



Thinking Ahead  
for the Mediterranean



# MEDPRO - Prospective Analysis for the Mediterranean Region

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## Report of the Cairo High-Level Stakeholders Meeting

Cairo, January 12th and 13th 2013

### WELCOME SESSION

CEPS Senior Fellow and Overall MEDiterranean PROspects Coordinator Dr. Rym Ayadi opened the meeting with a brief presentation of the MEDPRO network and thanked partners for contributing to the organization of the project's 3rd High Level Stakeholder's Engagement Meeting in Cairo. This 3rd and last meeting before the project's final conference in Brussels on 26th February aims at evaluating the likelihood of MEDPRO's final scenarios; discuss the future of EU-Egypt relation in the current context as well as the country's current socio-economic situation. She also announced that the work initiated the last three years will be followed up by the Euro-Mediterranean Economists Association (EMEA) which will build on MEDPRO's results and pursue policy research from February 2013 onwards.

Prof. Heba Nasser, from the Cairo University, presented the institution and its role in MEDPRO.

H.E. Ambassador Gamal Bayoumi, Secretary General of the Federation of Arab Investors followed by giving an overview of the history and current context of Euro-Egyptian relations and updating participants on the country's post-Arab Spring economic context. Egypt is North Africa's biggest economy, it is a mainly a service-oriented production system and the revolution has had a heavy toll on it as witnessed by the 50% decrease in imports and exports recorded in 2011. The EU accounts for 30% of total Egyptian external trade flows and is the first foreign investor in the country, whereas intra-Arab trade and investment partners rank second. According to the Ambassador, the current crisis is first and foremost political, and not economic, as several analysts and commentators have described; which urges to focus on searching a political solutions rather than others. In as far as EU's relations with the MED11 region are concerned, the Ambassador urged **for a more visible and more determined role of Brussels in the Middle East Process**, without downgrading ties with Israel, as in his view, it is an essential component of upgrading relations with countries in the region.



## **SESSION 1: MEDPRO Framework and Alternative Scenarios**

### **Thinking Ahead for the Mediterranean**

Dr. Carlo Sessa (Istituto di Studi per l'Integrazione dei Sistemi, ISIS, Italy) presented MEDPRO's qualitative scenario framework and recalled the key underlying assumption: that the future accumulation of wealth and the road towards patterns of sustainable development would be only possible through cooperation with the EU. As a result, besides a business as usual scenario (BAU), the Sessa framework envisaged 3 other possible scenarios:

1. Under a Threats scenario, MED11 countries fail to anchor in sustainable patterns of development, current conflicts in North Africa and the Middle East spread, resulting into a halt of Euro-Mediterranean cooperation. Trade levels decrease due to increased barriers, and economic development is significantly slowed due to infrastructure dilapidation, with GDP growth decreasing by 8.7% compared to actual values.

2. The Union scenario posits MED11 countries will join a model such as the European Economic Area (EEA) and fully implement the European "acquis", hence creating a powerful Euro-Mediterranean region with an important influence on the world stage. Governance is significantly enhanced, countries are commercially integrated with themselves and the rest of the world, infrastructure is upgraded, total factor productivity increases and drives economic performance in an upward trend. As a result GDP increases by 4% compared to the reference scenario.

3. Under the Alliance scenario, MED11 countries meet the challenge of sustainable development, and conclude agreements with the in restricted areas such as trade, education, research etc.

These visions of the future should not be seen as rigid, since the future Euro-Mediterranean relations will be influenced by a number of country specific and contextual factors, resulting in deviations from these stylized storylines.



**SESSION 2: Analyzing  
the transition: Political  
developments in Egypt in the  
Post-Arab Spring**

## **Thinking Ahead for the Mediterranean**

Roberto Aliboni, (Istituto Affari Internazionali, IAI, Italy), gave an analysis of the current political situation in Egypt. The country undergoes serious crises since November and December 2012 sparked by President Mursi's controversial decision to hold the Constitutional Referendum. This resulted in a fault line between proponents of the Muslim Brotherhood who support the current Constitution and their opponents. In a wider perspective, Egypt's political transition is problematic for 5 reasons:

1. The transition has been initiated by the wrong side, since it is the military that came with a roadmap under which elections would take place before rewriting the country's constitution.
2. There exists a systematic opposition between Islamists and other strands of society. In this regard, Egypt's situation is similar to Tunisia where Islamists and non Islamists cooperated to violently oppose afterwards. As a result, it is difficult to conciliate these two systems in one constitution.
3. There is currently confusion between majority and democracy in Egypt which if not resolved, risks leading to the "tyranny of the majority". In this regard, President Mursi made a political mistake, as he failed to reach a re-assuring level of understanding and dialogue with the opposition.
4. Partly as a result, the propensity for dialogue is low in both sides
5. The current draft of the Constitution witness confusion between legislation and constitution, since many legislative issues are dealt with in the Constitution. All these elements plunge the country's future into uncertainty and call on Egyptians to understand the crucial need for dialogue; while external partners need to understand that excessive pessimism on Egypt's future is harmful.

