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European Union, Mediterranean region and energy issue

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Abstract

The energy issue is an essential factor of economic development. Moreover, since the World War II, it is one of the bases of European Union political genesis. Nowadays, the debate about the cooperation process between European Union and Mediterranean countries is partly focused on the energy issue. On the one hand, European energy dependency is raising, on the other hand, most of the Southern and Eastern Mediterranean countries are economically dependent on their hydrocarbon exports. In this context, a new European energy policy emerged in the 90's structured by three main principles:

- energy dependency requires to diversify the geographic origins of the energy imports;
- renewable energies have to be developed due to the environmental issue and to the increasing prices of fossil fuels;
- create an European energy market, which could become an Euro-Mediterranean one.

These elements lead to the emergence of a new cooperation between Europe and the other Mediterranean countries. The Euro-Mediterranean Partnership project launched in 2007 could be a political framework able to facilitate this new form of governance. Energy issue is a pertinent thematic to analyse territorial coherence and stakes of sustainable development in the Euro-Mediterranean region.

In the first part, we will demonstrate the historical role of energy issue in European Union emergence. In the second part, we will present European initiatives in energy area which tend to include the other Mediterranean countries. Finally, we will discuss about energy stakes in the region and territorial differences between northern and southern coasts

Key-words: Energy issue, Energy policies, Sustainable development, Europe, Mediterranean region, Barcelona Process: Union for the Mediterranean.

Introduction

Energy represents one of the bases of the European Union construction since the end of the World War II, and is today in the middle of the Euro-Mediterranean cooperation. In a context of fossil resources depletion and energy consumptions increasing, the energy interdependence between Mediterranean countries is more and more obvious. The hydrocarbon reserves of the North Sea become exhausted quickly, while the economies of the Southern and Eastern Mediterranean countries (SEMCs) depend mainly on the receipts oil and gas exports. Structural deficit of energy offer and European dependence on external suppliers, Mediterranean or not, caused partly a political reactivation of the process of cooperation within the Euro-Mediterranean region, in order to diversify the energy provisioning and to manage in the long term the energy market safety. The Euro-Mediterranean political framework, outlined since 1995, saw its energy dimension reinforced because of the new European policies since the end of the 1990s. If the concerns are directed fossil energies, renewable energies, solar one in particular, have to play in the future a more important part in the construction of a Euro-Mediterranean energy partnership.

The Mediterranean Solar Plan was announced on 13 July 2008 at the Paris Summit for the Mediterranean region in order to develop renewable energy production, in particular solar technologies, on the southern side of the Mediterranean. Main objectives are, on the one hand to encourage the local production in order to satisfy demand at local level, and on the other hand, to increase export to Europe and consequently to diversify the European energy consumptions. These prospects would require a technology transfer to the South. The EU having any interest to support the development of this type of energy: to achieve its ambitious goals of reduction of greenhouse gas emissions, in the one hand, and to increase proportion of renewable energies in its consumption, on the other hand.

Between environmental urgency and energy supply acuity, construction of a Euro-Mediterranean energy area seems a possible and relevant way of regional dialogue. The energy interdependence of the Mediterranean countries could then evolve to a cooperation articulating Community concerns and individual ambitions of the States.

In the first part, we will demonstrate the historical role of the energy issue in the European Union emergence. In the second part, we will present the European initiatives in energy field, which tend to include the other Mediterranean countries. Finally, we will discuss about the

energy stakes in the region (consumptions, productions, supplies and dependences) and territorial differences between northern and southern coasts.

1. European construction and energy

1.1. The beginnings

Energy field always constituted a discussion thread to all the treaties and process of European political construction. As Keppler (2007) affirms: “The founding fathers of modern Europe had understood that the Union would be a union of energy or would not be”.

Thus, the first step of the European Union was the signature of the Treaty of Paris on 18 April 1951 which established the European Coal and Steel Community (ECSC) “*based on a common market, common objectives and common institutions*” (article 1). One of the objectives of this treaty was to create a convergence of interests between ex-belligerents through raw materials (coal and iron ores) necessary to the rebuilding and to the economic dynamism after the World War II.

The second European Treaty directly relating with energy field created the European Atomic Energy Community (Euratom). It was established on 25 March 1957 along with the European Economic Community (EEC) by the Treaty of Rome. Euratom directly integrated economic and political dimensions of the energy question in the construction of a supranational entity. With a civil and peaceful vocation, it was thought like the tool which can make possible the reduction of the European energy dependence in a context of oil consumption increase and of geopolitical instability to the Middle East (Crisis of Suez of 1956).

1.2. The new energy policies in Europe

The permanent tensions on the energy market - prices hike, anticipation of “peak oil”, energy supply problems, geopolitical situation in the Middle East, Central Asia and Latin America - cumulated with increasing environmental concerns - Summits of the Earth in Rio de Janeiro

in 1992 and Johannesburg in 2002, Protocol of Kyoto in 1997 (Lamy, 2006) - considerably reinforce the energy question within the Community policies since the 2000.

Facing this reality, the European Commission Green Papers on energy in 2000 and 2006 begin debate and ring the alarm bell about the European energy dependence and its impact on the economic growth. Green Papers propose priority areas in order to overcome the structural deficit of the energy production in EU; all the more deficit will be increasing because of European Union expansion, which will integrate countries more consumers than energy producers. Energy dependence on imported energy was evaluated in 2000 to approximately 50% of the European requirements - figure which could reach 70% by 2030. In 1999, "it costs the Union some EUR 240 billion, or 6% of total imports and 1.2% of the GNP" (Commission of the European Communities, 2000).

The European strategy to reduce the dependence, or all at least to maintain it on a reasonable level, rests on two objectives: on the one hand, an action on the offer by diversifying the various sources of supply (by product and by geographical region), and developing endogenous energies, of which renewable energies and, on the other hand, policies to control consumption (change of the behaviors). In addition, the establishment of a common and concerted policy is now in question: to harmonize practices in EU, to reinforce Union's influence on the international scene in negotiation about energy field, in particular in event of crisis or increased tensions on the markets. The structural weakness of economic and political pressure at the international scale, as well as the absence of common instruments, increase EU dependence and vulnerability in the strategy for security of supplies, more especially as "the risk of rupture of the international supply, [in particular] oil ones, certainly increased these ten last years" (Noël, 2006).

