

CLIMATE CHANGE AND MALTA

Presentation about Malta to the

Future Climate Change Policy: Looking beyond 2012 International Workshop, 11-12 October 2006, Ljubljana

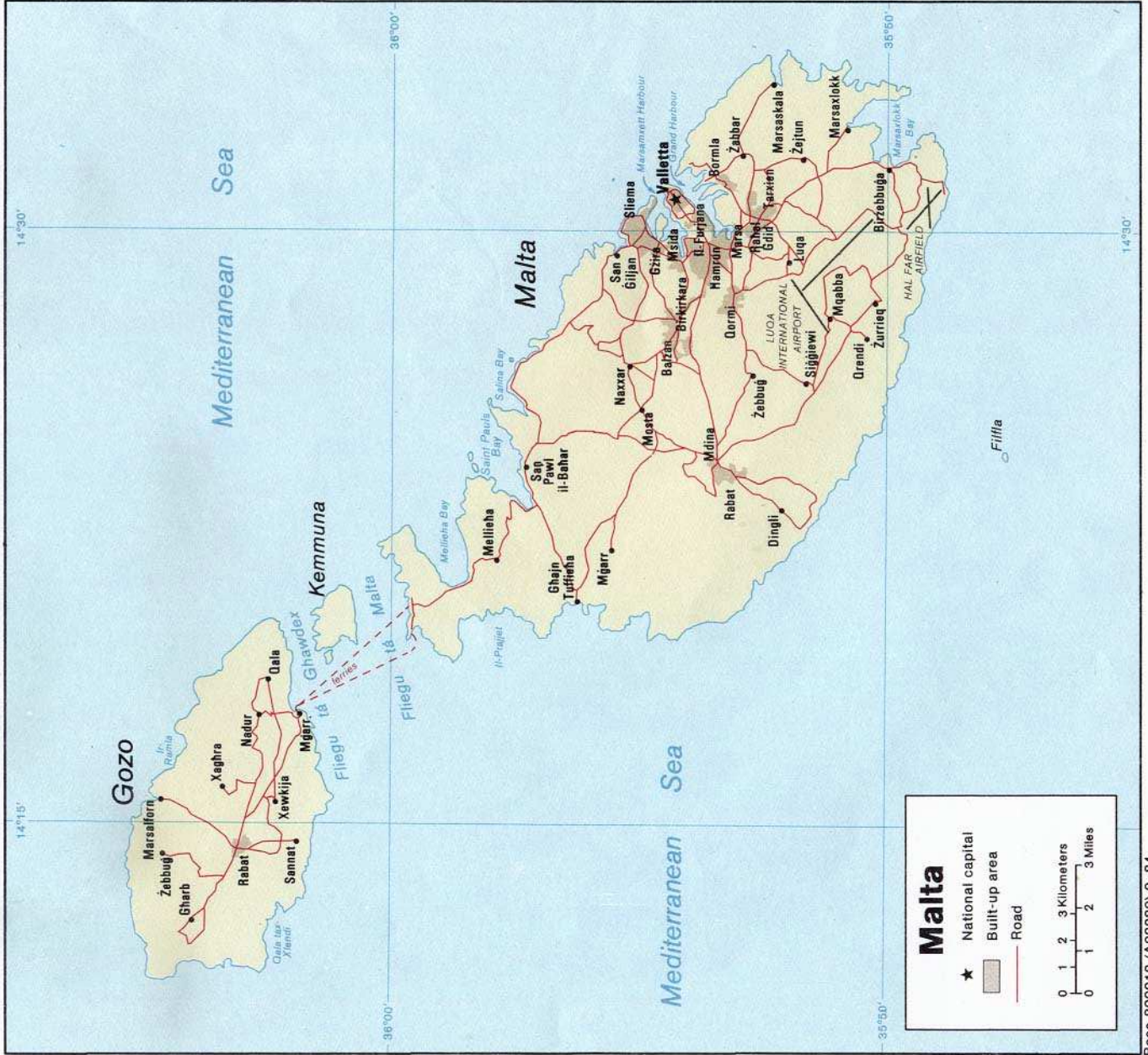
- By Vanya Walker-Leigh
- Nature Trust Malta