Prof. Ali E. Hillal Dessouki (Cairo University, Egypt) widely agreed on the points raised by Mr. Aliboni and underlined that revolutions do not offer any guarantees on the fact that toppling a dictator leads automatically to the establishment of a democratic system. His analysis of the current political situation in Egypt points to a deep fragmentation of the transition process between and within actors. First, there is a dividing line between old and young Egyptians. While two thirds of the country's population is under 35 years old and the revolution has been spearheaded by youth, rulers remain old.



## Thinking Ahead for the Mediterranean

These two actors have different strategies, as the youth continues to agitate the country and the old push for its demobilization. Despite their force in overthrowing the previous regime, youth failed to realize the importance of other groups, chiefly Islamists. Second, there is a strong religious/secular divide, deeply rooted in Egyptian society. While none of the two movements form a coherent group in the country, Islamists are better organized than secular groups, thus having a wider influence on Egypt's institutions. The long standing social divides are even more palpable than before, and despite talks about fighting corruption and creating social justice, there has not been yet a decisive move from the previous regime's policies and there's no indication as on how these challenges will be tackled by the current government. Furthermore, a growing gender divide can be witnessed in the country; where the status of women is less appreciated today that 30 years ago and is no commitment from the government to ensure gender equality in the current constitution. In addition to these cleavages, there is a widespread perception among Egyptians that the elites of the country are dealing with issues that are not common to all Egyptians; and, the Christian/Muslim divide is wider than before, as Copts feel increasingly insecure and marginalized in the current political context. All these features illustrate both the absence and the urgent need to restore dialogue in the country. However, what is encouraging is that up until now, Egyptians have dealt with these situations peacefully; and, despite the current blockades, the revolution brought fear to an end, making a reversal to authoritarianism less likely.

Dr. Amr Choubaki (Al Ahram Center for Political and Strategic Studies, ACPSS, Egypt) closed the session by providing an additional analysis of the developments in post Arab Spring Egypt. According to him, 3 points characterize Egypt today:

- 1- Egypt's revolution is a process comparable to what Eastern Europe and Latin America witnessed decades ago, where popular pressure led to the downfall of incumbent regimes while not destroying the foundations of the State
- 2- Despite power change, much remains to be done and reforms need to be accomplished. Current rulers have not gone far enough in reforming institutions inherited from the past regime and far reaching reforms addressing these institutions weaknesses are yet to come. In addition, relations with Islamists are contentious as the latter try either to take control or enter into accounts with remnants of the former regime
- 3- Integrating Islamist forces into constructive politics is difficult and it is likely that it will take years before the situation normalizes.



**SESSION3: Demography,  
Human Capital, Inequality  
and Migration: Final  
Scenarios, Policy  
Implications and  
Recommendations**

## **Thinking Ahead for the Mediterranean**

Dr. George Groenewold (Netherlands Interdisciplinary Institute for Demography, NIDI, the Netherlands) presented MEDPRO's population projections of MED11 countries for the year 2030\*. According to the data and depending on the scenario, MED11 populations are projected to increase reach between 395 and 425 million people from the current 280 million. In Egypt, population will grow by 44-53 million people by 2030. In all scenarios, countries in the region will experience an important increase in the working age population, urging governments to design policies conducive to the absorption of these important categories by the labor market. While the population growth allows for a potentially important "demographic dividend", at the same time, population growth might exert important pressures on MED11 societies through the increase in the number of children and elderly, rendering labor policies all the more important for the region. In particular, Euro-Mediterranean cooperation can decisively contribute to better outcomes notably through the creation of migration schemes, since it will experience a decline in total population that will exacerbate the need for particular skills available in the region.

