Towards a Sustainable Euro-Mediterranean in 2030

Dr. Rym Ayadi, Coordinator, MEDPRO, Professor, HEC Montreal & Director International Research Institute on Cooperatives

Euro-Med Cooperation Inland and Marine Water Challenges
The Future of EuroMediterranean Cooperation

• Importance of more integrated political and socio-economic scientific research to explore the drivers of sustainable and inclusive growth and development in the Euro-Mediterranean region to devise long term sustainable policies
  • Building on socio – economic complementarities and synergies between different regions surrounding the Mediterranean
  • Taking into account resources constraints (energy and water) and long term challenges (climate change)

• Relevance of scenario analysis as a strategic and policy tool to drive future developments in the region and with other regions (the case of MEDPRO) to define the challenges and act upon them with alternative policy tools

• Applied research is key to drive the change towards inclusive and sustainable socio-economic development
An Exemple of How Research Can Serve Long term Sustainability Objectives

www.medpro-foresight.eu

www.euromed-economists.org
SUSTAINABLE DEVELOPMENT OF AN ENLARGED “EU-MED” UNION

EU-MED Union: common market and frameworks of action on key topics (e.g. R&D, migrations, trade, energy, water)

SUSTAINABLE CO-DEVELOPMENT OF EU & MED SUB-REGIONS

Differentiated multilateral agreements between the EU and MED-11/Arab regions to enhance cooperation on key topics

THE EURO-MEDITERRANEAN AREA UNDER THREATS

Weakening and failure of cooperation schemes; regional conflicts in the Mediterranean

REFERENCE SCENARIO (BAU until 2010)

Inter-governmentalization of Euro-Med relations through bilateral agreements among EU Member States and MED-11 countries

SUSTAINABLE DEVELOPMENT

“RED” PROSPECT

Success Failure

“GREEN” PROSPECT

Success Failure

“BLUE” PROSPECT

Failure Success

EU-MED ALLIANCE (“Collaboration”)

EU-MED UNION (“Integration”)
Water Withdrawals in Horizon 2030

**Algeria**
Water withdrawals projections to 2030 (% of 2008)

**Morocco**
Water withdrawals projections to 2030 (% of 2008)

**Tunisia**
Water withdrawals projections to 2030 (% of 2008)

**Libya**
Water withdrawals projections to 2030 (% of 2008)
Unsustainable BAU Scenario......

BAU(QI)

Unsust.&Failed Coop. (QIV)

Sust.&Enhanced Coop. (QII)

Sust.&Fragmented Coop. (QIII)
**Cost Adaptation Curves …..**

**Morocco - Q1**

Cost of measures (€/m³)

- Technical efficiency (5646 Mm³)
- Small reserv. (300 Mm³)
- Big reserv. (800 Mm³)
- Wastw. Reuse (500 Mm³)
- Desalin. (1328 Mm³)

Additional water availability (Mm³)
Cost Adaptation Curves ……

Jordan - QI

Cost of Measures (€/m³)

0 0.2 0.4 0.6 0.8 1 1.2

Additional water availability (Mm³)

0 200 400 600 800 1000 1200 1400 1600 1800 2000

Desalination (1387 Mm³)

Small reservoir (356 Mm³)

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Roadmap for Sustainable Water Use in SEMc

- A sustainable development future path requires an integrated vision and a combination of technical, economic, social, and institutional factors fostering structural change → necessary for enacting sound and efficient policies

- Policies should have a dual Supply/Demand vision: A well-adjusted implementation of water supply-enhancing and demand-management measures and improved governance are key for attaining a cost-effective sustainable future and balance the tradeoffs between socio-economic development and water resources conservation

- Improving water management efficiency is necessary → Water demand policies are site-specific (economic instruments) need to be carefully designed not to affect negatively farm income
Reconsidering Water Supply:
- Develop additional sources: desalination and rainwater harvesting (Jordan, Israel) and reuse of treated wastewater (Jordan, Lebanon, Turkey, Israel)
- Rehabilitating/introducing new irrigation networks (Egypt, Lebanon, Morocco, Syria)

Reconsidering Water Demand
- Installing efficient irrigation technologies (All SEMCs)
- Shifting to a more water saving cropping pattern/agenda (Jordan, Egypt, Lebanon, Morocco)

Improving Institutional Management
- Better coordination of policies and governmental entities (Israel, Turkey, Jordan)
- Development of information systems (Morocco, Israel, Jordan)
- Use of economic instruments (Israel, Turkey, Jordan)
- Research and development programs to improve irrigation and farming activities (Morocco)
- Stakeholder involvement (WUAs, ...)

Integrating Climate Change:
- CC impacts/adaptation strategies in water planning and management
Fostering sustainable water use in the EU-SEMC

- EU-SEMC cooperation (framed into Europe 2020, resource efficient roadmap, sustainable water management cooperation, WFD action plans, ENP)

- direct technical and financial support when resources in SEMC are lacking (particularly appropriate to foster irrigation modernization and sustain needed investments)

- Support of policies that set water efficiency targets (water saving technologies), better demand management through economic instruments (tariffs, quotas..), foster institutional reforms for improved governance, minimize impacts of droughts with adapted crops and efficient irrigation

- support decoupling of depletion of w.r. from the level of economic activity enhancing sectoral coordination (agriculture, regional development, energy policies...)
Unsustainable BAU Scenario......

