



# **Towards a Euro-Mediterranean sustainable urban strategy (EMSUS) within the framework of the Union for the Mediterranean.**

## **A diagnosis of the Mediterranean cities situation**

Contribution to the urban working group of the Secretariat of the Union for the Mediterranean

January 2012

# Contents

<b>Background</b>	<b>3</b>
<b>Demographic and economic challenges</b>	<b>4</b>
<i>Taking into account the new scales of territories under urban influence</i>	<i>4</i>
<i>Building more "decent" cities for inhabitants and users</i>	<i>4</i>
<i>Promoting more sustainable consumption modes</i>	<i>5</i>
<b>Ecological challenges</b>	<b>7</b>
<i>Coordinating the various scales of water cycles</i>	<i>7</i>
<i>Anticipating the coming energy transition</i>	<i>8</i>
<i>Developing strategies for climate change adaptation</i>	<i>9</i>
<b>Democratic challenges</b>	<b>10</b>
<i>Consolidating local urban management</i>	<i>10</i>
<i>Integrating informal sectors in urban policies</i>	<i>11</i>
<i>Involving residents and users in planning and urban project design</i>	<i>11</i>
<b>Prospects</b>	<b>12</b>

## Background

At the first Union for the Mediterranean (UfM) ministerial conference on sustainable urban development held in Strasbourg on 10th November 2011, the Ministers responsible for urban development adopted a declaration affirming renewed awareness of issues relating to the urban sector as a point of convergence and integration of many sectorial policies but also as a privileged place for inclusive governance called for by the recent « Arab spring ».

The UfM ministers for urban development were thus able to restate the need to « *implement the balanced and sustainable planning and development of cities and regions, capable of addressing demographic issues as well as the requirements of social solidarity and economic performance, respectful of cultural heritage and focused on preserving the environment and cultural diversity* ».

Amongst other commitments made on this occasion, the ministers declared their readiness « *to encourage and facilitate the emergence of a sustainable development approach in the Euro-Mediterranean region* », and called for « *the elaboration of a Euro-Mediterranean sustainable urban strategy (EMSUS), respecting the specific pace of each State, to be formulated by the senior officials for the sector with the support of the UfM Secretariat* ».

This document will seek to identify the main challenges facing Mediterranean cities which the EMSUS will be called upon to address. It is intended as an initial contribution to the inevitably open and interactive process called for by the UfM Secretariat.

## **Demographic and economic challenges:**

Whilst over half the world population now lives in cities and in urban areas, two in every three inhabitants in the countries around the Mediterranean are already urban-dwellers. By around 2050 the urban population in the countries on the European shore is set to stabilise at almost 170 million (140 million in 2005), whereas in the countries on the Eastern and Southern shores it is expected to double to over 300 million (151 million in 2005). The driver of this urban growth is increasingly endogenous, and fed by domestic redistribution, inter-urban migration and rural exodus which in some cases flows are drying up (Egypt, Tunisia...), in others holding up (Turkey, Syria, Morocco). A good third of this growth will take place in Mediterranean coastal regions, particularly in coastal cities.

- Taking into account the new scales of territories under urban influence

In the Mediterranean, thirty political and economic capitals and some few cities of several million people, concentrate economic activities, financial resources and the more affluent populations, while they are hosting only a third of the all urban population. Apart from the two world-scale megapolis of Cairo and Istanbul (almost 16 and 11 million inhabitants respectively, 13<sup>th</sup> and 28<sup>th</sup> largest cities in the world), about 18% of city-dwellers live in 85 medium-sized cities (between 300 000 and one million inhabitants), and virtually half in over 3 000 towns with a population of less than 300 000.

Although service provision has been improving for the past twenty years and more, major imbalances continue to exist between large and small towns, core and peripheral areas and favoured and poor districts.

Very few of the metropolitan areas to the North of the Mediterranean, formed by the merging of vast areas under urban influence with multiple transport, research, knowledge and finance networks are actually in a dominant position at a global level. The commercial ports of Barcelona, Genoa and Marseille, for example, are struggling to compete with Rotterdam to attract the container traffic reaching Europe from Asia.

