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Issue 4

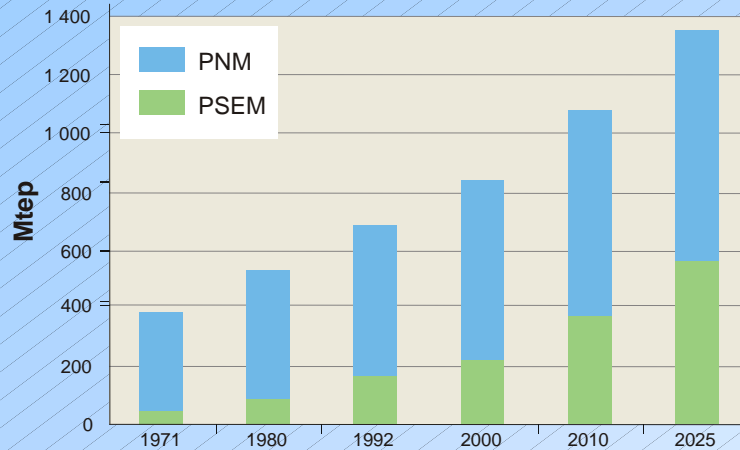
Energy and climate change

Presented by Patrice Miran



Basic trends: fossil fuels supply , strong demand and CO2 emissions increase

Primary energy demand, PNM-PSEM, business as usual scenario 1970-2025



Source: OME

• Primary energy demand doubled in the Mediterranean between 1970 and 2000

• Upon this trend energy demand in 2025 in respect to 2000 is :

The double for the whole Mediterranean area

The triple for the southern shore

Dépendance to fossil fuels will be stronger: 21% in 1970 to 38% in 2025

CO2 emissions : 7% of the world in 2000 to 9% in 2025

Non sustainability risks associated to this scenario:

Geopolitical and economical: external dependance and energy access

Negative impacts on environnement : infrastructures, transports, CO2 emissions ...

Stakes around a more sustainable energy scenario:

- Rational use of energy: reduce waste of energy
- Renewable energies: explore possibilities of development
- Maximise opportunities of Kyoto Protocole



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Objectives

15. Reduce energy intensity in the Mediterranean countries
16. Develop renewable energies to meet 7 % of the energy demand by 2015 (Biomass not included)
17. Invite Mediterranean countries to use all the joint implementation mechanisms of Kyoto Protocol and to prepare post-Kyoto negotiations about GHG emissions reductions
18. Develop a strategy for adapting to climate change certain exposed regions
19. By 2015, halve the proportion of the population (compared to 1990) with no access to electricity by favoring the use of renewable energy



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Orientations and actions



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- Set overall and sectoral objectives in each country for the rational energy use and for developing renewable energies
- Encourage economic actors to adopt sustainable behaviour in their use of energy by acting simultaneously on prices, subsidies, tax tools and via certification and awareness-raising campaigns
- Rationalize the mediterranean interconnection networks
- Elaborate plans for adopting the most exposed areas of the Mediterranean to climate change (in particular islands and delta)
- Include concepts of climate mainstreaming and climate headroom within all national policies



SDI Proposals for the SDMS



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Objective 15

- Energy intensity
 - Do we progress in rational energy use?

Objective 16

- The proportion of renewable energies (REs) in the energy balance sheet
 - Is the use of renewable energies making progress?



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Objectives 17 and 18

- CO2 Emission per capita
- Number of projects and total amount of investments made under the Clean Development Mechanism (CDM) of the Kyoto protocol
- Share (%) of CDM investments coming from Mediterranean countries of the annex 1 in total CDM investments made in non annex 1 Mediterranean countries
 - Are the Mediterranean countries managing to keep under control CO2 emissions and to respect their international commitments ?

Objective 19

- Electrification rate (urban, rural)
 - Do we progress toward the objective of reducing the share of population without access to electricity?