Prof. Alia El Mahdi (Faculty of Economics and Political Sciences of the Cairo University, FEPS, Egypt) presented the research under WP7 devoted to the analysis of human capital, inequality, female labor force participation and migration. In the field of education\*\*, past reforms in the region have been quantitative in nature, and government efforts have concentrated in increasing gross enrollment rates in primary in order to ensure the twin objective of increasing literacy rates among younger cohorts and close the gender gap in access to school. Today, these objectives have been widely attained, but the past focus on education "quantity" has resulted in a situation where the skills mismatch is important and leads to high unemployment, especially among youth. Consequently, and as working age population is set to increase in the coming decades, future education reforms need to be qualitative in nature and rather focus on enhancing teaching curricula\*\*\*.

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\* MEDPRO Population scenarios can be downloaded here : <http://www.medpro-foresight.eu/publication/population-scenarios-south-mediterranean-countries-2010-2050>

\*\* MEDPRO Report on Education and Social protection can be accessed here : <http://www.medpro-foresight.eu/publication/education-and-social-protection-systems-southern-and-eastern-mediterranean-countries>

\*\*\*For an analysis of returns to education in the Southern and Eastern Mediterranean, see : <http://www.medpro-foresight.eu/publication/measuring-returns-education-and-human-capital-southern-mediterranean>



## Thinking Ahead for the Mediterranean

The importance of education is further underlined when analyzing the region's patterns of inequality, as education level is found to be the most important determinant of income inequality\*. Despite the important levels of inequality in the MED11 and their stagnation since the 1990s, the region appears nevertheless to be more egalitarian than other parts of the world such as Latin America. Of particular importance in the region is the question of subsidies: largely used as a means to contain social instability, research proves they benefit mostly to high income households while exerting important pressures on public finances that further constrain governments in designing effective policies to address the roots of inequality. The results of the prospective analysis show that under an optimistic scenario where GDP growth is positive and average consumption growth is of 2%, the middle-class is expected to shrink in the region; while under the pessimistic scenario, high income individuals concentrate growth benefits. As a consequence of these trends, governments will have to concentrate on creating pro-poor policies in the region while giving a particular attention to education quality and employment.

The research has also provided evidence on the existence of a U-shaped relationship between female labor force participation (FLP) and economic growth\*\*. This implies that as GDP rises, first, women exit the labor market, until a threshold beyond which their participation increases. In comparison with other developing and developed countries, it appears that region-specific factors exert an important influence on female labor force participation in the MED11. Estimates for Egypt show that a lower FLP would lead to a loss of 0.20%GDP by 2030; whereas a higher rate would drive GDP up by 1.1% per annum until 2030.

In the area of migration, EU's strategy towards is embedded in its "Global Approach to Migration" which objective is to formulate a set of short and long policies addressing all aspects of migration: economic matters, social affairs and security issues to name a few.

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\* The Technical Report on Inequality in the Southern and Eastern Mediterranean can be found here : <http://www.medpro-foresight.eu/publication/inequality-southern-mediterranean-survey-selected-countries>

\*\* The Technical Report can be accessed here : [www.medpro-foresight.eu/publication/female-labour-force-participation-and-economic-development-southern-mediterranean-countr](http://www.medpro-foresight.eu/publication/female-labour-force-participation-and-economic-development-southern-mediterranean-countr)



## Thinking Ahead for the Mediterranean

In its approach to the MED11, the EU has resorted to a securitization of migration issues which has resulted in a deterioration of governance standards in the region in favor of incumbent regimes' stability. With the advent of the European External Action Service (EEAS) EU's institutional setting needs to be rebalanced in order to loosen the migration-security nexus by ensuring more representativeness of EEAS officials in the decision making processes and design migration schemes likely to fulfill skills needed in the EU while alleviating pressures on MED11 labor markets\*.

Prof. Maged Osman (Egyptian Center for Public Opinion and Research, Baseera, Egypt) called on taking into account the potential impact of transitions on the region's demography, in particular in the case of countries where Islamist governments are in power. As for migration, the trend in EU's population decline coupled to the importance of some MED11 countries' natives in the continent foresees an increasingly multicultural environment, which in turn asks the question of future migrants originating from the region integration. In addition, if it is true that the EU will need more immigration to cope with population decline, it remains to be seen first whether the skills offered by MED11 natives will match those needed in EU economies, and how their geographical distribution will match with deeply rooted patterns of Euro-Mediterranean migration.