Prospects for the Southern and Eastern countries are even more contrasted and are marked by a high level of uncertainty regarding their economic and cultural attraction, whether at national, regional or global level. With the increasing openness of economies and particularly with the prospect of building a free trade area in the Mediterranean, territorial disparities within the cities themselves, appears to be increasing.

- Building more "decent" cities for inhabitants and users

Almost everywhere in the Mediterranean, cities which used to be compact are now spreading along coastlines. They fill their surroundings area, absorb small villages previously independent, and use of suburban farmland. The result is both artificialized natural areas increasing human pressure on the natural environment (especially in coastal areas), polluted aquifers, and heavily polluted air at local level and sharp rise in greenhouse gas emissions. This also leads fragmentation and specialization dynamics of urban areas, which result in an ever increasing distance between centres of employment and services and the poorest classes, together with a concentration of poverty and disadvantaged people questioning the social cohesion within cities.

For the North Shore cities, recent developments have been marked by the dispersal of homes and jobs, and a double move of suburbanisation and metropolization on ever-expanding territories, where access to housing for the poorest people remains a challenge.

In the South and East of the Mediterranean, urban sprawl has long been driven by widespread "spontaneous" housing. Depending countries and cities, between 30 and 70% of urban fail to build their homes other ways than through informal sector in a legal or illegal manner. This is reflected in the growth of extending zones on the outskirts and a difficult access to water, sanitation and other basic urban services. The marked concentration of people in the cities is creating difficult problems in terms of jobs (youth unemployment over 30 % in several countries), access to essential facilities and services (water, sanitation) and household waste management.

The urban development policies, plans and projects designed and implemented in Mediterranean cities need to focus on the improvement of access to basic services and in some cases to jobs as well as the management of natural resources by providing a response to urban sprawl and socio-spatial segregation.

- Promoting more sustainable consumption modes

➔ *Mastering mass motorisation trends and reducing the growing car dependency*

Although walking is still a leading travel mode in southern and eastern cities of the Mediterranean, growing use of private car fuelled by the declining quality of public transport services is driving unregulated urban sprawl and increasing car dependency in most cities.

This sprawling urban model, fuelled by public policies in favour of household equipment (opening up of markets to car imports, growth in consumer credit, fuel subsidies, etc.) struggles to run without a real economic development. It mainly results in wasted time as a result of road congestion, but also higher household and state energy bills and the consequent impact on the trade balance of Mediterranean countries, oil importers for some of them. The resulting cost for the community is probably very high and such dysfunctions seriously affect the competitiveness of Mediterranean cities.

➔ *Mastering a growing energy demand in building sector*

Under the combined effect of demographic pressure and economic growth, the region is witnessing a sharp increase in energy demand, especially for electricity, which is set to increase 1.5-fold by 2030. Demand is expected to rise 4 to 5 times faster in the SEMCs than in the countries on the northern shores, accounting for over 42% of the Mediterranean Basin's energy demand by 2030, compared with 30 % in 2007.

In the Mediterranean, buildings (residential and tertiary sectors) account for some 38 % of final energy consumption (this percentage ranges from 27-65 % in the SEMCs). The « residential » sector (in other words the housing produced by the conventional sector) consumes between 21 and 51 % of domestic electricity production. Looking ahead, the increasing share of buildings in energy and electricity balances is unlikely to level off over the next few years given the region's growing population and rising global standard of living.

The «residential» sector, which alone accounts for 70 % of GHG emissions from buildings, is a major issue, as it afford to act both on demand side (energy efficiency measures) as well as on supply side (inclusion of renewable energy). Accounting alone for over a third of the Mediterranean countries' energy consumption, this sector could provide up to 60 % energy savings at relatively competitive prices.

**➔ *Anticipating changes in in household consumption to maintain healthy environment in the cities***

Growing consumption in the southern countries and the pressures it will induce on production as well as the waste composition is another major issue. For the countries to the South and East of the Mediterranean, increased household income is being reflected in steeper growth in the high-waste-potential consumption of staples (elasticity of demand in a ratio of 1.5 to 2.2).