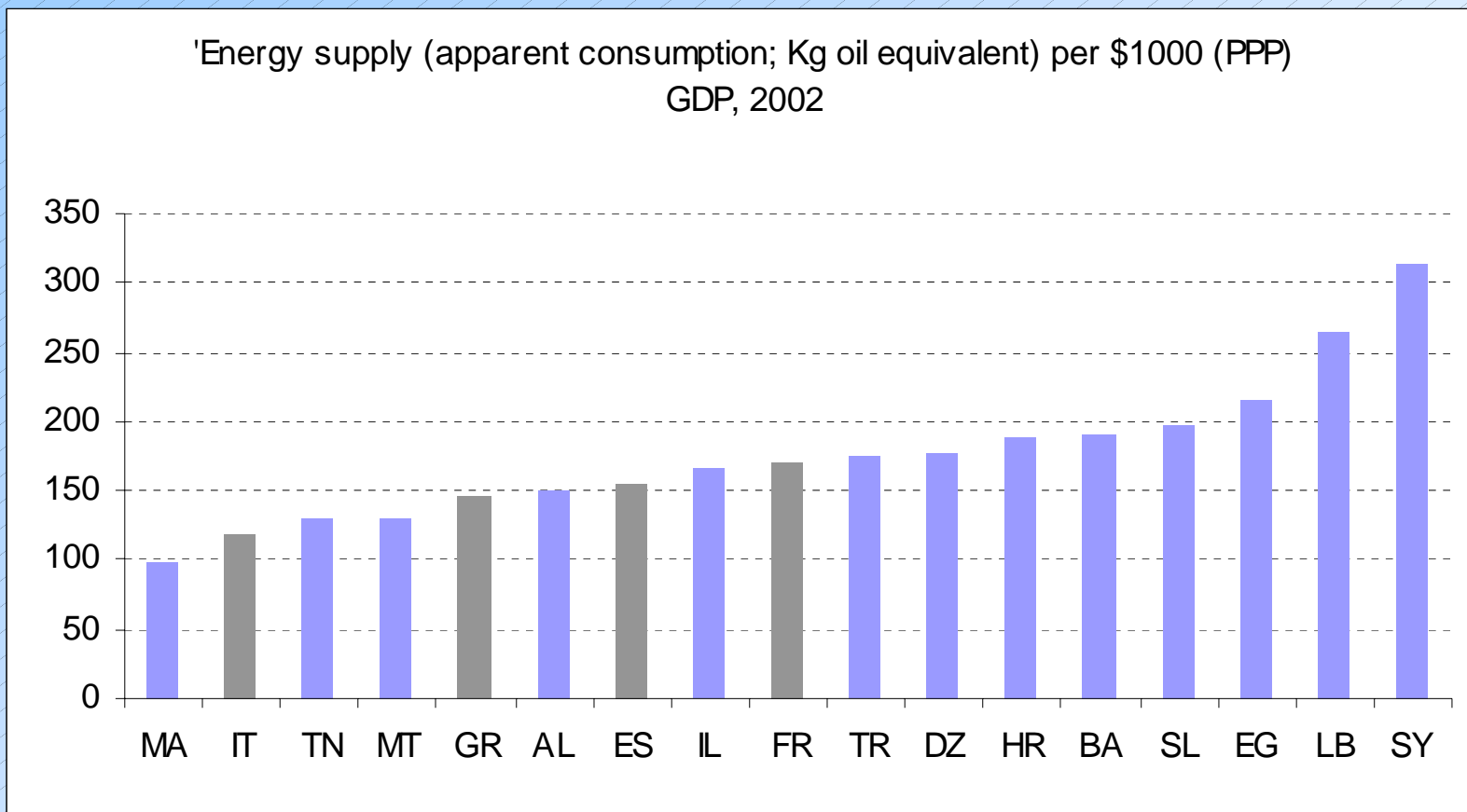
Energy Intensity



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