the Lisbon European council of 2000)
- A revised version in 2006 in favor of climate change and clean energy
  - by 2010, 12% of energy consumption and 21% of electricity consumption should be met by renewable sources
  - by 2010, 5,75% of transport fuel should consist of biofuels
  - Until 2017, saving 9% of final energy consumption per year
  - Promote the European sustainable cities and towns campaigns



## The European and national scales

- At the European level, climate change is tackled along with energy security and energy savings
- In the French context, energy savings and climate change are still associated but there is an important division of responsibilities between the national level and the local lever. It follows that the issue of urban energy is not fully addressed by the local level as compared to the transportation question.



## 2- The national scale: French Climate Plan (2004- 2012)

### 2.1- National context :

Summer 2003, heatwave

December 1999, hurricanes

### 2.2- Main objectives of the climate plan:

- Save 54 millions of tons of CO<sub>2</sub> per year which means one ton by inhabitant per year
- Reduce energy consumption through incentives for the rehabilitation of buildings
- Have each locality adopt a local territorial plan to reduce GHG emissions



## 3- The local level: The case of Paris

### 3.1- The making of a plan:

- Following the local zoning plan (PLU) and the local transportation plan (PDU), the mayor of Paris decided (June 2005) to work on a Territorial Climate Plan in order to reduce GHG.
- This plan -which will be presented to the city council in July 2007- is called the **2007 White Book** (Livre Blanc)
- Air pollution in Paris does not result from industries: the city's economy is based on headquarters, offices and tourism.



## 3- The local level: The case of Paris

### 3.2- The two questions addressed by the plan :

- How to divide by 4 the total GHG emissions by 2050 (as compared to 1990)? (“strategy four” is part of the European and French legislations)
- How to improve the efficiency of the energy system?

*The White Book did not fully address the issue of using new technologies as a way to reduce GHG emissions but on how to improve public services such as transport and how to implement national legislation for the building sector. In France, it is extremely difficult for the local level to innovate and go beyond the national rules*



## 3-The case of Paris

### 3.2- The two questions :

- How to divide by 4 the total GHG emissions by 2050 (as compared to 1990)? => **transportation**
- How to improve the efficiency of the energy system given that 35% of energie primaire is directly used by the final consumer? => **building**



## 3- The case of Paris

### 3.3- The “concertation” process :

**17 public meetings= oct-dec. 2006**

**1,000 inhabitants participated (234 of them were involved in several meetings)**

**NGOs were part of the process**



## 3- The case of Paris

- 3.4-The building sector: implementing national rules
  - At the national level, a research program called “prebat” has the objective of 50kWh/m<sup>2</sup>/year for heating/climatisation in order to reduce energy consumption. ( 80% of the electricity produced is nuclear or hydroelectric)
  - At the city level,
    - according to the “Bilan Carbone” established in 2005: 27% of GHG are produced by heating buildings and water (for the built environment) and the built environment is consuming 46% of final energy  
In Paris, 85% of the Paris building stock goes back to prior 1975
    - The city is willing to give incentives for the creation of new energy-efficient buildings along national programs in new neighborhoods under construction ( “eco-neighborhoods”) and for the rehabilitation of the current housing stock
    - At the city level, there is serious willingness for implementing national rules concerned with saving energy in the housing stock



## 3- The case of Paris

### 3.5- Transportation: a local initiative

- In France, transportation is becoming the major focus of the policy in favor of reducing GHG at the local level, because it is the main domain for a local initiative
- Most city council members in Paris are mainly focusing on **alternatives to the car**.

According to the “Bilan Carbone”, transportation (people) represents 27% of GHG, transportation (goods) 27% and, the building sector 27%.

Within the transportation category (54% of total GHG), 40% results from the air transportation (goods and people)



## 3- The case of Paris

### 3.5- the transportation of goods and people

1. Reduce by half the number of cars and introduce transportation vehicles twice as clean
2. Enhance urban forms by redesigning and creating public spaces and pedestrian streets
3. Bring changes in territorial governance as concerning transportation
4. Optimize the transportation flows of goods and commodities within the city



## 3- The case of Paris

### 3.5.1- Reducing the number of cars:

- Improve the transit system for people living in the suburbs and working in Paris
- Increase the use of bicycles, rollers and walking and provide adequate parking for bicycles while creating a network of streets for bicycles
- Limit the number of tourist buses
- Increase the number of “batobus” for tourists and for commuters
- Include the use of jitney services through a dialogue with the taxi drivers
- Inform the inhabitants



## 3- The case of Paris

### 3.5.2- Enhance urban forms by redesigning and creating public spaces

- Redesigning and creating public spaces and streets for pedestrians
- Widening side-walks for the pleasure of the promenade
- A fair sharing of the urban space between cars, pedestrians, rollers and bicycles
  - Several streets, boulevards and avenues have seen their sidewalks enlarged
  - The bus system is organized around a system of “couloirs” separating them from the rest of the circulation flow, thus increasing their average speed while bus stops are seriously improved



## 3- The case of Paris

### 3.5.3- change in territorial governance

- Find a better coordination between regional and local levels : between PDU(Ile de France region) and PDU(Paris)
- Optimize travels from suburbs to suburbs in order to avoid going through Paris
- Improve relations between public actors (Régie Autonome des Transports Parisiens, Société Nationale des Chemins de Fer) and private actors (taxis & rent a car companies)



## 3- The case of Paris

### 3.5.4- Optimize the transportation flows of goods and commodities in relation with local companies and merchants

Paris receives every year 31.5 million of tons of goods and the transportation of goods represent 20% of the urban traffic. These flows should be optimized through a negotiation process with the merchants and the companies (using the rail ).

265 Kg equivalent carbon for the transport of 1 ton by lorry;  
570Kg equivalent carbon for the transport of 1 ton by air and  
3Kg equivalent carbon by rail



## 3- The case of Paris

At the local level, one should also take into consideration the initiative of a public transit agency: RATP (régie autonome des transports parisiens)

- By the end of 2007, 1/3 of their buses which means 1,300 buses will be functioning on a mixture of gasoline and clean energies



## 3- The case of Paris

### 3.5- The local demand to the national level

- The local level (Paris) is putting some pressure on the national level:
- transit should become a priority
- « soft » modes of transportation such as rollers, bicycles and pedestrians should be given incentives



## Conclusion: Public policies in favor of CC in Paris rests on a mix of rules

The objective of dividing by 4 (factor four) the total GHG by 2050 rests on a special mix of European, national and local rules dealing with different sectors

Paris does not have plants, thus the emphasis on the building sector (energy saving) and mainly on the transportation sector.

In the French context, the transportation (people and goods) sector (people & goods) represent the main public policy which rests on a local initiative. In Paris, they represent 54% of GHG emissions.

Urban energy is not a concept which could be applied to French cities



# Conclusion:

## The Paris dilemma

- Paris is a world city, an international city and a global city: Paris attracts a large number of tourists (given its historic legacy, its culture and its influence in different artistic fields), a diplomatic community (as a national capital) and a cosmopolitan business community.
- Given its attractiveness in different domains, air transportation has been increasing between 3% and 5% per year for the last years. It depends on gasoline and represents 40% of the volume of GHG produced by the transportation sector. Paris could certainly improve its transportation system and find alternatives to the car but what about the air transportation issue?

**The dilemma is then how to reduce GHG emissions without compromising its local economy**