Whereas the Green Paper adopted in 2000 underlines risks correlated with energy dependence (economic, social and environmental), Green Paper released in 2006 priorities action areas. The main objective is the construction of a European energy market, in order to guarantee the security of supply and to "ensures solidarity between Member States"; to diversify the energy mix by the development of renewable energy for "tackling climate change"; to encourage innovation; and to put in place a "coherent external energy policy" (Commission of the European Communities, 2006). Recognizing the decisive role of energy dimension in the process of European construction and in the strict continuity of the principles emerged during the preceding phase of consultation, the elements for a new "energy policy for Europe" were

presented in 2007 (Rosseti di Valdalbero, 2008). Beyond the main measure previously exposed, the objectives posted by the European Commission are particularly ambitious. At environmental level, “the European Parliament gave its backing to the EU's climate change package [in December 2008] to ensure that the EU will achieve its climate targets by 2020¹: 20% reduction in greenhouse gas emissions, 20% improvement in energy efficiency and 20% share for renewables in the EU energy mix¹ (European Parliament, 2008). One priority of the French EU Presidency was to manage an agreement between all Member States on these whole measures, before end-2008 (Delcour, 2008) and the United Nations Climate Change Conference in Poznań in 2008 and then in Copenhagen in 2009.

In foreign policy, EU has also large ambitions: creation or reaffirmation of the relations with bordering countries (Turkey, Ukraine); strengthening bonds with principal energy suppliers (Russia, OPEC, GCC², Central Asia countries or Brazil for biofuel); establishment of an African-European partnership on the energy field; and, finally, improvement of interactions with others world's largest consumer (USA, China, India). All these European provisions will have however to take into account past or in progress initiatives in direction of the Mediterranean countries, which take part of reorganization of the political and energy stakes on the Euro-Mediterranean partnership.

2. The construction of a Euro-Mediterranean energy partnership

2.1. The political framework: Barcelona Process

The Barcelona Process aims to establish a new relational framework between the European Union and Mediterranean countries. It constitutes the heritage of the political orientations followed by Council of the European Union, as well as the European Commission proposals in the beginning of the 1990s. Ratified in 1995 in Barcelona, the process then included the fifteen States of the EU, including three new members at 1st January 1995 (Austria, Sweden and Finland), and twelve countries of the Mediterranean region (fig.1).

1 Year of reference for reductions remains to be solved (it will be a priori 1990, as for the Kyoto Protocol).

2 The Gulf Cooperation Council (GCC) is an economic and political policy-coordinating forum for the six member states (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates).

Thus, this partnership concerned very heterogeneous States from the geographical point of view, with economic, social and political specificities.

Final Declaration of the Barcelona Euro-Mediterranean Ministerial Conference of 27 and 28 November 1995 establishes “a multilateral framework bringing together economic and security aspects and also comprises a social, human and cultural dimension”. Three keys sector composed the Euromed partnership. First focused on the emergence of “a common area of peace and stability” founded on the respect of human rights. The second insists on the creation of a “an area of shared prosperity” in the Mediterranean Basin, passing by the introduction of a free trade area, the development of an economic cooperation and “a substantial increase in the European Union's financial assistance to its partners”. Finally, the third sector concerns cultural, social and human exchange, with the objective to “bring peoples closer together, promote understanding between them and improve their perception of each other” (Council of the European Union, 1995).

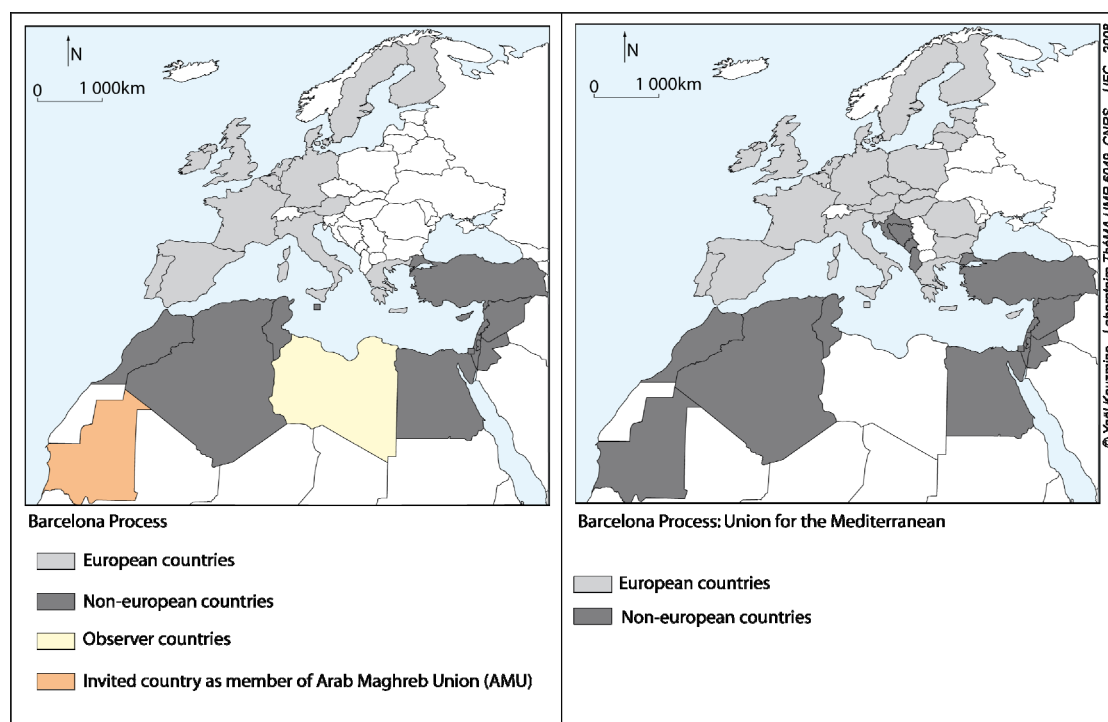


Fig. 1 *Evolution of the Euro-Mediterranean Partnership*

The Barcelona process allowed the constitution of an area for political dialogue between countries of the Mediterranean Basin. Periodic meetings of the Ministers for Foreign Affairs are organized, in spite of the very complex and tended geopolitical context in the region. Construction of this area of dialogue differs from the regional integration led in the Maghreb since 1989 (Arab Maghreb Union), which has never been really efficient (Troin and al, 2006).