### **SESSION4: Economic Integration, Trade, Foreign Direct investment (FDI) and Finance: Final Scenarios, Policy Implications and Recommendations**

Dr. Marek Dabrowski (Center for Social and Economic Research, CASE, Poland) opened the session by recalling some salient facts about MED11 economic performance over the last decades. With the exception of Israel, all MED11 countries are upper and middle income countries; throughout the 1980s their economic performance has been disappointing but it slowly improved during the 1990s and growth rates picked up by the turning of the century. The region's economic performance has varied greatly depending on the countries and the period considered which gave rise to a number of social challenges. MEDPRO research has showed that the region's drivers of growth are to be found in a stable macroeconomic framework and containing inflation; a stable fiscal policy; and trade openness\*\*. running fiscal deficits endangering macroeconomic stability.

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\* For the Technical Report on EU's Migration Policy after the Arab Spring, see : <http://www.medpro-foresight.eu/publication/eu-migration-policy-wake-arab-spring-what-prospects-eu-southern-mediterranean-relations>

\*\* For an analysis of the determinants of growth and macroeconomic stability, see : <http://www.medpro-foresight.eu/publication/determinants-growth-and-inflation-southern-mediterranean-countries>



## Thinking Ahead for the Mediterranean

As regards trade openness, there is scope for significant improvement as the region is one of the world's less integrated despite the number of free trade agreements (FTAs) it concluded. In as far as the impact of the international financial crisis is concerned, the region's lack of commercial and financial integration acted as a buffer, isolating countries from negative spillover effects. However, the Arab Spring has an important cost on the region's economies as witnessed by the decreases in international reserves and the growing risks of currency devaluation. Recommendations for macroeconomic policies revolve around the need to reform the current subsidies' schemes, as they exert an excessive pressure on countries' fiscal balances; increase openness and attract more FDI inflows; and, reserve current employment policies based on increasing public sector employment. A notable effort also needs to be done by the region's governments to reach a stable and transparent business environment through the adoption and implementation of sound legislative frameworks. This latter point will be key for much needed infrastructure investment as MED11 countries show a general deficit in infrastructure that translates into lower rates of economic growth.

Prof. Ahmed Farouk Ghoneim (FEPS, Egypt) followed the discussion by delving into MED11 countries trade policies, focusing particularly on Non Tariff Measures (NTMs) and shallow vs. deep integration\*. Consistently with their integration in world trade, MED11 economies have lowered their tariffs, but the recourse to NTMs remains very high, particularly in countries like Algeria and Jordan which exerts a negative impact on trade flows in the region: the elimination of NTMs could lead to an increase in imports from the EU up to 60% from their current levels. As a roadmap for a better commercial performance, MED11 countries should achieve integration between themselves, and remove selectively NTMs after performing a cost benefit analysis. Indeed, NTMs such as Sanitary and Phytosanitary Standards (SPS) are suitable for public health concerns, but others such as pre-shipment inspections might in turn exert a distortive effect on trade. Another important point relates to the use of standards and technical barriers to trade (TBT): while their use might be beneficial for a country's companies since it allows them to enter foreign markets, they can be detrimental in the absence of mutual recognition agreements (MRA) between trading partners. Concluding such MRAs in the MED11 appears hence to be an important means to facilitate trade and deeper integration in the region. Finally, a particular attention should be given to logistics improvement, since the current characteristics in the region's transport exerts an important cost on trade.

\* For the analysis of shallow and deep integration in the region, see : <http://www.medpro-foresight.eu/publication/shallow-vs-deep-integration-southern-mediterranean-scenarios-region-2030>



## Thinking Ahead for the Mediterranean

Dr. Bassam Kamar (International University of Monaco, Monaco) highlighted that the research on macroeconomics did not take into account the dynamics of debt, as this is a growing concern in the aftermath of the Arab Spring. In the case of Egypt, after the revolution, debt increased, interest rates on government paper reach at 16% in January 2013) which calls for a careful assessment of debt sustainability. He also remarked that the research did not take into account the need for creating an inclusive growth pattern: over the last years, Egypt GDP grew at a rate of 5-6% yearly but it did little in improving the country's socioeconomic situation, leading to the revolution. As far as trade is concerned, Dr. Kamar called on performing a welfare analysis on the winners and losers of NTMs removal: indeed, as the research suggests that imports from the EU could increase up to 60% in the region, MED11 trade balance could worsen. He also underlined the fact that Association Agreements were less profitable to MED11 countries than the EU due to the "hub and spoke" effect, whereby a bigger commercial partner concludes several FTAs with smaller countries and uses his own market as a gateway to foreign markets, leading to trade diversion and a likelihood of lower FDI inflows to smaller partners. From a political point of view, the Barcelona Process of 1995 sought to create an area of peace, but the FTA is yet to come and no peace has materialized, casting doubts on the direction of future EU policies toward the Southern Mediterranean.