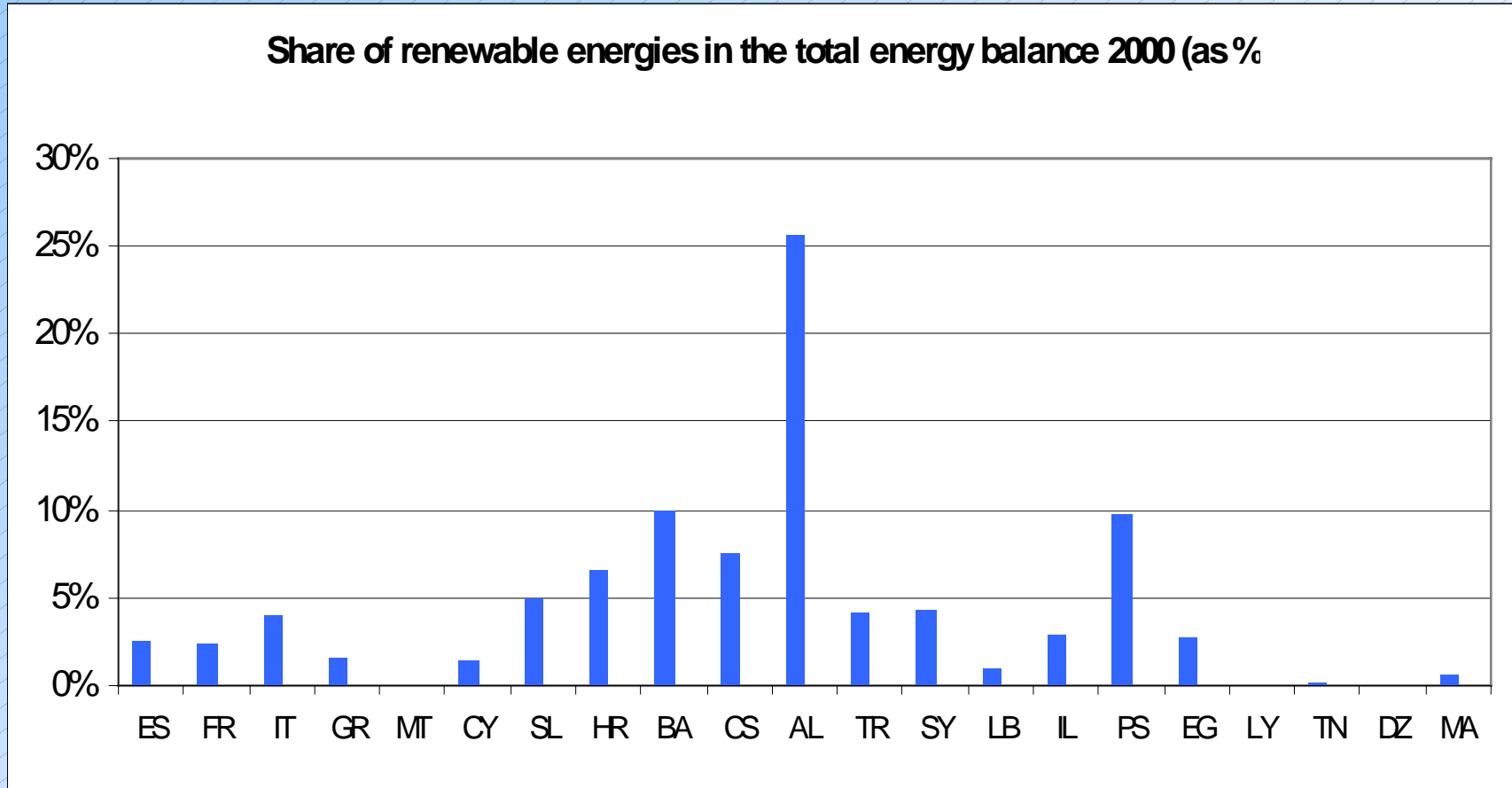
Share of renewable energies