According to a recent report, assets of Barcelona Process concern three fields (Mediterranean Institute, 2007). The first is the interest of non-EU Mediterranean Countries, of which Germany and of new Member States, for the political process, but also for the economic potential. Second point is the evolution of institutions “which seems irreversible” in SEMCs. Finally, on the security aspect, fight against traffic and terrorism, cooperation was reinforced significantly within Euro-Mediterranean partnership.

Nevertheless, beyond the construction of a political exchange framework and in spite of number assets, the results are thin regarded as ambitions posted in 1995. Indeed, the North-South economic divide is still relevant today. Disparities, as regards of richness creation, remain significant. The average GDP per capita in Europe were established in 2005 to EUR 28 300, and was only of EUR 8 733 for the whole SEMCs, and even lower if Israel is exclude. Thus, in spite of the integration of SEMCs into the global economy, the economic growth differences and social change between countries and within the Mediterranean countries are still present. During the period 2000-2006, the average economic growth at 4% in the EuroMed zone “was not sufficient to reduce the structural deficit” (Bauchard, 2008). Moreover, relative weakness of direct investments abroad, which move mainly towards the “traditional income sectors” (real, oil and tourism), did not allowed a total economic convergence of Euro-Mediterranean space (Beckouche and Guigou, 2007). Finally, the relative share of the European investments in Mediterranean space decrease then, at the contrary, the United States and the Gulf States tend to intensify their investments.

The economic divide also results in unemployment variations between North and South of the Mediterranean. The rate within the UE-27 reached 7.1% of the population in 2007, whereas it can exceed 10-15% in certain SEMCs. In addition Alain Le Roy (2008), quoting OECD, estimates that “considering demographic pressure in the southern shores of the Mediterranean, it would be appropriate to create approximately 40 million jobs in the fifteen next years, to maintain the same employment rate”. Taking into account demographic situation and economic growth, economic situation will probably not improve radically in the long term.

Concerning cultural and human exchanges, access to Schengen space becomes more and more difficult. Mobility between Mediterranean shores, in particular South-North influx, is not so easy, in spite of historical regional interactions. This aspect confirms the functional non-integration between Europe and “its South”.

On the political level, in spite of significant evolutions and institutional reforms, the great majority of the SEMCs remains controlled by authoritative regimes, not very inclined to a real democratic opening. On the other hand, the area and its peripheries directly undergo the multiple consequences of 11 September 2001: Iraq conflict, bilateral American interventionism for prevention of terrorism, etc. (Noël, 2006). Detractors of the Barcelona Process moreover criticized the heaviness of the new institutions created and the lack of articulation with the European neighbourhood policy (Mediterranean Institute, 2007).

Thus, after ten years, the “multilateral framework based on a spirit of partnership” created to stimulate the emergence of a “common area of peace, stability and prosperity through the reinforcement of political dialogue and security, an economic and financial partnership and a social, cultural and human partnership” (European Union, 1995) in the Mediterranean Basin, did not bear its fruits. European voluntarism to cooperate with Mediterranean partners continues in 2000 with the adoption of the EU Common Strategy for the Mediterranean. This strategy “pursues cooperation between the EU, the Mediterranean region and Libya in a vast range of areas” (European Union, 2000a). If it does not propose new elements in the European action in direction of Mediterranean partners, this strategy confirms nevertheless the increase of political cooperation and economic exchange.

The relations between EU and Mediterranean partner countries on the energy field thus began formalized with the installation of the Barcelona Process in 1995, linked with the wish to found a free trade area in the Mediterranean Basin. The regular organization of Euro-Mediterranean ministerial conference on energy, as the creation of a euro-Mediterranean forum on this field marks the installation of a regional political dialogue on energy.

2.2. Union for the Mediterranean: new perspectives?

In the continuity of Barcelona Process, the project of Union for the Mediterranean (UFM), initiated and supported by the President of the French Republic Mr. Sarkozy and his special advisor Mr. Guaino, clearly aims to restructure cooperation in the Mediterranean. This project is based on the relaunch of regional political dynamics and a restoration of the strategic objectives with partner countries. Evoked by Nicolas Sarkozy in February 2007, the emergence of the UFM project at the end of the year 2007 was marked by the French

President speech in Tangier on 23 October 2007. President Sarkozy then did not hesitate to reaffirm that the future of Europe is played in South, and that “in turning the back on the Mediterranean, Europe would be cut not only of its intellectual, morals, spiritual sources, but also of its future. Because it is in the Mediterranean Basin that Europe will gain its prosperity, its safety, that it will find the Founding Fathers’ impulse”. Fifty years after the Treaties of Rome signature, and referring to the Europe Founding Fathers, the French President launches the concept of Union in order to build a new political experiment in the Mediterranean area. The reception of this proposal by the European countries was at the very least mitigated: Germany fearing the emergence of major divisions within the EU and, more prosaically, the exclusion of its companies of the process; Spain fearing Barcelona Process disappearance to which it particularly attached. As for the SEMCs, they “in their majority, expressed an interest for the project” (Bauchard, 2008). However, some reserves were expressed by Turkey which saw an attempt to impose a substitute on its request for EU adhesion (Schmid, 2008) and by Libya which, in spite of recent changes in the geopolitical plan (Saint John, 2008), perceived the project like a new form of imperialism and refusing the idea of an union with Israel.