### **SESSION5:Energy: Final Scenarios; Policy Implications and Recommendations**

In the view of Dr. Manfred Hafner (Fondazione Eni Enrico Mattei, FEEM, Italy) Euro-Mediterranean cooperation strategy has been a success story: the exports of hydrocarbons from North Africa and the investment of EU companies in the region created many interdependencies, that cannot be reversed. On the contrary, these can be further developed as the region remains still underexplored and the likelihood of discovering new oil and gas fields in the coming years is high. Besides, not only the region is rich in hydrocarbons\*, but the MED11 have a big potential in producing renewable energy sources (RES). Developing RES will be all the more important since electricity demand is exploding, and future trends point at the need to mitigate climate change while supporting population and GDP growth. The development of RES will not however crowd out gas, as it will still continue to play an important role in power generation over the coming years, as solar and wind power production develops\*\*.

\* For an outlook of hydrocarbons in the Southern and Eastern Mediterranean, refer to: <http://www.medpro-foresight.eu/publication/outlook-oil-and-gas-southern-and-eastern-mediterranean-countries>

\*\* For a detailed analysis of RES potential and power generation in the region, see : <http://www.medpro-foresight.eu/publication/outlook-electricity-and-renewable-energy-southern-and-eastern-mediterranean-countries>



## Thinking Ahead for the Mediterranean

Given the environmental, economic and financial constraints at play in the region, meeting the growing electricity demand will require actions both on the demand and supply side. In this regard, clean development mechanisms as well as interconnections within the region and with the EU can be an integral part of the solutions for the MED11. Euro-Mediterranean cooperation in energy gave birth to a number of initiatives such as the Mediterranean Solar Plan and Desertec and many are being currently developed between EU Member States and individual MED11 countries. While many of these are big scale initiatives, achieving the twin objectives of mitigating climate change impacts and meeting the growing energy demand will require the promotion of small scale initiatives such as warm water applications, enforcement of energy efficiency norms in urbanization, decentralized energy etc. In addition to these initiatives, particular attention should be given to the interconnections between Southern Mediterranean Countries, the Gulf Cooperation Council (GCC) and the EU.

The EU can play a decisive role in Southern Mediterranean countries' energy systems, provided it jointly adopts and implements with Energy Ministers of the region the Euro-Mediterranean Roadmap for Energy; which revolves around 6 points:

- 1- The need for an energy transition in the region
- 2- Subsidies' reform
- 3- Energy efficiency and demand side management
- 4- RES potential
- 5- Regional interconnections and markets
- 6- Financing of Southern Mediterranean countries transition

In line with these recommendations, Emmanuel Bergasse (CASE) focused on the second point of the Energy Roadmap, namely; subsidies reform. Subsidies are nowadays a complex and pressing issue due to their negative impact on states' budgets; their inefficient targeting, the price distortions they create and their deleterious effect on energy efficiency and the environment. Moreover, as already pointed by MEDPRO research on inequality, subsidies are ill-targeted they prove more costly than the benefits they generate. Despite this combination of adverse consequences, countries in the region have not modified their subsidies' systems; with the exception of Jordan.



## Thinking Ahead for the Mediterranean

The country conducted a two-staged subsidies reform: first in 2005-2010 the country liberalized its fuel prices and implemented an automatic price adjustment mechanism. At the same time, a dedicated public agency was created and was tasked with managing the targeted support measures for poorer households. However, as an illustration of the sensitiveness of the issue, when the country moved to the second phase in 2021 in the aftermath of the Arab Spring, the move sparked riots in the county and the government was forced to reintroduce them. Reform of subsidies' systems needs to be take revolve around the following 5 aspects:

- 1- Create accurate statistical evidence on social, economic and energy systems
- 2- Develop a database on poor households
- 3- Create of safety nets
- 4- Develop simulation studies and surveys
- 5- A clear communication strategy

