

MOHAMMED TAWFIK MOULINE

Director General of the Royal Institute of Strategic Studies, Kingdom of Morocco

Thank you Mr. President.

From my side, I am going to try to deal very briefly with the energy and environmental challenges faced by the Mediterranean and I will explain why the Mediterranean. But as an introduction, I would like to emphasise the fact that we live in an increasingly complex globalised world in which countries are interdependent, in which markets are global and facilitate the spread of crises and in which environmental, energy, financial, economic and even food problems are really interconnected. Hence the need for appropriate world governance to deal with these crises which, because of their international dimension, require a global and regional response.

There is great uncertainty surrounding the world energy situation and the global environmental balance. For a start, world energy demand is continuing to rise, in line with the growing needs of developing countries. According to the International Energy Agency, demand for energy is expected to rise by 1% per year. In the Mediterranean region, the growth rate is significantly higher.

Apart from the fact that the rate of growth in energy consumption is unsustainable in the long term, the natural resources of the world's energy supply are unevenly distributed geographically, which quite obviously creates sharp tensions. In addition, there are great uncertainties about the effective levels of world reserves in fossil fuels, notably oil, although the latest geological studies concur that "peak oil" will not be reached before 2015.

As regards the environment, there also, the world ecological footprint exceeds the biocapacity of the planet. Humanity is using up more resources than nature can provide. Biodiversity is in net decline. Within thirty years, we have lost more than 30% of the world's biodiversity. The vertebrate population has fallen by 40% and desertification is expanding at an accelerating rate. It could even reach 70% of the earth's surface by 2030. The disturbances in the world's natural systems, particularly climate, have resulted in the exacerbation of extreme events: catastrophic floods in Pakistan, devastating fires in Russia and a rise in aridity and desertification in Africa.

Today, we are witnessing the rise of a worldwide awareness of the need to rebalance development models. However, a firm international commitment is slow to appear as shown by the low-key results of the Copenhagen Summit in December 2009.

The Mediterranean typifies the main energy and environmental issues of the world, and therefore offers a regional analytical framework that overlaps at national and world levels. This framework is relevant for the analysis of interdependencies and interrelationships between national policies and their coherence with the world effort. In addition, the Mediterranean region includes both developed countries and developing countries with obvious complementarities and a common destiny. It is also a region that is planning to launch joint horizontal projects, such as the environmental projects within the framework of the Union for the Mediterranean, despite the political constraints to constructing global governance on the scale of this region.

Before touching on the energy requirements of the Mediterranean, I would first like to put the Mediterranean into its world context. This region has 7% of the world's population, represents practically 15% of world GDP, accounts for 40% of international tourist arrivals in the world, 30% of international sea freight, hence the benefit of a pollution-free



Mediterranean, 28% of world oil traffic, 8% of energy consumption and 8% of CO2 emissions. The Mediterranean is a major reservoir of marine and coastal biodiversity, with 28% of endemic species and 7.5% of the world's marine fauna and 18% of its flora. It represents 10% of plant species in an area of only 1.6% of the earth's surface. So it is an echoregion by excellence.

The energy needs of the Mediterranean are very large, especially those of the countries in the south and east of this region. The latter are experiencing very high growth rates in energy demand, so much that by 2025 they could reach a level of consumption that would almost match that of the European Union. In addition, their energy dependency would grow, despite the fact that some southern Mediterranean countries are oil and gas producers. In the scenarios that have been produced for 2025, it is forecast that the region's energy mix would still be dependant on fossil fuels, with a renewable energy contribution of between 6% for the scenario based on current trends and 14% for the pro-active scenario.

It is a region for which the scenarios of the IPCC predict an increase in temperature, by 2100 in relation to 1990, of between 2.2 degrees and 5.1 degrees, significantly higher than the world average. In rainfall, the drop would be sharp. Forming part of this region, Morocco is also bearing the brunt of the consequences of climate change. The rise in temperature would be between 3 degrees on the Atlantic coasts and 6 degrees within countries, with a drop in rainfall that could reach 50% in some regions of Morocco.