These political criticisms led to a new formalization of the project in the Rome Call launched jointly by Spain, France and Italy on 20 December 2007. The Call stipulates that Barcelona Process and European neighbourhood policy “will remain central in the partnership between the European Union as a whole and its Mediterranean partners”, the UFM will have to “give them an extra boost seeking to complement and work in cooperation with all the existing institutions” (Présidence de la République Française, 2007b). Turkey and Croatia were assured that this new process should not interfere in the adhesion negotiations: the future Union for the Mediterranean is founded on a principle of cooperation and not of integration. The project receives the German approval after modification and a Franco-German agreement was signed on 3 March 2008, making possible integration of the whole European States in the project. This agreement opened the way with acceptance of the project by the Council of the EU now called: “Process of Barcelona: Union for the Mediterranean” (fig.1). Following the European Council of 19-20 June 2008, negotiations were engaged with all the countries called to be members of the UPM, “to preparing a joint declaration to be adopted at the Paris Summit for the Mediterranean on 13 July 2008” (European Union, 2008a) which gathered the whole candidates States. The objective is to find a “new shared governance” and “to increasing

solidarities through concrete projects of regional size” (Présidence de la République Française, 2008a).

2.3. Towards an institutionalization of the European energy partnership?

Since 2000, elements show the reinforcement of the Euro-Mediterranean interactions around the energy area. On 29 May 2006, the Council of the European Union approved the Energy Community Treaty. It aims to create an integrated market of energy, natural gas and electricity, between the EU, six Balkan countries, Bulgaria and Romania (then candidate countries for accession to the EU). Moreover, today, five States have the Observer status (figure 2). This treaty explicitly aims “to promote High-Levels of gas and electricity provision to all citizens based on public service obligations, and to achieve economic and social progress” in a context where the 1990s conflicts dismantled the distribution networks in Balkans. It also facilitates the energy opening-up of Greece, encouraging the “connections to Caspian, North Africa and Middle East gas reserves”, and includes a “the coordination of mutual assistance in case of serious disturbance to the energy networks or external disruptions” (European Union, 2006). Beyond, we can consider the intrinsic geopolitical aspect of the pipelines which can represent “the vectors of a mystic unit and peace” (Simonet, 2007) in this area.

In the energy field, this first cooperation extended to Mediterranean partners is registered in parallel of a “new Euro-Mediterranean energy partnership” inaugurated at the 5th Euro-Mediterranean Energy Ministerial Conference on 17 December 2007 in Limassol (Cyprus). The conference gathered 35 countries, including 24 Europeans, 10 Member States of the future Union for Mediterranean, as well as Croatia with Observer status; it should be noted the absence of Libya to the negotiating table, however major actor of gas and oil production in the area.

European Energy Commissioner Andris Piebalgs, with Ministers from the EU Member States and from the Mediterranean partner countries, endorsed the Priority Action Plan for Euro-Mediterranean cooperation. Three main areas was defined, “harmonization of energy markets and legislations”, promotion of “sustainable development in the energy sector” and finally development of “initiatives of common interest in key areas, such as infrastructure extension,

investment financing and research and development” (European Union, 2007). One of the main objectives of Limassol Conference is the development of infrastructures and networks for North-South and South-South supply. Thus, first partnerships aim a diversification of fossil fuel supplies and electricity supplies for the EU, and facilitating political dialogue and investments in the Mediterranean Basin. The UFM project in the energy field completes Energy community Treaty and Limassol Conference.

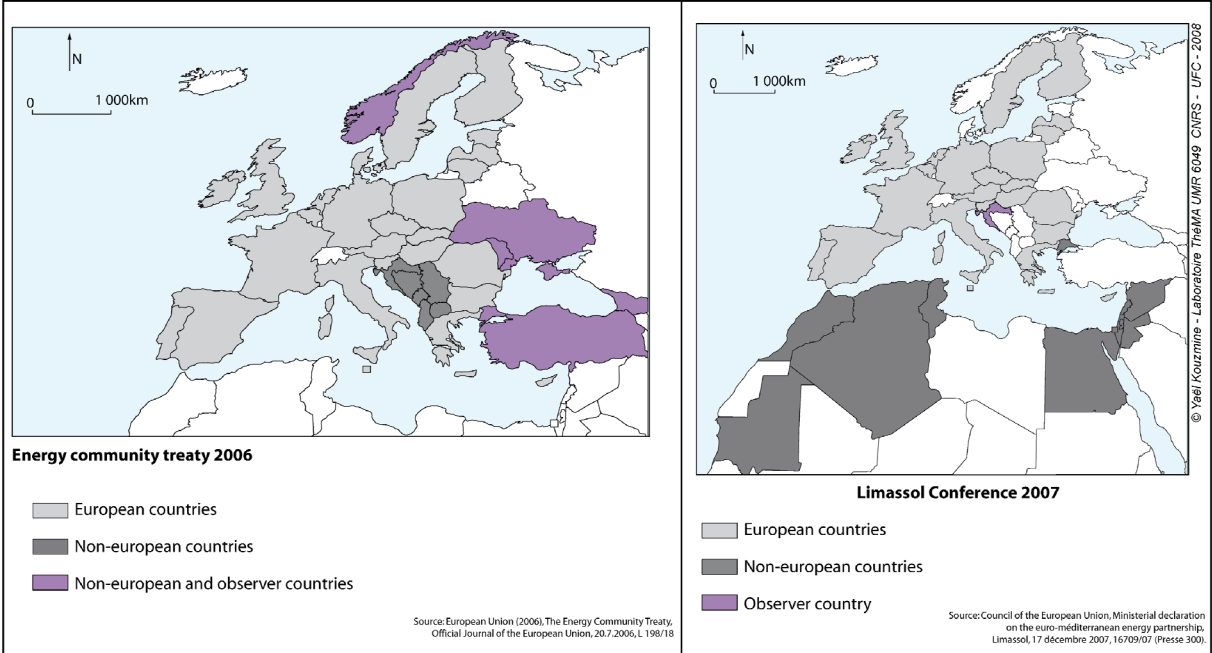


Fig. 2 *The energy issue and the EuroMediterranean Partnership*

Gathering majority of the States taking part in the preceding mechanisms, “Barcelona Process: Union for the Mediterranean”, also integrates energy under the priority fields of action. However, actions are not yet really clear, and at the present time we can only outline some elements relating to renewable energies. Thus, a “Mediterranean Solar Plan” was launched in 2008. It has three principal aims: to supply Europe in energy, to increase the production of a low-carbon electricity, to answer the consumption increase in SEMCs, taking into account the demographic and economic growth (Presidency of the French Republic, 2007). The project would make possible, on the one hand, preservation of the fossil reserves, and consequently perpetuation of export earnings for producer countries (Algeria, Egypt...) and, on the other hand, reduction of the energy dependence in the Mediterranean Basin, by supporting regional interactions. Moreover, development of a low-carbon energy in the Mediterranean Partner Countries exported to the North could allow the EU, not to achieve, but to approach the European goals of a 20% share of energy from renewable sources by 2020, as well as the Kyoto objectives. The real solar potential, although marginally exploited