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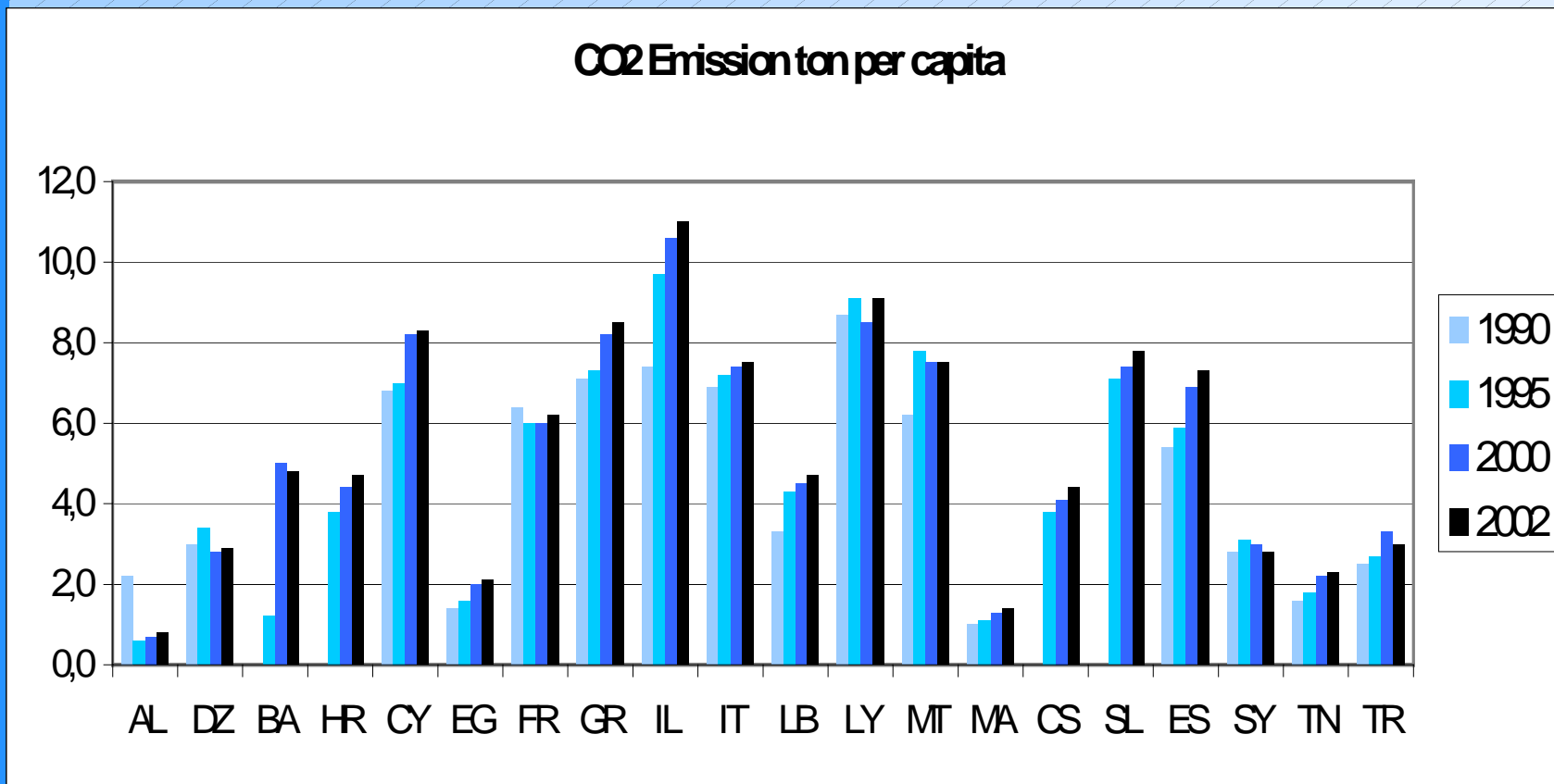
CO2 emissions per capita