The volume of waste is growing by 3 %/annum in Tunisia. Waste production and consumption are expected to rise, primarily in urban areas. In Morocco, waste of urban origin accounts for 5 MT of the 6.5 MT produced a mere 15 % of which is disposed of in official dumps.

The effects of urban growth rates of 0.7 %/yrs. in Spain and Greece and 3.6% in Morocco and Tunisia have varied according to the city, depending on its capacity to absorb the increased need for the infrastructure required by these basics services.

In the northern cities », the requirement to conserve resources and control the impact of the recycling and treatment industries within less dense urbanisation is being reflected in additional logistical effort, also taking account of the environmental constraints of treatment plants. However, the Naples rubbish crisis points to the fact that works on this front is still in progress.

In the southern », cities outskirts are mostly made up of informal settlements making difficult basic services delivery. The main issue in the southern cities still remains given access and maintaining a decent and healthy living environment.

Giving access and maintaining a decent and healthy living environment is still the main issue in the southern Mediterranean cities.

## **Ecological challenges:**

Growth prospects of Mediterranean cities are just prefiguring a worsening of current problems already worrying: excessive land consumption (land artificialisation, irreversible loss of arable land); more rapid degradation of architectural heritage; aquifer pollution; inefficient waste management and the cumulative effect of all these factors on the environment and human health.

- Coordinating the various scales of water cycles

### **➔ *Mastering dependency on distant water resources***

In several Mediterranean countries, some of the water supplied to the coastal regions, particularly for drinking water in the big cities but also for irrigation, now comes from non-sustainable sources: over-exploitation of coastal groundwater, hence the risk of salt water intrusion (Spain, Gaza, Tunisia, etc.), or water transfers from the mining of non-renewable resources outside the Mediterranean basin (Libya).

Local water resources in the coastal regions- groundwater in particular- are shrinking and their quality is deteriorating under the impact of urbanisation (fewer inputs, drainage effect due to underground urban development, various types of pollution, etc.) and, in the longer term, the effects of climate change. Rising sea levels could lead to increased salination issues in estuaries and the appearance of saline wedges.

In the coastal regions, water abstraction currently exceeds local natural renewable resources (not to mention exploitable resources) in most of the southern and eastern countries. Water demand in these countries is partly met by bringing in water from the hinterland, as is the case in Athens, Marseille, Tel-Aviv and even Tripoli, or by using non-conventional water resources as in Algeria, Spain, Israel, Cyprus and Tunisia.

### **➔ *Reducing pollution at source by giving priority to territorialized approaches***

The assumption often adopted, of a scale economy allowed by a single urban network of distribution and discharge, is not necessarily true, especially in view of the energy costs associated with water circulation within the network, even where the topography allows for a gravitational system.

Mixing flows of different qualities also tends to make joint management more complicated and therefore more expensive (domestic sewage and storm run-off, joint treatment of grey and black water, etc.). The financing of such investments along with the associated running costs and their impact on the water bill raise major social issues as far as public policy and spending are concerned.

Increasing amounts of money are being invested in treating pollution once it has re-entered the aquatic environment (so-called «end of pipe technology» solutions). These environmental engineering approaches often preferred to territorial approaches able to reduce pollution at sources have an increasingly limited effectiveness. Wastewater treatment must therefore be brought into general use, techniques and scales economies varying according to population density, land pressure, etc.

- Anticipating the coming energy transition

Energy is one of the factors which determines the increase of growing urban ecological footprints, air pollution and, more generally, environmental degradation. Cities are by definition, key point for energy consumption. In the SEMCs in particular, the «fossil» dependency of countries and therefore of cities has reached 90%. The growing consumption of oil products remains closely tied to the development of the transport sector. The increasing production of electricity from fossil resources (particularly gas) in response to growing demand for electricity driven mainly by heavy use of electrical equipment is a clear trend set to continue in the SEMCs over coming years.