at the present time, is nevertheless recognized (Harouadi and Al, 2007; Alnaser and Al, 2004) and could in the long term constitute a local and convenient resource to tackle energy demand increase in SEMCs.

However, if these elements propose an interesting prospective vision, the current energy system in the Mediterranean Basin remains founded on the massive use of fossil fuels. Interstate relations are largely based on this field. An analysis of dependences and interactions around energy within the Mediterranean Basin can partly explain the construction of a Euro-Mediterranean energy area.

3. Energy stakes in Euro-Med: North-South complementarities

3.1. Fossil fuels

Energy is one of the “key sectors” of the Euro-Mediterranean cooperation, because there is an “obvious complementarity between two sides of the Mediterranean” (Chevallier, 2008), in particular for fossil energies but also for renewable energies. Indeed, all the European countries are strongly or completely dependent on the hydrocarbon imports, except United Kingdom, Denmark and the Netherlands which are producer countries. On the other hand, North African countries are mainly exporters (fig. 3). This situation is all the more problematic as “even in the most optimistic conditions, Europe will have to buy at least 10 million barrels of oil and approximately a billion cubic meters of gas per day on the international market” (Keppler, 2007).

Although projections envisage for 2025 an energy growth rate “four times higher in the Southern and Eastern Mediterranean countries than in the North, linked with economic development and increasing population needs” (UNEP, 2006), principal poles of consumption are today mainly located in Europe. In 2007, EU countries accounted almost 95% of total UFM oil consumption and 90% of gas consumption; but produced 32,2% of total UFM oil productions and in 56,1% of gas (BP, 2008). Thus, even if the majority of the European countries do not have fossil resources, energy dependence of the EU is more related to the high level of consumption than to the low level of production.