A few words about Nature Trust Malta

- **The largest Maltese NGO (3000+ members, 0.75% of the population)**
- FIVE Nature reserve management projects, educational outreach to schools, dolphin rescue and marine environment, general environmental advocacy, partner in civil society campaigns on sustainable development issues (re-zoning of agricultural land for urban development, golf course proposals etc).
- Member, National Commission for Sustainable Development
- Privileged Partner WWF:
- Member European Environment Bureau:
- Member, Executive Committee MIO-ECSDE (Mediterranean Information Office for Environment Culture and Sustainable Development)
- Coordinator for the network of EU Mediterranean Accession Countries (Malta, Cyprus and Turkey)
- Member/Malta Co-ordinator, Foundation for Environmental Education
- Member and Chair of Youth Environment Europe
- **Full Member: Climate Action Network Europe**





EU's smallest nation

- 316 sq.km.
- 400,000 inhabitants (*1.5 million of Maltese descent mainly in Canada, Australia, UK*)
- 1250 per sq.km (2nd highest world density after Bangladesh)
- 1/3 land area built over
- 135,000 dwellings (40,000 unoccupied)
280,000 CARS
- A 'welfare state'..low poverty and unemployment levels, + much 'hidden' personal wealth
- A traditional, tight-knit society..facing 'modern' problems..and hooked on state of the art IT, domestic appliances etc etc:
- TWO major political parties (less than 1% majority at recent elections and EU referendum) + Green Party, with no parliamentary seat

EU's most colonised nation..

- Occupied from 400 BC to 1964 AD by
-*Phoenecians, Romans, Arabs, Normans, Aragonese/, Spaniards, the Knights of Malta (1530-1798), French (1798-1800) the British (1800-1964)*
- 3000+ aerial bombing raids in World War II
- Heavy out-migration post-1945 (Canada, Australia, UK etc) till 1970s..

Two official languages: English and **Maltese** – born out of medieval Arabic (but now with 40% Italian words, + some *English*)

- Il-prevenzioni mill-g^o arg^oar fid-diversi in^o awi tal-pajjiż hija priorità g^oall-Gvern preżenti. Apparti l-progetti ta' bini ta' *watercourses*, il-Ministeru fix-xhur tas-sajf qed iwettaq ^odma intensiva li tinkludi tindif ta' widien....
(*Department of Information, Press Release, August 2006*)

in the street:

Ara!... Kif int? *hey! How are you?*

Omm, huti, mara, tfal, kelb, xoghol, dar.. Kollox sew. U int? *Mum, wife, kids,dog, work, house..all fine. And you?*

Orrait. (from the English – alright)

Prosit! Cao Cao ! (*prosit – German, from Latin
and Cao from the Italian - ciao*)

Bi! (*from the English, Good-bye*)



Traditional Maltese...



A rich archaeological and architectural heritage



Valletta – 900m x 600m – a tiny magnificent capital city built 1566-1581, on a grid pattern (first since Roman times)..
World Heritage Site



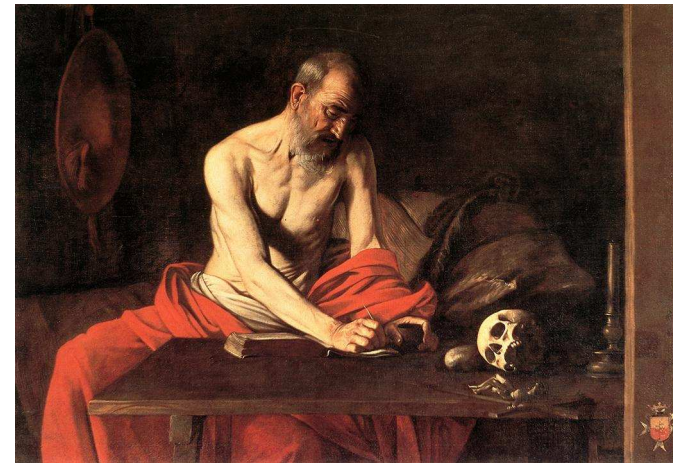
Valletta, with the southern coast in the background..and
some indoor shots next...





Two famous Caravaggios hang in the cathedral, painted during his 10 months in Malta (1608)

- The beheading of St. John and St. Jerome Reading



Non-stop building boom – no 1 investment...