These developments must be seen, however, against a depletion of fossil resources in the medium term, along with a re-distribution of these resources. Within this context, the use of renewable energy and demand management policies are ways of already anticipating the coming energy transition by furthering the use of local resources in line with territorial needs. The implementation of these orientations based on urban and land planning policies should require an enhancement of local management authorities as well of their staff's skills.

➔ *A preponderance of cities in total energy consumption*

The SEMCs are experiencing a rapid urbanization which is generating a huge demand for housing. Experts predict that by 2030 almost 42 million additional homes will be needed, mainly in the cities. Under the combined effect of demographic pressure and economic growth, the Mediterranean is expected to see a sharp rise in energy demand, which is set to multiply 1.5-fold by 2030. Some 60 to 70% of final energy consumption will be in the residential and tertiary building sectors.

Demand is expected to rise 4 to 5 times faster in the SEMCs than in the countries to the north, to account for over 42% of the Mediterranean Basin's energy demand in 2030 as compared with 30% in 2007. Moreover, SEMC energy dependency increases gradually over time, pointing to inevitable tension in the future. Given the circumstances, it will be a real challenge for the SEMCs to meet this growing demand in the future, and one requiring heavy investment. Developing infrastructure, electricity and natural gas supply networks and renewable energy installations from a sustainable development perspective should help towards meeting the targets set out in the MSSD. These investments will partly support the network infrastructure generated by urban projects. It should also allow local experimentation where energy issues are closely tied in with the scale of urban projects, on both the supply and the demand side.

Rolling out such steps on a wide urban scale will require the industrial supply of material and equipment, appropriate technical engineering skills and associated energy services. This should probably structure and strengthen large parts of the building industry on a local level, which will require some anticipation on skills training as well as on manpower management.

The construction of large amounts of housing also provides an opportunity, on an appropriate urban scale regarding associated energy issues, to produce buildings aimed at establishing a sound balance between local resources and needs.



- Developing strategies for climate change adaptation

The Mediterranean region is exposed to many major hazards. It is particularly vulnerable to meteorological events, most specifically earthquakes, the consequences of which are magnified by the concentrated nature of cities. Highly densely populated areas of informal housing are thus particularly vulnerable to the natural hazards of earthquakes, floods, landslides and forest fires. Catastrophic floods triggered by the Mediterranean climate's sometimes violent rainfall and aggravated by deforestation, land artificialisation and hillside construction constitute a major risk for many Mediterranean cities in Algeria, Spain, France, Greece, Italy and Turkey.

The historic vulnerability of Mediterranean cities is further increasing as a result of climate change. The Mediterranean is one of the regions of the world where the effect of climate change on the environment and human activities is expected to be most felt. Average rainfall is expected to decrease throughout the Mediterranean basin and extreme events to occur more frequently by 2100 (sharp increase in heat waves and continental drought).

Coastal zones both north and south of the basin are some of the most vulnerable areas in the Mediterranean, along with areas of surging population (southern and eastern banks) with dense cities and suburbs.

Mediterranean cities, which produce fewer GHG emissions but are yet more affected than other regions of the world, are particularly concerned by developing climate change adaptation strategies.

## **Democratic challenges:**

Governance in the South and East of the Mediterranean's cities is marked by the predominant role of State, persistently strong administrative centralisation and limited autonomy at the intermediate levels. The quality of the local democratic process (urban governance) is a key to effectively steering urban development along a more sustainable path.

- **Consolidating local urban management**

In most countries, States are predominant in urban planning and management. Where these competences have been devolved to the local authorities, the division of responsibility sometimes remains unclear. Means for coordinating territorial and sectorial public policies yet to be invented, involving all local stakeholders.

➔ ***Helping to improve governance of vast interdependent urban areas***

To the South and East as well as to the North, urban sprawl spills over administrative boundaries and has the effect of dissociating administrative organisations from the area in which they effectively operate.

Unclear division of competences along with institutional rivalry may trigger area competition between institutions and undermine the coherence of public action. In most cases, the setting up of independent agencies responsible for implementing territorial projects does not strengthen conventional administrative structures. Many coordinating bodies lack adequate supervisory powers to allow them to mediate.