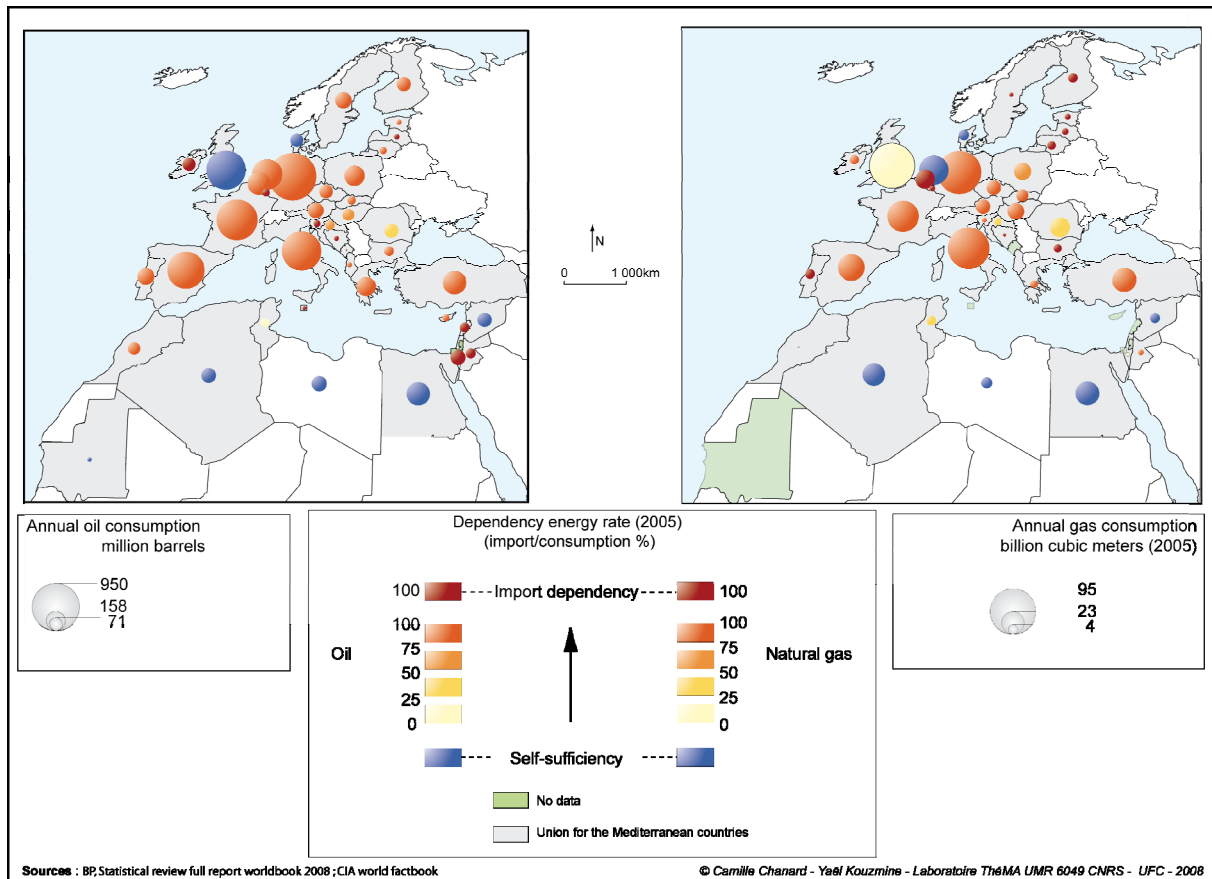


Fig. 3 *Energy interdependence in the Mediterranean Basin*

Indeed, sum of natural gas productions in the European Union is higher than the production in countries of Southern side of the UFM (191.9 against 129.5 billion cubic meters per day), while oil productions are almost equivalent (2 394 thousand of barrels per day for the EU, 2 808 thousand of barrels per day for the Mediterranean partners). But oil and gas European reserves, mostly in North Sea, are much less important than those of the South: 0,5% of world oil proved reserves and 1,6% of world gas proved reserves in 2007 are in UE, whereas it respectively accounts for 1,3% and 3,7% in the African part of the UFM. Moreover, we assist at the progressive exhaustion of European reserves. Exploitable gas reserves of United Kingdom, the most important EU hydrocarbon producer, passed 640 billion cubic meters in 1987 to 770 billion in 1997 (after new discoveries) and then fall to 410 billion in 2006. At the current rate, it remains 5.7 years after a stop of exploitation. EU gas reserves follow the same tendency (3 850 billion cubic meters in 1997 against 2 940 in 2007) and, at the current exploitation rate, fifteen years of production are estimated (BP, 2008).

Thus, dependence on South should increase, whereas question of durability and balance between consumption and production, which already arises today, will grow-up in the long term. Indeed, in the totality of the UFM countries, gas consumption accounts for 18.4% of

world gas consumption, for 11.6% of production and for 6.4% of proved reserves. This observation is even more alarming for oil: 18.9% of world consumption; 8.8% of production and 5.2% of world proved reserves.

We only considered in table n°1 UFM countries, but if Libya is integrated, balance changes considerably. Indeed, gas production is not very important (15.5 billion cubic meters), but more than half is exported to EU (Eurostat, 2008). Moreover, Libya is an important oil producer (2.2% of the world oil production). Sum of the Algerian, Egyptian and Libyan oil productions, represents twice the European production and cumulated reserves of these three countries, oil and gas, constitute almost twice the whole African reserves. On the whole, these three countries have approximately 5% of the world hydrocarbon reserves (BP, 2008).

| OIL in 2007 | production | | consumption | | proved reserves | |
|-------------------------------|------------------------|----------------|------------------------|----------------|--------------------------|----------------|
| | Thousand barrels daily | Share of total | Thousand barrels daily | Share of total | Thousand million barrels | Share of total |
| Total Middle East | 25176 | 30.8% | 6203 | 7.4% | 755.3 | 60.9% |
| Total Middle East without UFM | 24782 | 30.3% | 6203 | 7.4% | 752.8 | 60.7% |
| Total UFM Middle East | 393.9 | 0.5% | - | - | 2.5 | 0.2% |
| Total Africa | 10318 | 12.5% | 2955 | 3.5% | 117.5 | 9.2% |
| Total Africa without UFM | 5662.2 | 7.1% | 2034.1 | 2.4% | 59.1 | 4.7% |
| Total UFM Africa | 4655.5 | 5.4% | 921.1 | 1.1% | 58.4 | 4.5% |
| Total Europe (UE 27) | 2394 | 2.9% | 14861 | 17.8% | 6.8 | 0.5% |
| TOTAL UFM | 7443.9 | 8.80% | 15782.0 | 18.89% | 66.9 | 5.2% |

| NATURAL GAS in 2007 | production | | consumption | | proved reserves | |
|-------------------------------|----------------------|----------------|----------------------|----------------|------------------------|----------------|
| | billion cubic meters | share of total | billion cubic meters | share of total | billion cubic meters | share of total |
| Total Middle East | 355.8 | 12.1% | 299.4 | 10.2% | 73.21 | 41.6% |
| Total Middle East without UFM | 350.5 | 11.9% | 298.4 | 10.2% | 72.921 | 41.5% |
| Total UFM Middle East | 5.3 | 0.2% | - | - | 0.288 | 0.2% |
| Total Africa | 190.4 | 6.5% | 83.5 | 2.8% | 14.58 | 8.3% |
| Total Africa without UFM | 45.6 | 1.5% | 27.1 | 0.9% | 6.51 | 3.7% |
| Total UFM Africa | 144.7 | 4.9% | 56.4 | 1.9% | 8.07 | 4.6% |
| Total Europe (UE 27) | 191.9 | 6.5% | 481.9 | 16.4% | 2.84 | 1.6% |
| TOTAL UFM | 341.9 | 11.59% | 538.4 | 18.37% | 11.2 | 6.36% |

Source: BP, 2008, Statistical review of world energy
We consider that countries counted like "Other Middle East" and "Other Africa" in BP statistical don't participate in UFM (explaining differences in consumption).

Tab. 1 Oil and gas in the Euro-Mediterranean region

Considering natural gas more specifically, EU depends mostly on three supplier countries: Russia, Norway and Algeria (fig.4). Indeed, gas transportation by pipeline requires a relative geographical proximity and a geopolitical stability to allow the realization and the security of

infrastructures. This European dependence concerns and weakens importing countries as much as producer-exporter ones, which are competing and must be ensured the outlets for their production. For example, Algeria exports more than 60% of its gas production to Europe (BP, 2008; Remme and al, 2008) and 95% of his currency resources come from oil and gas. On another side, importing countries want to diversify supplier countries in order to safe their supply, “central factor for energy safety being the degree of diversity of the world offer” (Copinschi and Noël, 2005).