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CO2 Emission ton per capita



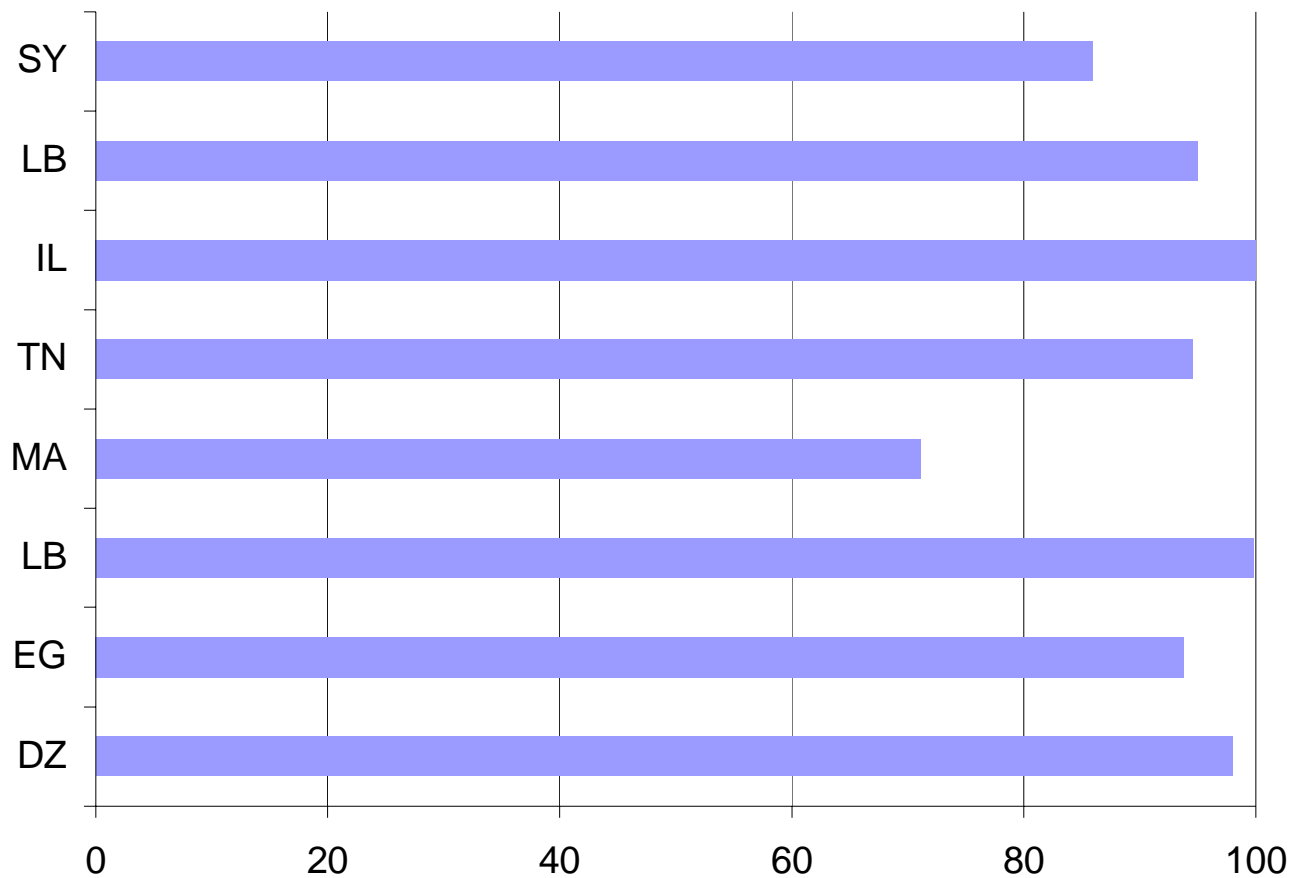


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Electrification rate in 2000 (%)





SDI on Energy out of the 130 SDI



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69	Energy intensity
70	Energy balance
71	Share of consumption of renewable energy resources



SDI on Air Quality out of the 130 SDI



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110	Emissions of greenhouse gasses
111	Emissions of sulphur oxides
112	Emissions of nitrogen oxides
113	Consumption of ozone depleting substances
114	Frequency of excess over air standard (ozone)
115	Expenditure on air pollution abatement
116	Share of clean fuels consumption in total motor fuels consumption
117	Share of agglomerations over 100 000 inhabitants equipped with a air pollution monitoring network



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