

What is the Mediterranean Action Plan?

An action-oriented regional effort involving 21 countries bordering the Mediterranean and the European Community to deal with common problems of marine pollution.





Who are the Contracting Parties?



Albania



Algeria



Bosnia & Herzegovina



Croatia



Cyprus



Egypt



European Community



France



Greece



Israel



Italy



Lebanon



Libya



Malta



Monaco



Montenegro



Morocco



Slovenia



Spain



Syria



Tunisia



Turkey



Presentation based on:-

- Findings of the 4th IPCC Report;
- Environment & Development Report – BP/RAC
- Work of the MCSD;
- Outcome of the 15th Meeting of the Contracting Parties to the Barcelona Convention.



4th IPCC Report

Scientific evidence:-

- **Global temperatures have risen sharply;**
- **Increase attributed to GHG of anthropogenic origin;**
- **Global warming is “unequivocal”;**



4th IPCC Report and the Mediterranean



- **Climate trends consistent with global ones;**
- **Temperatures for land and sea have risen – 2 degree C in SWE during 20th century;**
- **Alpine glaciers are retreating;**
- **Sea level has been rising;**
- **Rainfall increased N. of Alps – decreased SE;**



Projections if GHG continue to rise



By end 21st century:-

- Summer temperatures will increase by 5 degrees C;
- In winter rainfall will increase in NM and decrease in SM;
- In summer rainfall will decrease by 30% throughout the region;
- Snow cover will continue to decrease;
- Sea level will rise by 20 to 60 cm;
- Summer heat waves and very hot summers;
- Long drought periods.



Sectors Negatively Affected



Water Resources

- **Annual average rainfall to decrease by 24%;**
- **Compounded by extremely dry summers;**
- **Drought will increase significantly and so will stress on water resources;**
- **Population suffering from water scarcity (less than 500mm pp, pa) to increase from 170m to 290m by 2050;**
- **Water scarcity could lead to conflicts.**



Sectors Negatively Affected

Coastal and Marine Ecosystems

- **Sea level rise could increase damage from tsunamis and storm surges;**
- **Inland waters will have lower volume of water and increased salinity;**
- **Aquatic ecosystems are projected to disappear;**
- **Sea level rise could have significant impact on coastal cities and biodiversity.**



Sectors Negatively Affected



Forests

- **Rise in temperatures increases forest fires frequency;**
- **Number of days potentially favourable to forest fires will increase;**
- **Forest areas expected to contract;**
- **Decrease in precipitation will exacerbate drought conditions and increase fire risks;**
- **Summer 2007 worst fires in Greece with high human loss and socio-economic costs.**



Sectors Negatively Affected



Agriculture

- **Increase in temperatures will:**
 - **reduce productivity of major crops;**
 - **increase their water requirement;**
 - **increase demand for irrigation.**

- **Reduced crop production from lack of water resources and decreased precipitation.**



Sectors Negatively Affected

Coastal Tourism

- Med accounts for 16% of international tourism;
- With higher temperatures in summer Med. Would become less attractive to tourists;
- 1 degree C increase by 2050 could result in 10% decrease in tourists in SM;
- Tourism activities are vulnerable to climate change;
- Coastal tourism threatened by sea level rise.



GHG emissions in the Mediterranean



- **Since 30 years energy consumption doubled;**
- **Med. Contributes only 7% of total GHG emissions;**
- **Med. Not high emitter of GHG but is an eco-region extremely vulnerable to climate change;**
- **Insufficient encouragement for renewable sources of energy in spite of significant potential (wind and solar);**
- **Pricing and tax structures not conducive to energy saving – substantial savings could be made from rational use of energy;**



MSSD Proposals for combating climate change

Calls for sustainable management of energy and mitigating of and adapting to climate change through:-

- **Rational use of energy;**
- **Enhance renewable energies;**
- **Reduction in GHG emissions;**
- **Mainstream adaptation measures in national development plans;**
- **Strengthen regional cooperation and support for implementation of UNFCCC and its Kyoto Protocol.**



Recommendations from 12th MCSD



- **Mainstream renewable energy, energy efficiency and climate change concerns in NSSD;**
- **Assess the socio-economic impact of climate change;**
- **Collaboration among countries for capacity building and investment;**
- **Encourage more Clean Development Mechanism (CDM) Projects in Med. countries;**
- **Increase International Financial Investments for projects in transport and energy sectors;**
- **Governments to target procurement strategies at climate-friendly options.**



Recommendations from Almeria



➤ **Initiate rapid ratification of new ICZM Protocol as a response to climate change on Med. Coastal ecosystem;**

- **Promote better management of energy demand;**
- **Promote increase energy efficiency;**
- **Exploit potential for solar and wind energy;**
- **Encourage better management and restoration of forests as carbon sinks;**
- **Promote better water demand management;**
- **Prepare risk assessment for storage of carbon streams in geological formations.**



Adaptation Measures



- Water – (1) wastewater reuse (2) desalination (3) better demand management;
- Coastal & Marine Ecosystems – (1) adaptation strategies integrated in CAMPs (2) better management of MPAs;
- Forests – (1) more fire protections measures, (2) monitoring and (3) public education;
- Coastal tourism – (1) move tourism infrastructure further back e.g. introduce setback lines (2) change seasonal pattern (3) promote new forms of tourism e.g. eco-tourism.
- Adaptation less costly than mitigation.



The challenges for Climate Change

- **Combating Climate change – central peace policy in 21st century;**
- **If unchecked will trigger new tensions;**
- **Threat to stability of the North Mediterranean countries;**
- **Exacerbates existing problems – the flow of migrants;**
- **Need for proper assessment of the negative effects of climate change;**
- **Need for innovative diplomatic efforts.**



Thank You For Your Attention

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