Dr. Frédéric Blanc (Forum Euro-Méditerranéen des Instituts de Sciences Economiques, FEMISE, France) further detailed the need to implement demand side management (DSM) measures in the region. Data show that while electricity consumption has increased on average 6% per year over the last decade, energy efficiency has decreased 1% per year\*. Under these trends, energy needs are expected to increase by 70% in 2030. These trends are highly unsustainable and DSM measures can help alleviate these constraints by inducing a more rational use of scarce energy resources. Moreover, the internal rate of return (IRR) of these projects is often positive and very high, rendering such measures feasible from a financial point of view. For DSM measures to succeed, they need to be accompanied by a reform of the current subsidies' framework as it currently encourages energy consumption and waste. In this regard, subsidies should be gradually phased-out in favor of DSM measures targeting households through promotion of energy efficiency in buildings; electrical appliances; heating and cooling systems, etc.

Dr. Nikos Kouvaritakis (E3MLab, Institute for Communication and Computer Studies, National Technical University of Athens, ICCS/NTUA, Greece) exposed the quantitative evidence of energy scenarios developed under the GEM-E3 framework\*\*.

\* For a detailed analysis of energy efficiency in the Southern and Eastern Mediterranean, see : <http://www.medpro-foresight.eu/publication/energy-efficiency-trends-and-perspectives-southern-mediterranean>

\*\* The energy supply and demand scenarios can be accessed here : <http://www.medpro-foresight.eu/publication/prospects-energy-supply-and-demand-southern-mediterranean-scenarios-2010%E2%80%932030>



## **Thinking Ahead for the Mediterranean**

On average, the reference scenario projects that demand will grow faster than power generation capacity. The share of oil is set to decline in favor of gas. Wind energy is expected to pick up, whereas the development of solar energy will remain limited. In the case of Egypt, under the reference scenario, the country is expected to reach a peak in oil production by the year 2020 while LNG exports will pick up and will be directed mainly to neighboring countries. Under the alternative scenarios, that is, the Union and Alliance scenarios Southern and Eastern Mediterranean countries take bold steps in favor of energy efficiency and development of RES alongside the reform of subsidies and price systems. Grids are interconnected thanks to investment mostly accomplished by EU agents. Under the cooperation scenario Southern and Eastern Mediterranean countries must take bold steps and implement ambitious legislation for energy efficiency and RES development. Since in this scenario, the countries maintain strong relations with the EU, FDI increases due to gradual building of trust between the two regions, and the subsequent minor perception of risk. On the other hand, under the threats scenario and the ensuing fragmentation of the region's policy initiatives capital is expected to become scarcer, compromising the region's energy transition.

Prof. Maged Al Sherbiny (Academy for Scientific Research and Technology, ASRT, Egypt) highlighted that despite the many initiatives launched by the EU and the success of Euro-Mediterranean energy cooperation, key to the success of the EU-GCC-Mediterranean development triangle will be to convince GCC states to invest in the region's energy sector. While complimenting the research on its completeness, the discussant asked whether the MEDPRO team had taken into account the impact on labor markets of the energy transition; especially regarding the necessary infrastructure to be built. On the subject of energy efficiency, it will be crucial for governments to change people's mindset and induce them to adopt more sustainable practices. In his view, this process should start by a road map for energy efficiency targeting high income households, since they can act as drivers of social change.



## Thinking Ahead for the Mediterranean

Dr. Hafez Abdel al Salmaoui (Egyptian Electric Utility and Consumer Protection Regulatory Agency, EEUCPRA, Egypt) recognized both the potential and challenges for the development of RES in Egypt. The biggest obstacle that needs to be overcome to allow for the successful development of RES lies in removing energy subsidies. To do so, the government should start by re-designing the tariff structure of energy as the country becomes a net importer. At the same time, removal of subsidies will also be critically dependent on the existence of a functioning safety net to avoid economic and political problems. As for investment, the current frameworks need to be modified in order to facilitate the involvement of investment through the development of guarantees and other risk sharing mechanisms to eventually move from a development assistance view to a merchant perception of investments in the region. Energy efficiency targets and DSM measures are in the pipeline for more than 30 years, notably through donor-financed projects, but they will never reach their full potential until investments in infrastructure materialize; and, a strong local market is created for RES.