<table>
<thead>
<tr>
<th>Region*</th>
<th>GDP</th>
<th>Population</th>
<th>GDP per Capita</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2010</td>
<td>2030</td>
<td>2010-2030</td>
</tr>
<tr>
<td></td>
<td></td>
<td>% of World</td>
<td>AGR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2010-2030</td>
<td>2010-2030</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2010</td>
<td>2030</td>
</tr>
<tr>
<td>SEMC</td>
<td>1,610</td>
<td>3,564</td>
<td>2.7</td>
</tr>
<tr>
<td>Rest of the Arab World</td>
<td>1,349</td>
<td>3,053</td>
<td>2.2</td>
</tr>
<tr>
<td>EU27</td>
<td>17,462</td>
<td>23,695</td>
<td>28.8</td>
</tr>
<tr>
<td>Emerging Asian Economies</td>
<td>8,840</td>
<td>34,572</td>
<td>14.6</td>
</tr>
<tr>
<td>World</td>
<td>60,556</td>
<td>117,072</td>
<td>100</td>
</tr>
</tbody>
</table>
A “No Action Policy” will lead to......

Red Transition

<table>
<thead>
<tr>
<th></th>
<th>MED11</th>
<th>EU27</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>in b$ 2007 value</td>
<td>in %</td>
</tr>
<tr>
<td><strong>Gross Domestic Product</strong></td>
<td>-5239.02</td>
<td>-12.71</td>
</tr>
<tr>
<td><strong>Investment</strong></td>
<td>-1223.14</td>
<td>-13.42</td>
</tr>
<tr>
<td><strong>Private Consumption</strong></td>
<td>-3316.87</td>
<td>-13.26</td>
</tr>
<tr>
<td><strong>Exports</strong></td>
<td>-2074.43</td>
<td>-20.76</td>
</tr>
<tr>
<td><strong>Imports</strong></td>
<td>-1375.42</td>
<td>-13.10</td>
</tr>
<tr>
<td><strong>Employment</strong></td>
<td>-</td>
<td>-12.86</td>
</tr>
<tr>
<td><strong>Real Wages</strong></td>
<td>-5239.02</td>
<td>-12.71</td>
</tr>
</tbody>
</table>

Source: GEM-E3-MEDPRO
A Sustainable Euro-Mediterranean Policy Agenda will......

<table>
<thead>
<tr>
<th>Blue Transition</th>
<th>Green Transition</th>
</tr>
</thead>
</table>

### Cumulative changes up to 2030 in bn$(2007) relative to the Reference scenario

<table>
<thead>
<tr>
<th>Additional cumulative investment</th>
<th>SEMC</th>
<th>EU</th>
<th>BRICs</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>QII</td>
<td>QIII</td>
<td>QN</td>
</tr>
<tr>
<td>1066</td>
<td>701</td>
<td>1072</td>
<td></td>
</tr>
<tr>
<td>711</td>
<td>449</td>
<td>585</td>
<td></td>
</tr>
<tr>
<td>2896</td>
<td>1905</td>
<td>3368</td>
<td></td>
</tr>
<tr>
<td>1321</td>
<td>1493</td>
<td></td>
<td></td>
</tr>
<tr>
<td>470</td>
<td>189</td>
<td></td>
<td></td>
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</table>

### Decomposition of GDP gains by driver

<table>
<thead>
<tr>
<th></th>
<th>SEMC</th>
<th>EU</th>
<th>BRICs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrastructure</td>
<td>1429</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labour</td>
<td>213</td>
<td>98</td>
<td></td>
</tr>
<tr>
<td>Risk</td>
<td>944</td>
<td>583</td>
<td></td>
</tr>
<tr>
<td>Trade</td>
<td>310</td>
<td>228</td>
<td></td>
</tr>
</tbody>
</table>

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**Towards a Comprehensive Long-Term Euro-Mediterranean Policy Agenda/1**

<table>
<thead>
<tr>
<th>Rationale</th>
<th>RED TRANSITION</th>
<th>BLUE TRANSITION</th>
<th>GREEN TRANSITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The EU will assist SMECs countries in their political transitions towards fully democratic regimes</td>
<td>The EU will assist SMECs countries <strong>in their own economic and social modernization processes</strong>, and help them to <strong>build regional (South-South) linkages, trade and cooperation schemes</strong>.</td>
<td>To build enhanced Euro-Mediterranean partnership schemes in energy, environment and socio-economic areas.</td>
<td></td>
</tr>
<tr>
<td>The critical period to deliver the package is <strong>since the Arab revolts</strong></td>
<td>The critical period to deliver the package is <strong>until 2020</strong>, to prepare for a more balanced cooperation/partnership with the EU up to 2030</td>
<td>The critical period to deliver the package is <strong>until 2030</strong>, which is the time for large programs and infrastructure investments in energy, transport, ICT, water and environment (including adaptation to climate change) to be implemented and produce their effects.</td>
<td></td>
</tr>
</tbody>
</table>