Malta's two key contributions to international Climate Change policy

- 1. Malta introduced a resolution to the UN General Assembly of 1988 calling for international action on climate change
- 2. Michael Zammit Cutajar, first UNFCCC Executive Secretary (till 2002). At present chairing the UNFCCC AWG on post-2012 Kyoto Protocol commitments.





Malta and UNFCCC

- Kyoto Protocol: NON-ANNEX I Party. Classified as a small island developing state, amongst the most vulnerable.
- EU member state since 1 May 2004, assumes *acquis communautaire* (but not emission reductions) : Not included in EU ‘burden sharing’ agreement (for EU 15)
- Post-2012: obligation to limit rate of growth of, if not actually reduce emissions within EU CC policy seen by Government as ‘a possibility’.
- CDM beneficiary status now – but for how long?
- Meanwhile, has submitted NAP 1 (emissions from the 2 fuel-based power stations only) thus can participate in ETS and recently submitted NAP 2.

Malta's Climate Change Initiative

- UNFCCC First National Communication (2004) Financed by GEF through UNDP.
- FNC Steering committee included main stakeholders, including NGOs.
- The outline national climate change strategy included was approved by Cabinet – April 2004.
- In addition the following were implemented
 - (1) Compilation of an annual greenhouse gas inventory for 1990-2000,
 - (2) Greenhouse gas abatement analysis,
 - (3) Analysis of vulnerability to climate change and adaptation measures,
 - (4) Public Awareness through two national symposia, workshops, publications, comprehensive project website, TV and radio programmes, feature articles in newspapers,
 - (5) Co-operation between many experts and organizations,
 - (6) Training of consultants for future national communications - capacity building and project sustainability.

And...

- **Further research work under the Climate Change Initiative:**

- 3 studies completed in 2005

- Identification of technology needs for emission reduction,
- Identification of technology needs for adaptation to climate change,
- Establishment of a climate change programme for Malta based on identification of emission reduction and adaptation technology needs,
- Short references in National Sustainable Development Strategy (2005) and National Reform Plan submitted to EU.
- At present, no information available on Ministry of Rural Affairs and Environment website
- Present NGO involvement in CC policy development : none.
- Next: a capacity self-assessment to prepare application for funding for FNC 2 (submission date not fixed), a second GHG inventory etc

The two policy options all countries share...

- MITIGATION
- ADAPTATION

MITIGATION: Malta's main emission sources..and related data

- Main emission sources:
- **Energy** 74 %, **Transport** 20% *Manufacture and construction* 2% *Others* 4%.
- *GHG emissions per head in 2004 (EEA): 8 tons EU-25: 10.9*
- *Energy intensity of GDP in 2003 (EEA):*
- *toe per \$1 million GDP in PPS relative to EU-25 (100) MALTA 80*
- *total emissions in CO2 equivalent: 3.2 mn in 2004: (2.2 mn in 1990) 0.006 % of EU 2004 total.*
- **Present status of energy policy and planning: Four documents issued for consultation in mid-2006**
- *1. Proposal for Energy Policy*
- *2. the Consultation Paper On The Liberalisation Of The Inland Fuel Market,*
- *3. the Draft Renewable Energy Policy for Malta*
- *4. MIIT/Enemalta' s–Electricity Generation Plan 2006-2015.*

Some comments from independent energy experts:

- *Professor Robert Ghirlando, Institute for Energy Technology, University of Malta, to a public seminar 6 September 2006: (<http://home.um.edu.mt/ietmalta>)*
- **the Policy's presentation and subject areas need reorganisation, greater coherence with other documents, more quantification, elimination of mutually contradictory statements.**
- *and Dr. Mario Fsadni, Director, Institute of Energy Technology, University of Malta, at the same seminar*
- Sixty percent of Malta's fuel imports are used to generate electricity. There is direct and indirect evidence that energy efficiency in Malta can be improved in the intermediate and long term – in electricity generation, distribution and end-use in all sectors.
- *R.Farrugia, M. Fsadni, E. Mallia and C. Yousif (IET + Department of Physics, University of Malta – 3 papers presented to the World Renewable Energy Conference, August 2006)*
- ? REs could contribute equivalent of 24% of Malta's 2003 electricity consumption (solar, wind, biomass) +4.8% from SWH electricity savings.
- ❖ ? Incentives so far have not been supported with a proper legislative and technical framework..and could hinder large-scale RE projects.
- ❖ ? In the absence of any formal national energy policy, these processes (*NAP 1, various decisions*) have appeared to be confused, dilatory and even contradictory. A coherent energy policy is urgently required.