### **SESSION6:Natural Resources and Environment: Final Scenarios, Policy Implications and Recommendations**

Dr. Francesco Bosello (FEEM, Italy) recalled the objectives this strand of MEDPRO's research is to analyze and evaluate the criticalities connected to the management of (selected) environmental and natural resources in MED11 countries, their impact on long-term economic growth and sustainable development in the region. To do so the research focused on the following 5 tasks:

1. Assessing potential impacts of climate change on agricultural activity (yields) through crops water requirements
2. Assessing social economic and environmental factors determining water uses in MED11 countries now and in perspective.
3. Assessment of the role of ecosystem/biodiversity in determining tourism attractiveness in coastal areas and possible evolution in the presence of climate change
4. Providing an overall economic assessment of these aspects through computable general equilibrium modelling
5. Offering a methodological/theoretical framework to discuss adaptation strategies



## **Thinking Ahead for the Mediterranean**

The research on agriculture starts from the observation that climate change impacts in the Mediterranean basin will be particularly pronounced, especially as regards precipitations, which are expected to decrease dramatically in the area, threatening agricultural activities and calling for an assessment of climate impact and possible adaptation strategies. The results of the analysis show that crop yields could decrease dramatically due to the new weather conditions: in some countries by more than 15%. Avoiding the drawbacks of these new climatic and agricultural conditions requires both demand side and supply side measures. On the one hand, governments should promote research to develop a better understanding of the issues at stake; provide incentives for high efficiency irrigation systems; set up capacity building programs for specifically designed institutions or water use and management; while promoting new modes of life aimed at water saving. On the supply side, not only new infrastructures such as dams and canals need to be built, but older ones need to be modernized, while new and unconventional sources of water need to be explored.

Water resources management will be all the more important as demand will increase in the future calling for an integrated vision for water and agricultural policies in the Southern and Eastern Mediterranean. Technical and agronomic considerations need to be coupled with economic, social, and institutional factors to design and implement sound and efficient policies. In a future of sustainable Euro-Mediterranean relations (Union and Alliance scenarios), large GDP growth, population expansion and trade development, can result in more water being demanded; but policies that support structural change, technological improvement and better governance, will counterbalance this trend, reduce overall water consumption and conserve renewable water resources. Under these two scenarios, policies that mitigate the large water consuming trends of the past and policies directed to the support of irrigated crop production need to complement irrigation expansion with improvements in the efficiency of water management practices.



## Thinking Ahead for the Mediterranean

With regards to the region's touristic attractiveness, the econometric analyses found that biodiversity is an important determinant of tourist arrivals in the region; and hence, losses in biodiversity can imply non negligible costs for the tourist industry. Due to the importance of tourism in Southern and Eastern Mediterranean economies and its contribution to employment and foreign currency earnings, the region's tourism policy could focus on preserving natural resources, instead of focusing on price control measures. Indeed, ecosystems' preservation seems a particularly cost effective adaptation strategy: in Turkey, Tunisia, Morocco and in the rest of the region, aggregate, economic gains stemming from the avoided decrease in tourism demand alone are sufficient to justify full preservation (obviously ecosystem protection should not be decided only to make tourists happier). However full preservation (moving from the BaU to the Union scenario) would require an effort from 6 to 20 times higher on average than that of the reference scenario. Such a resource reallocation can be problematic and would be facilitated by an enhanced international cooperation and financial support. Nonetheless this may be challenging in countries like Egypt, Morocco and Tunisia which are already largely dependent upon foreign support to finance conservation expenditure.

Prof. Ismail Abdel Galil (former member of the Desertec Research Center) highlighted that water conditions are increasingly difficult in Egypt where demographic pressure and urbanization growth played a significant role in water resources degradation. The situation is currently such that unless policymakers implement bold steps and measures to alleviate these pressures, the country will experience severe water shortages. The basis for designing such policies lies in state of the art data and information systems, but according to the discussant, these are currently highly politicized and do not allow for objective analysis while preventing from identifying the underlying challenges for the country. Not only data available are not reliable, but also the past economic reforms of the country did not take into account environmental pressures, based on a development view according to which environment is a luxury good. A related consequence of the past reforms lies in the fact that agricultural policies did not consider the adaptation capacity of farmer, leading to inefficient practices and exacerbating the gap between water demand and supply.



## Thinking Ahead for the Mediterranean

Overcoming these challenges is however not impossible, provided there exists political will. As a starting point, new policies should start curbing the transformation of agricultural lands into urban lands since such practices entail important losses in biodiversity and soil erosion. In economic terms environmental mismanagement has cost Egypt a total of 45\$bn already; and as of 2012, 70% of the country's natural habitat had been destroyed. Turning to the future, as socioeconomic needs evolve, environmental management should not be reactive but preventive in order to anticipate changing socioeconomic needs and adapt to them at the fastest pace possible.