➔ ***Helping the regulation of the private sector contributing to urban fragmentation***

To the South and East, technical capacity within the cities is being hampered by the lack of attractiveness of the civil service and the fact that urban engineering is diluted over a multitude of public and private institutions. This undermines technical capacity within the cities, resulting in predominantly operational approaches and limited regulation of the private sector. Where they do exist, urban planning exercises are often inoperative and not widely respected. The inability of the public authorities to meet demand for housing, which is constantly buoyed up by urban growth, has allowed investors and developers to emerge in most Mediterranean cities, offering out-of-centre residential quarters with better quality of life in secure, fenced-off areas.

Mostly resulting of land opportunities (changes in zoning status of farming land, public land sales) rather than strategic land planning exercises, projects tend to be large-scale. Their size sometimes grants them national project status, thus overriding local urban leadership where it exists and ensures a strong support from central authorities.

Projects once implemented coexist with their initial environment without any real links and in some cases may even be intentionally separated from it (« gated communities » and other patrolled condominiums). They foster urban fragmentation and fail to foresee the environmental and social impact of their development.

- Integrating informal sectors in urban policies

With not enough jobs being created, informal work ensures the survival of millions of people (about 30 % of the urban working population in Turkey, 45 % in Egypt and Tunisia, 40 % in Algeria and Morocco). Besides the over-densification of old housing districts, in many Mediterranean cities (in Egypt and Morocco for example), causing the degradation, of it the mismatch between urban population growth, housing supply and real estate availability have forced many new arrivals or city-dwellers to resort to the informal sector. This has encouraged cities to spread in unregulated, unstructured and indecent way, in the absence of essential amenities. The emergence of entire urban areas with inadequate facilities has led to a socio-spatial segregation by creating pockets of poverty (slums).

Tunisia was without a doubt the first to recognise the problem, taking steps from the early 80s to overhaul all its «gourbivilles», providing amenities and integrating them within the surrounding city. Morocco has launched its “Villes sans Bidonvilles” plan, for which the INDH (National Human Development Initiative) provides the operational framework. Yet public anti-shanty town measures only address those living in the cities (illegally), doing little to pre-empt the growth currently underway.

As far as urban transport is concerned, specialised sectors of urban transportation (school, university, administrative and private) are growing in response to the shortcomings in conventional collective supply. As a direct response to daily mobility needs, they are in direct competition with public transports. Owner-driver transport systems, collective taxis and minibuses are also some of the main forms of the urban transportation supply. They are expanding as cities and urban areas spread, where institutional services are not able to keep up with the changes in demand. Backed by private investment and creating a wealth of jobs, this socio-economic sector is of crucial significance. These situations complicate the coordination of operators and are hindering the development of a comprehensive transportation supply integrated on a city-wide scale.

Finally, as far as waste collection and treatment is concerned, the responsiveness of the informal sector allows the provision of essential services but in the most lucrative areas. As the only means of subsistence for many, it provides a service of limited volume. Extending these services to “all coming materials” and in some poor areas remains difficult. It

- Involving residents and users in planning and urban project design

While this obviously depends very much on the political and cultural context of each country, the involvement of citizens and more generally of civil society (companies, associations, etc.) in defining needs- central to sustainable development principles- is still not particularly widespread in Mediterranean cities. It has become clear from several operations that a mismatch exists between the response provided and the (un)expressed needs of un-consulted citizens.

The initial failures of the social housing schemes in Tripoli (Lebanon) and elsewhere and the steady rate of residential mobility serve as a reminder of how important the ownership by the inhabitants of the places are for the continuity of the projects. However, Idmaj Sakan’s construction of multi-family houses in Casablanca along with other innovatory social housing projects in Egypt point to a recent awakening amongst operators to the need to look beyond the outward appearance of buildings and also take account of the crucial role of public areas and amenities as well as shared management for running the installations.

## Prospects

Several projects advertised as "eco-districts" or "sustainable districts" have emerged over the past four years in the countries to the south of the Mediterranean and the Arab world more generally. Many more sustainable urban development projects are underway in Morocco (Anfa, Zenata, Bouregreg, etc.) and Egypt (Parc El Aznar, etc.). Making its appearance in 2006, Masdar in Abu Dhabi is definitely the first indication of this new type of space. This attempt to establish a "zero carbon" city reflects to some extent the importation of modern international urban planning standards marked by new environmental concerns.