04 November 2014, Naples
**Towards a Comprehensive Long-Term Euro-Mediterranean Policy Agenda/3**

<table>
<thead>
<tr>
<th>New approaches recommended as a result of MEDPRO research</th>
<th>RED TRANSITION</th>
<th>BLUE TRANSITION</th>
<th>GREEN TRANSITION</th>
</tr>
</thead>
</table>
| For the EU to provide a **strong political message of a vision** for the SEMCs towards more **sustainable transitions** (blue and green) with **short and long term actions** | **Comprehensive socio-economic agreements** will be mutually agreed towards a sustainable future that is agreed by the EU and the partner country (and/or region) | **Regional economic and financial integration**, human development programmes and targeted mobility partnerships should be encouraged | **Progressive completion of the Euro-Med Economic Area**

**Focus on:**

- A Euro-Mediterranean energy transition strategy
- A Euro-Mediterranean environment adaptation strategy

04 November 2014, Naples
Follow-up of MEDPRO: The Euro-Mediterranean Economists Association (EMEA)

A deep interest galvanized by the Arab spring and the willingness to contribute decisively to the transition process in the Southern and Eastern Mediterranean encouraged MEDPRO Coordinator Dr. Rym Ayadi and the project’s Partners to found the Euro-Mediterranean Economists Association.

Mission:
The wave of recent Arab uprisings has created new uncertainties and challenges in the Mediterranean region. A profound transition process of varying magnitudes is underway. Its outcome will be determined by the interaction between a number of political, socio-economic and geopolitical factors calling both on governments and external actors to redesign and implement new and specific strategies able to cope with the new realities unfolding in the region.
Aimed at contributing to an understanding of the changing realities in the region, the Euro Mediterranean Economists Association- EMEA brings together leading economists and high-level experts to think for the future of the Euro-Mediterranean. It serves as a leading forum for debate on the political and socio-economic reforms in the south and east Mediterranean with the aim of promoting sustainability and regional economic integration. It will strive to contribute to the rethinking of the Euro-Mediterranean policies in view of the new dynamics of a multi-polar world.

Goals:
- To monitor and to contribute to the reform processes in the political, economic and social agendas
- To identify trends, signals and analyze uncertainties and prospects
- To provide recommendations on the future of regional integration and Euro Mediterranean policies
- To disseminate new political and socio-economic thinking and views through a regular flow of publications and public events
- To develop a network of excellence of economists and high level experts in the Euro-Mediterranean region

Activities:
- Develop an observatory of socio-economic reforms and prospects
- Develop a Euro Mediterranean Economic Council-EMEC
Thank you!

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**About MEDPRO**

**Title**
MEDPRO – Prospective Analysis for the Mediterranean Region

**Description**
MEDPRO explores the challenges facing the countries in the South Mediterranean region in the coming decades. The project will undertake a comprehensive foresight analysis to provide a sound scientific underpinning for future policy decisions at both domestic and EU levels.

**Mediterranean countries covered**
Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Palestine, Syria, Tunisia and Turkey

**Coordinator**
Dr. Rym Ayadi, Centre for European Policy Studies (CEPS)

**Consortium**
Centre for European Policy Studies, **CEPS**, Belgium; Center for Social and Economic Research, **CASE**, Poland; Cyprus Center for European and International Affairs, **CCEIA**, Cyprus; Fondazione Eni Enrico Mattei, **FEEM**, Italy; Forum Euro-Méditerranéen des Instituts de Sciences Economiques, **FEMISE**, France; Faculty of Economics and Political Sciences, **FEPS**, Egypt; Istituto Affari Internazionali, **IAI**, Italy; Institute of Communication and Computer Systems, **ICCS/NTUA**, Greece; Institut Europeu de la Mediterrania, **IEMed**, Spain; Institut Marocain des Relations Internationales, **IMRI**, Morocco; Istituto di Studi per l’Integrazione dei Sistemi, **ISIS**, Italy; Institut Tunisien de la Compétitivité et des Etudes Quantitatives, **ITCEQ**, Tunisia; Mediterranean Agronomic Institute of Bari, **MAIB**, Italy; Palestine Economic Policy Research Institute, **MAS**, Palestine; Netherlands Interdisciplinary Demographic Institute, **NIDI**, Netherlands; Universidad Politecnica de Madrid, **UPM**, Spain; Centre for European Economic Research, **ZEW**, Germany

**Budget and Funding**
Total budget: €3,088,573  EC-DG RESEARCH contribution: €2,647,330

**Duration**
1 April 2010 – 31 March 2013 (36 months)

**EC Scientific Officer**
Dr. Domenico Rossetti Di Valdalbero, DG RESEARCH

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www.medpro-foresight.eu

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