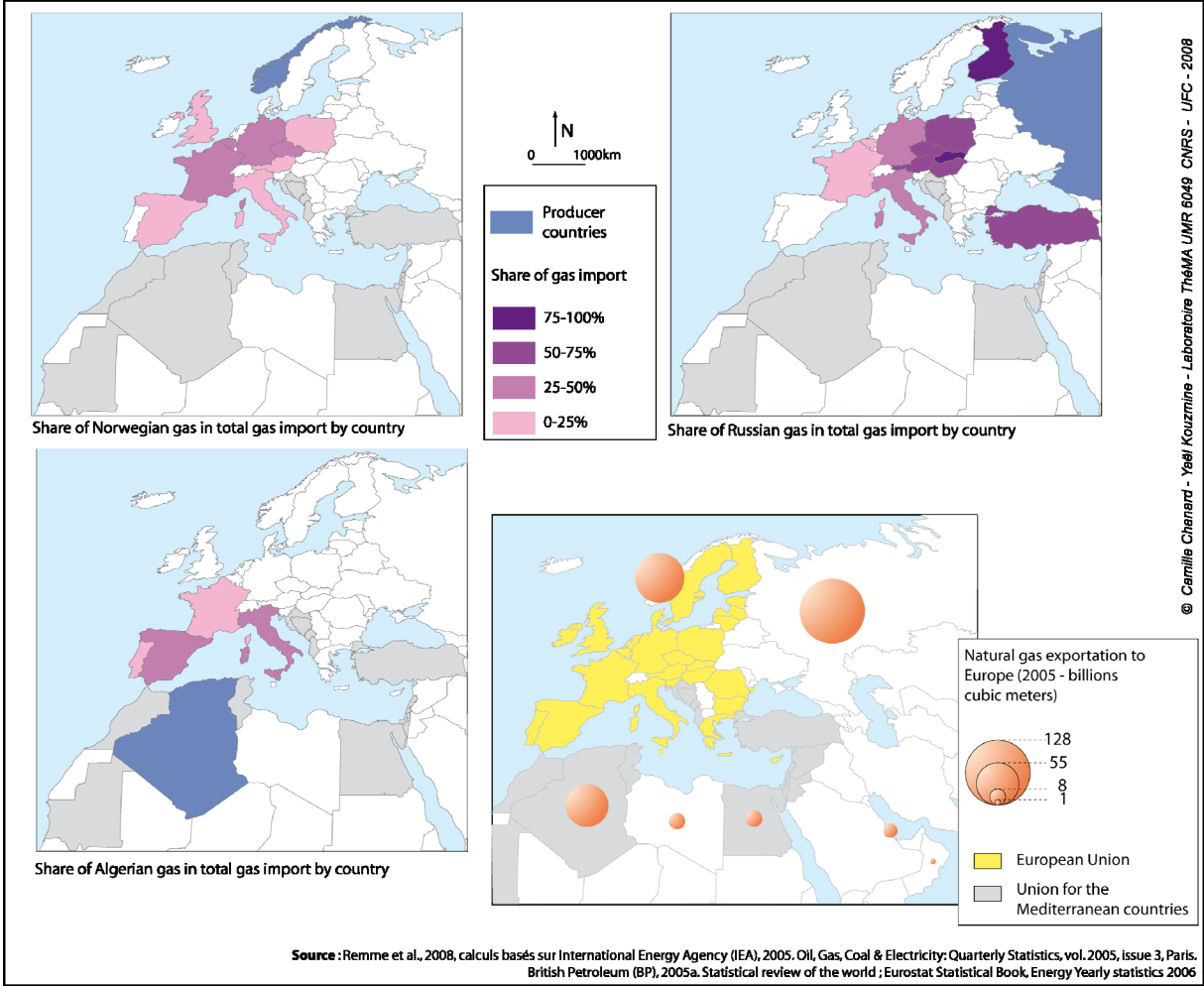


Fig. 4 *The European gas supplying*

In this context, Euro-Mediterranean cooperation should offer safety and diversity for European supply and guarantee outlets for Mediterranean gas. Several projects of underwater gas pipelines for connecting Europe to Africa are envisaged. Thus, the Declaration of the 5th Euro-Mediterranean Ministerial Conference on Energy (Limassol, 2007) proposes “to facilitate the financing of energy infrastructures and taking all appropriate actions in view of the realization of interconnection and infrastructures projects of common interest to the

region”. These projects include in particular the installation of Maghreb-Europe gas pipelines (GME, Medgaz and Galsi) and of a Trans-Saharan gas pipeline (TSGP) which would make possible Nigerian oil import for Europe via Algeria. If the Nabucco gas pipeline project succeeds, Qatar, probably Iran and Caspian Sea could become, in the long term, major suppliers of the European market (fig. 5).