Transport

- 0.7 cars per inhabitant (EU=0.5): road transport energy use 15-20% less efficient than EU average. (Mallia)
- Significant proportion of 'elderly' vehicles: latest SUVs, Ferraris, Mercs also much in evidence...(despite 100% import tax)
- Inefficient and unattractive public transport
 - considerable number of 50-year old dirty, noisy and bone-shaking buses
 - routes (nearly all radiating out of Valletta), timetables, punctuality, fall short of commuter and leisure demand.
 - potential for water transport (ferries) underdeveloped
 - potential for cycling limited by a) terrain b) very high summer temperatures
- **Assessment to 6 September seminar by Professor Edward Mallia, University of Malta:**
 - almost too late to integrate land use and transport planning
 - present government policy dominated by the Public Transport Association's demands (bus owners cooperative with 100% monopoly), not by efficiency considerations
 - new mass transit systems will only work if accompanied by strong restrictions in private car use.

Conclusions of the expert study on **Technology Needs for GHG Emission Reduction..and some NTM thoughts on CDM**

- ✓ significant EU R&D in power generation and abatement of GHG in the areas of power generation and transport.
- ✓ BUT the availability of technologies is not enough by itself.
-
- ✓ Administrative and technical capacity building are needed
- ✓ power generation capital projects will require external financing (both multilateral and from financial markets)

CDM?

- Uncertainty whether Malta's status will continue post-2012
- Small size of economy/market,, high transaction costs
- Some talk about possible application, but nothing definite so far
- Alternative approaches to achieve CDM type results?
- such as, a Mediterranean regional approach, which could be based on the potential of Euromed ITI, Malta, carried out within the framework of the Mediterranean Strategy for Sustainable Development? (see below)

The Nature Trust view on Mitigation...

- ***'burden sharing' should not 'let Malta off the hook' as far as REDUCING emissions to the maximum possible extent, but HELP Malta achieve ambitious targets.***
- *The reductions will have major social/environmental benefits due to positive impacts on eg...*
- Very high levels of child asthma, adult respiratory diseases, female breast cancer (air pollution thought to be one possible cause)
- Deterioration of buildings, certain household goods
- Very slow movement of traffic at peak hours
- Loss of scarce land to ever more roads, parking lots etc
- Inadequate thermal comfort in high number of homes and public buildings
- Deposition of airborne chemicals from energy and transport sources on food crops
- *economic benefits eg*