### **SESSION 7 : Macroeconomic and EU-MED Cooperation: Final Scenarios, Policy Implications and Recommendations**

Dr. Nikos Kouvaritakis (E3M Lab, ICCS/NTUA, Greece) explained the methodology behind MEDPRO's scenario building exercise and the integration of the Sessa framework into the GEM-E3 model. The GEM-E3 is a general equilibrium model covering 20 types of activities and 90 countries/regions. It is based on the assumptions of an optimizing representative agent, which entails that a change in its behavior will influence the outcome of the model. From a methodological standpoint, first, researchers have computed the reference scenario (i.e. the BAU) and then the alternative scenarios (Union, Alliance and Threats) based on assumptions regarding governance, interest rates, investment etc. Finally, the outcomes of each scenario were compared. It is important to note that the model assumes a constant current account balance across different scenarios; as this avoids the illusions of a spurious prosperity. Within the model, the drivers of growth are investment in human capital and infrastructure (transport, water, electricity); trade liberalization (tariffs and NTMs); geopolitical stability and demographic changes (labor force participation, labor mobility). For each scenario, among others, the following assumptions were made:

- Union: investment financed partly by official development assistance (ODA), partly by national resources through a consumption tax. Investment in infrastructure raises productivity through a multiplier effect. In this scenario, sovereign risk is adjusted for governance improvement resulting from the increase in Euro-Mediterranean cooperation
- Threats: degradation of the capital stock depending on the country considered, and conflicts lead to an increase in government spending in the defense sector.



## Thinking Ahead for the Mediterranean

The GEM-E3 framework also embodies the demographic projections developed for MEDPRO as well as labor force participation. The net effect of population increases and FLP is ambiguous because in the Union and Alliances scenarios there's a simultaneous increase in FLP and labor mobility and both are similar in terms of growth. Growth assumptions are derived from WP5 research: GDP per capita increases at historic rates but the rate of growth is insufficient to catch up with other regions.

In all cases, results show that benefits from investment in infrastructure are more important than benefits from trade liberalization. As regards sector activities, most benefits occur in sectors producing investment goods such as construction goods and services.

The general result of the scenario analysis is that both the Alliance and Union scenarios increase welfare, provided investment in infrastructure and human capital takes place. However, from the perspective of activity in the Southern and Eastern Mediterranean, the Union scenario is preferable for both parties.

Nermin Abulata (National Country Coordinator for the EUroMed Charter for Industrial Enterprises, Egypt) personally expressed her preference for an Alliance scenario that would eventually lead to the Union, while ruling out the BAU for its un-sustainability. To contrast with the long term prospective framework, she provided details on short term measures envisaged by the Egyptian government to cope with the current economic turmoil and focused later on the role of micro, small and medium sized enterprises in the country's economy. Six series of measures have been adopted to cope with the current turmoil:

1. Creation of a ministerial task force to streamline legislation
2. Facilitation of access to finance
3. Creation of a ministerial task force to improve training, competitiveness and skills matching
4. Support for trade liberalization, market access and to value chains
5. Develop public/private consultations
6. Improve governance and transparency



## **Thinking Ahead for the Mediterranean**

MSMEs are particularly targeted by the Egyptian government initiatives as witnessed by the recent creation of the program for developing incentives and services for MSMEs aiming at increasing productivity; rational use of resources; encouraging national supply of materials; increase in quality standards; creation of MSMEs' clusters; and, support to priority sectors such as textiles. As a major change from past policies, from now onwards, export promotion activities will be geared exclusively at MSMEs, whereas they were previously targeted at all companies irrespective of their size. Given the multitude of government body working on MSMEs, it will be key to adopt a uniform definition of MSMEs and eventually, a framework resembling EU's Small Business Act.

According to Gerhard Kruse (European Union Delegation to the Arab Republic of Egypt) and speaking from his experience in Egypt, the main problem of the country does not lie in an insufficient investment in infrastructure, but rather in the need to remove market distortions, enhance regulatory and administrative environment and curb state intervention.

### **CONCLUDING REMARKS**

Dr. Rym Ayadi, (CEPS) thanked MEDPRO researchers and discussants for their participation and their suggestions for improving the project's results and policy recommendations. Discussions from stakeholders meetings will serve to fine tune MEDPRO's outputs that will be presented on the project's final conference on 26th February in Brussels.