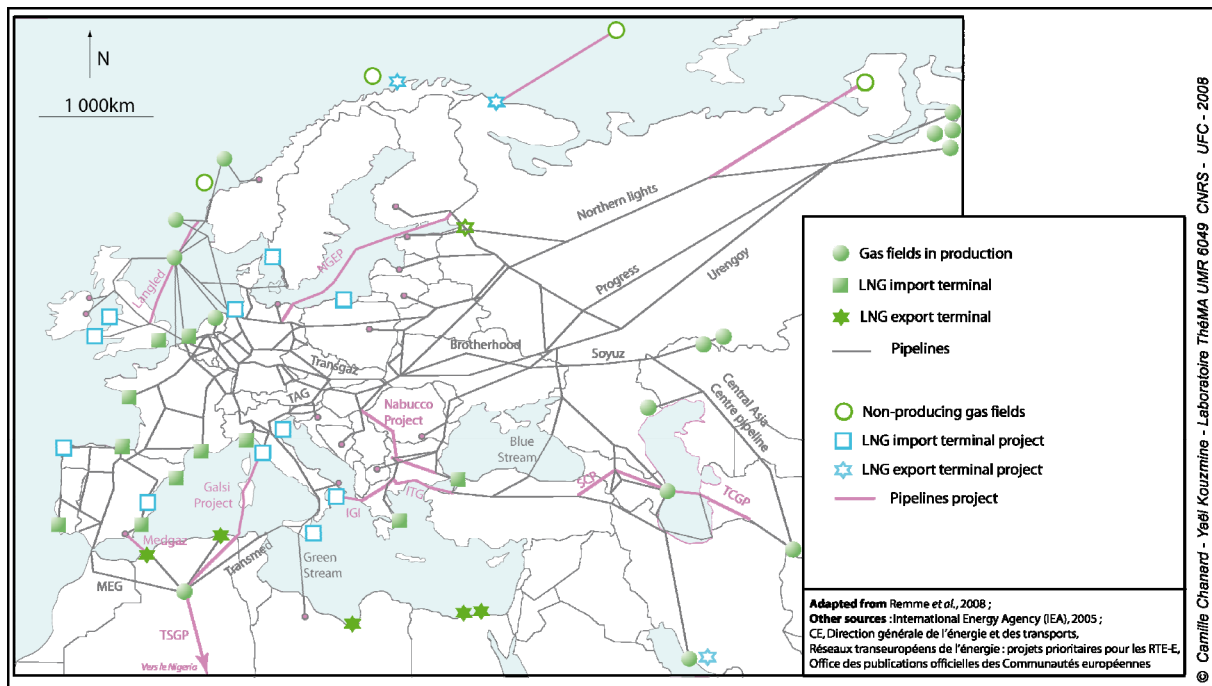


Fig. 5 *The Euro-Mediterranean network of gas pipelines*

3.2. Renewable energies

Even if fossil fuels constitute in the present day the fundamental base of the energy consumption in the Euro-Mediterranean countries, UFM intends to durably support renewable energies development in the Mediterranean Basin. This determination, theoretical for the moment, answers to rarefaction and price increase of fossil energies. All the more that prices of these non-renewable resources will inevitably increase, whatever operating costs. Thus, renewable energies development represents more than an ethical choice, but a real alternative.

In 2006, consumption of renewable energies (hydraulic, geothermic, solar and wind) in the Mediterranean Basin were estimated at approximately 3% of the primary energy supply, with respectively 3.1% for the northern countries and 2.6% for the SEMCs (UNEP, 2006). The Blue Plan (a UNEP Program) recently worked out two prospective scenarios on the energy

evolution in Mediterranean Basin. The first scenario considers continuity in States and companies strategies working in the region, and bases the analysis on a perspective of offer increase. The second, with voluntarism orientation, imagines a common political will for a rational energy use, in order to “increase the energy system effectiveness” and develop renewable energies. Development of these energies (solar, wind, geothermic and small hydraulic) and “use of technologies already available” on the market, could lead to a 20-25% decrease in energy demand, and more in the SEMCs. Moreover, “renewable energies share in energy balance could approach 14%” as against 3% in the present day (UNEP *et al.*, 2006).

In addition, the Blue Plan noted that “the international cooperation [in the Mediterranean] to bring energy consumption under control and to develop renewable energies production” was characterized by “a multitude of isolated projects without a strong structuring capacity in the long term” (UNEP *et al.*, 2006). Diversity of national situations among SEMCs, as well as political basic divergences, are important obstacles for the realization of large scale projects, such as Mediterranean Solar Plan envisaged by the UFM. Nevertheless, bilateral North-South projects are developing, sometimes to the detriment of South-South projects. But attitude of SEMCs concerning development of renewable energies is very variable and largely depends on their energy resources. For example, Morocco which 90% depends on the imports for its energy supply already installed, at the beginning of the 2000s, a wind park between Tétouan and Tangier. This park constitutes the largest installation of Africa and supply 400 000 people for the electric consumption.

On the contrary, Algeria and other producer countries do not feel the urgency to develop this type of installations. Nevertheless, cooperation with Germany led the emergence of two significant projects. The first aims to build a gas-solar hybrid power station in the area of Hassi R'Mel in the north of the Algerian Sahara. The second, the Adrar-Aachen project, proposes the export of solar energy from the Algerian Sahara (area of Adrar) to Europe via Sardinia via high-voltage direct-current lines (HVDC). This project could generate a 10-15% reduction in transport losses. This action for solar energy is in the line of DESERTEC project, which aims to connect the whole of the Euro-Mediterranean countries to a supergrid for the transmissions of solar power. However, at the present time, solar energy is mainly used for rural electrification in the SEMCs. Costs for building of big solar power station remain still high, although solar energy can become competitive by 2020.

Perhaps Union for the Mediterranean, as well as the other mechanisms of cooperation on the energy question, will help the necessary development of the renewable energies use. Moreover, and in spite of the weak productive and industrial integration of Mediterranean Basin (Beckouche and Guigou, 2007), renewable energies can constitute, in the long term, a dynamic market, involving European companies and southern operators, for the benefit of the populations as regards employment and energy costs. But, getting these projects underway requires more than statement of principles.

Conclusion

The progressive construction of a Euro-Mediterranean energy area is in line with a changing context of regional political stakes in the Mediterranean Basin. Economic and political divide remain real and persistent between northern and southern shores. Strong European political integration contrasts with the failure of the concrete realization of the Arab Maghreb Union and with the political fragmentation of the Middle East. Moreover, the GDP per capita differentials, far from reabsorbing, accentuates cleavages between Mediterranean States. The various bridge-building attempts since the 1990s variable succeed, but they provided foundations for a political dialogue, in the absence of an efficient regional cooperation. Tensions remain multiple and geopolitical balances evolved, with the assertion of the foreign actors' role such as United States or Persian Gulf States, which invests financially or strategically this area.

In the concert of geopolitical changes, Euro-Mediterranean dialogue was reaffirmed recently whereas energy field shows well reciprocal stakes and interdependences between States of the Mediterranean Basin. Moreover, with the fossil resources rarefaction and the increase of consumption, energy field was reinforced into the Community policies and takes an active part in the Euro-Mediterranean dialogue. Barcelona Process, Community of energy and Union for the Mediterranean concretely integrate this dimension and could help EU to play a structuring role in the region, contrary to traditional action "of the United States in the Persian Gulf which is equivalent to a "negative authority": aiming to prevent certain actions, more than to determine positively the future of the area" (Noël, 2008). Energy sector, beyond inevitable economic interdependences, can constitute a "common interest in the long term" (Bauchard, 2008). It can make possible to find a Euro-Mediterranean consensus, in particular,

on the renewable energies field in a context of rarefaction of the European hydrocarbon reserves. Thus, renewable energies can, on the one hand represent a local response to a consumption increasing on the southern shore, and on the other hand take part in the diversification of the European energy supply. Moreover, the market of renewable technologies should constitute a considerable economic income for European industries, and a technology transfer to the South. This aspect could, in the long term, redefine energy relations in the Euro-Mediterranean region, and redraw the “energy dependence” map with the emergence of renewable energy producer countries.

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