reduction of energy use per GDP unit

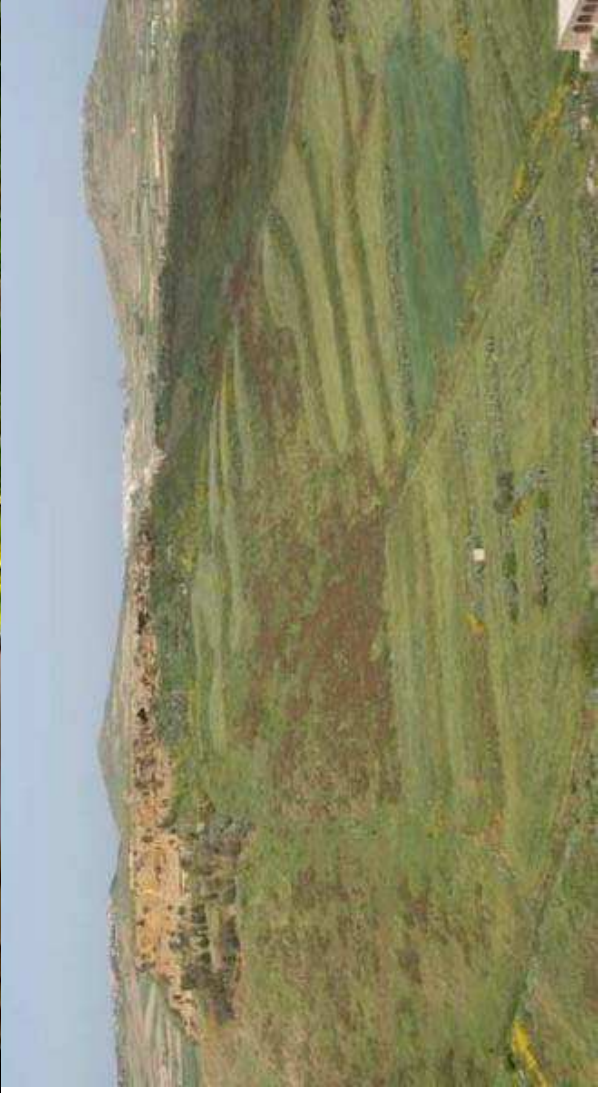
reduced cost of personal mobility

reduced costs of cleaning buildings, household furnishings, interior structures etc

reduced heating/cooling bills (REs and EE) .. and improved thermal comfort

ADAPTATION: a major challenge for Malta..and the Mediterranean basin

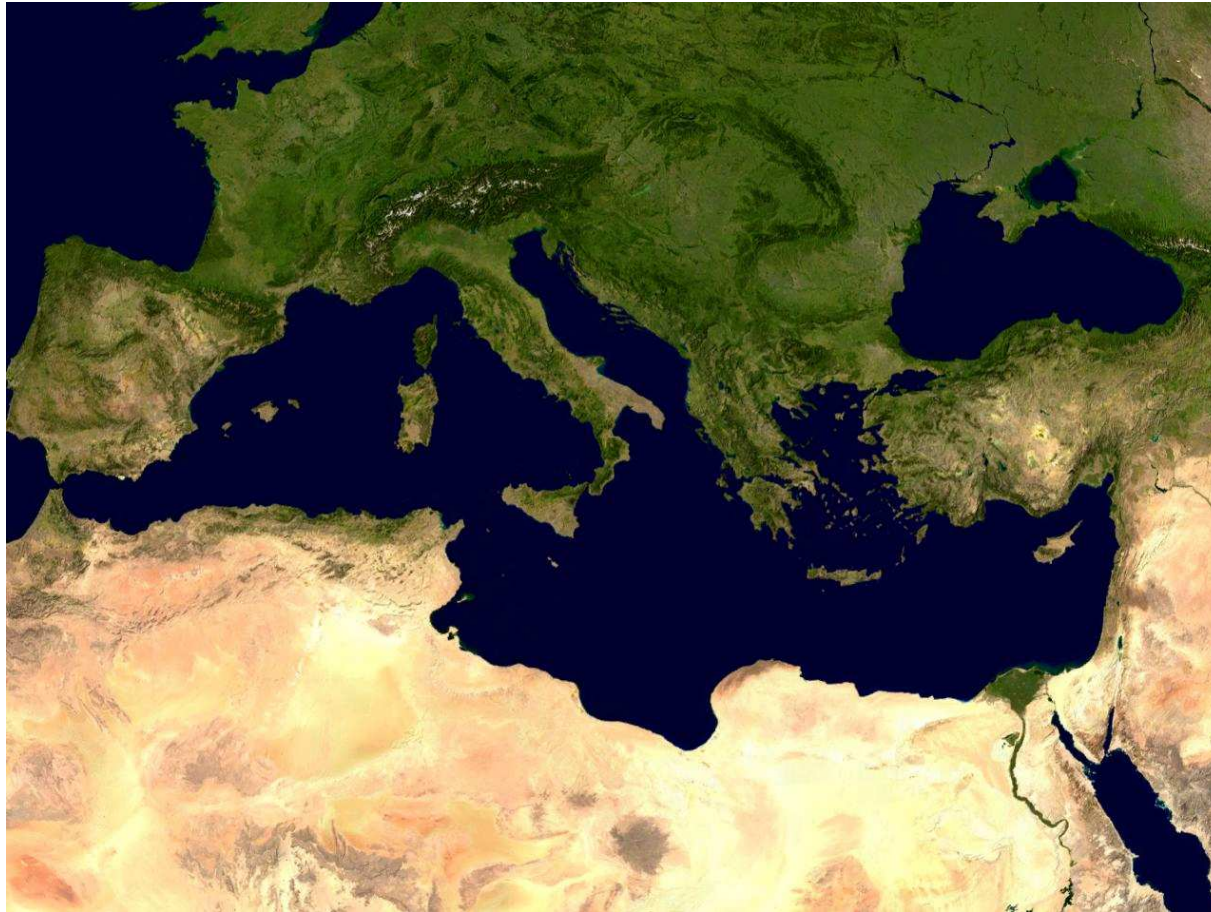
- Major expected impacts of Climate Change on Malta: FNC 1.
 - 50% chance of +3° temperature rise by 2100
 - 50% chance of 17% decline in precipitation by 2100
 - the deterioration of potable water supplies and quality
 - more frequent extreme weather events
 - increase in soil erosion
 - accentuated desertification process
 - reduced biodiversity *(so farmers, farmland + livestock in the 'front line' (see over...))*
 - threats to public health
 - changes in sea water mass characteristics and effects on fish stocks
 - sea level rise – (+50cms by 2050, + 100cms by 2100 ie coastal erosion, inundation, saline intrusion into coastal aquifer)
- **FNC OVERALL ASSESSMENT: Malta's economic vulnerability to climate change is expected to be moderate to moderately high.**
- **CRITICAL ECONOMIC IMPACT In MEDITERRANEAN ACCORDING TO World Wildlife Fund**
- *Summer tourism in the Mediterranean progressively impacted by CC..leading to major drop in arrivals..by 2030? (let alone beyond)*