The effects of climate change are likely to be very great for the whole Mediterranean region. One thing I would like to stress is the fact that the biodiversity would come under severe pressure, as 19% of species are threatened with extinction, 5% are critically endangered today, 7% are endangered and 7% are vulnerable.

In terms of water, the consequences would be very significant. At present, the Mediterranean region only has 3% of the world's resources of water but 7% of the world's population, with varying consequences for availability of water per inhabitant depending on the country. These consequences would be severe in the scenario of inaction. Some countries will even have reserves of water, but that would not exceed 100 cubic metres per inhabitant per year by 2025.

The questions of water and energy are really interconnected at the level of the Mediterranean region. Indeed, it would be necessary not only to mobilise energy to meet the needs of development and economic growth, but also to give all populations access to drinking water. Also, the blue plan forecasts that by 2030 the water sector would absorb 15% of electricity generated against only 9% today. Energy and water are, moreover, fundamental in the sense that no credible energy policy could disregard the central question of water.

The points made in the above assessment are an urgent call to Mediterranean countries to become actively involved in producing adequate responses to the energy and environmental challenges. These responses must necessarily be based on the principle of sustainability. To this effect, special attention should be given to the following three central points:

Make the energy-environment combination the central plank of a coordinated regional policy

The Mediterranean energy policy should be designed using an integrated approach, stressing a reduction in the effects of climate change and taking into account water needs. This policy should be structured around three fundamental priorities:

- energy efficiency; the potential gains could be between 25 and 30% of demand today;
- the development of renewable energy; there is huge potential for solar and wind energy, especially in the south of the Mediterranean;



a culture of energy saving instilled at community level.

Mobilise synergies to preserve the natural resources of the region and adapt it to the climatic constraints

To face up to the environmental constraints effectively, the Mediterranean region should not only encourage policies to alleviate climate change, but also resort to innovative policies for adapting to it. In this regard, urgent actions should be envisaged to:

- reinforce climate observation networks and their interconnection within the region.
- develop a natural disaster and pollution early warning system, especially in countries in the south and east of the Mediterranean.
- promote joint areas for the protection and conservation of species, while increasing the effort to rid the Mediterranean of pollution.

As an illustration, the development of nature reserves in the south of Morocco could not only help slow down the spread of aridity in the north of the country, but also protect the south of Spain. Hence the benefit of neighbouring countries collaborating on climate and the need to encourage initiatives by NGOs and raise awareness of the effects of climate change.

Strengthen mechanisms for funding and transferring technology

The actions mentioned above should be delivered by appropriate funding and technology transfer mechanisms. In this regard, it would be advantageous to create a Mediterranean environmental fund to be used to bolster the capabilities of the most vulnerable countries to adapt to climate change. Indeed, there is no denying that countries which suffer from climate change but are not responsible for it are today those which do not have the capabilities needed for adaptation.

In addition to funding aspects, regional cooperation would benefit from being centred on the transfer of know-how, skills and technology, aimed particularly at laying the foundations of a green economy in the Mediterranean region and thereby enabling it to maintain its status as an eco-region. To encourage research and development activities in the environmental field, European-Mediterranean poles of competitiveness, clusters and centres of research must emerge in buoyant sectors, renewable energy in particular, which are relatively prolific job creators.

Before finishing my speech, I should point out that Morocco, aware of the importance of issues associated with climate change, has made clear commitments in favour of sustainable development. It has begun to draft a charter of the environment and sustainable development, described by His Majesty the King as being part of the Morocco's plans for social change and as a foundation stone of the country's public policies. Moreover, Morocco is in the process of embarking resolutely on the path towards energy efficiency. In addition, it has just established an agency for energy efficiency and renewable energy development and has launched a major solar energy project to produce 2000 MW by 2025, which will be integrated into the Mediterranean energy system.

Thank you for your attention.