As far as urban transport is concerned, the Algiers metro, the extension of the Cairo metro, Istanbul's rapid transit links and the tramway projects in Morocco and Tunisia are the result of public policy for the development of collective transport. These examples illustrate an awakening on the part of the public authorities to urban mobility issues. Yet examples of integrated transport/urban planning approaches are few and far between. More often than not, public and private stakeholders are guided in their action by operational reasoning relating to operators' implementation constraints rather than territorial concerns. This is reflected in the importation of generic, clearly car-dependent urban products.

Finally, innovatory practices are now emerging, aimed at preserving and better managing water resources in Mediterranean cities. These include the reuse of wastewater (recreating its « value »), alternative rainwater purification techniques using local infiltration rather than out-of-town disposal and decentralised treatment techniques, particularly in areas with low population density. The «urban water demand » management already being applied in some cities, reducing per capita use in Tel-Aviv and Tunis, for example, is helping to limit water-related tension and increasing the number of users served without adapting network size.

Initiatives such as these, of various types and scales, are indicative of the gradual awakening of Mediterranean decision makers to sustainable urban development issues. The Euro-Mediterranean Sustainable Urban Strategy is intended to back up and support these significant developments, building in particular on the strategic approaches already being deployed in each of the countries concerned.

A strategic framework exists in the member states of the European Union for public sustainable urban development policies:

- The Charter of European Cities towards Sustainability (Aalborg 1994 and Aalborg+10 2004),
- The EU's Territorial Agenda and the creation of a reference framework for sustainable cities,
- The Leipzig Charter (2007).

National sectorial strategies exist in the countries around the Mediterranean. Some of them have adopted national urban development plans or strategies (Plan Ville Durable in France, National Urban Development Strategy (SNDU) in Morocco). At regional level, the Mediterranean Strategy for Sustainable Development (2005) includes a section on urban areas. Building upon this, the drafting of a Euro-Mediterranean Sustainable Urban Strategy (EMSUS) under the UfM's aegis, which could draw on the existing (and growing) European reference framework, should be in a position to address the three-way demographic, ecological and democratic challenge faced by Mediterranean cities.

### ***Sources:***

Skhirat regional seminar, DGCL Maroc, World Bank, AFD, MEEDDAT, Ville de Marseille, CODATU, Plan bleu (2008) Urban Transport in the Mediterranean, Guidance and recommendations.

Mediterranean Action Plan (2005) Mediterranean Strategy for Sustainable Development

Plan Bleu (2005). A Sustainable Future for the Mediterranean: Plan Bleu's Environment and Development Outlook, led by G. Benoit and A. Comeau. Éditions de l'Aube. « Urban Areas » chapter, pp. 198-246.

Chaline C. (2001). Urbanisation and town management in the Mediterranean countries. Assessment and perspectives for sustainable urban development. Plan Bleu report.

UN Habitat. State of the World's Cities: Harmonious Cities 2008/2009 World report.

Migration and Climate Change, research N°31, Oli Brown, International Organisation for Migration (IOM).

Urban Mobility and Sustainable Development in the Mediterranean, Regional Diagnostic Outlook, S Houpin, Plan Bleu, April 2010.

Plan Bleu Papers N°6 (March 2010), "Infrastructure and Sustainable Energy Development in the Mediterranean: Outlook 2025"

Plan Bleu, ongoing 2010, "Energy, Climate Change and the Building Sector in the Mediterranean: regional prospects", with EIB backing.

Plan Bleu (2010): rapport de stage Master II, Amandine GNONLONFIN- Déchets et flux de matières en Méditerranée

Plan Bleu (2010): National study on waste management in Egypt

Plan Bleu (2011): report requested by the EIB: Identification de critères de mise à l'examen de projets urbains durables dans le cadre de l'Union pour la méditerranée. Sylvain Houpin, January 2011