Malta's Adaptation Strategies...as recommended by....

- [A National Climate Change Programme for Malta, Dr. Simone Borg, 2005.](#)
- [Adaptation](#)
- **Conservation of water resources: recycling of liquid waste**
- **Land use and biodiversity conservation: afforestation**
- **Combat soil erosion: introduce sustainable farming practices**
- **Sustainable fisheries + marine sinks**
- **Contingency plans for hot days + research on vector-borne diseases**
- **Coastal management and re-zoning**
- [Key mechanisms](#)
- **A Voluntary Negotiated Strategy with foreign companies for technology transfer via CDM mechanisms *(not yet)***
- **A permanent multi-stakeholder body (Climate Change Co-ordinating Committee) for holistic cross-sectoral decision making.**
- ***(letters sent around to ministries..not established yet..)***
-

An EU AND Mediterranean Approach?



A Mediterranean approach, already underway..

- **THE MEDITERRANEAN STRATEGY FOR SUSTAINABLE DEVELOPMENT** 2005, adopted by the Barcelona Convention* and endorsed by the Euromed**. Summit in Nov 2005 posits a joint approach to Climate Change including:
 - *Promotion of energy-saving policies and renewable and cleaner energies*
 - *Encourage economic mechanisms, such as Tradable Renewable Energy Certificates (TRECs), and regulations designed to promote renewable energies.*
 - *Strengthen regional cooperation and support the implementation of the Framework Convention on Climate Change and its Kyoto Protocol*
 - *Develop synergies with the Mediterranean Renewable Energy Programme (MED REP), the Rome Mediterranean Energy Platform (REMEP) and the Euro Mediterranean Energy Policy.*
 - *Mainstream the concept of adaptation to climate change in national policies.*
 - *Develop plans to anticipate risks and adapt the most exposed Mediterranean areas, especially islands, deltas and arid agricultural zones, to climate change.*
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BARCELONA CONVENTION 1976: EC, France, Spain, Italy, Greece, Slovenia, Malta, Cyprus+Monaco+14 East/South Mediterranean states
- **EUROMED. PARTNERSHIP:** EU 25 and Turkey, Syria, Jordan, Israel, Palestine Authority, Lebanon, Egypt, Tunisia, Algeria, Morocco.

To sum up

Malta's CC M and A operational policy is yet to emerge

Mitigation

- ❖ needs considerable external funding
- ❖ and help with capacity building
- ❖ and technology transfer
- ❖ ...first of all from the EU

Adaptation:

- would benefit from sharing development of adaptation strategies/exchanging best practices, expertise with other semi-arid countries with similar ecosystems, climatic conditions ...and tourist developments ...ie the other Mediterranean countries..
- THANK YOU

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