10 infographics to understand the state of the environment and development in the Mediterranean in 2020
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The Mediterranean basin, vulnerable resources under pressure
State of the Environment and Development in the Mediterranean

- About 70% of the Mediterranean population live in urban areas.
- 1/3 of the Mediterranean population live in the coastal zones.
- Mediterranean imports represent 11% of world trade.
- Less than 1% of the world’s ocean surface and 2% of forests but 4-18% of the world’s marine biodiversity, including 20-30% endemic species (highest rate of endemism in the world).
- 191 UNESCO World Heritage Sites
- The Med remains one of the world’s busiest shipping lanes and hosts 17% of the world’s oil tanker capacity.
- 7% of the world’s ocean surface and 2% of forests
- 10% of world GDP in 2017, but one of the world’s largest North-South wealth divides with per capita income gaps of 1 to 5 (in GDP per capita in purchasing power parity).
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The Mediterranean, a climate change hotspot
Already

0.4°C
increase in seawater temperature (up to +3.5°C by 2100)

Sea level rise
between 0.43 and 2.5 m by 2100, depending on scenarios and projections. Increased risk for the 20 million people living below 5m of current sea level

Low-lying coastal cultural heritage sites are threatened by flooding and erosion

Consequences

- heat waves
- coastal erosion
- fires
- invasive species
- acidification of the sea
- floods
- modification of migrations and risk of extinction of certain species
- quality aquaculture fishing
- agriculture production

Warming 20% faster than global average

Increased fire risk through a longer fire season, increasing heatwaves and drought

A decrease of -0.1 in the pH of the ocean since the pre-industrial period, and a forecast of -0.4 by 2100

-30% of rainfall in spring/summer by 2080 and +10/20% of heavy rainfall events outside of summer

+1.54°C increase in air temperature: above the global average (projection in 2040: +2.2°C versus +1.5°C global level)

State of the Environment and Development in the Mediterranean (SOED) 2020
The Mediterranean coastal zone concentrates and accumulates pressures.
70% of the population in the cities (which are mostly coastal) and 30% in rural areas. Rurality in the South more pronounced than in the North.

Increasing «coastalization»

184 million tonnes of solid waste/year (1 kg/pers./day). Low recycling rates.

Aquaculture production x4
in 20 years and exceeds 2 million tonnes per year

Offshore industry of natural oil and gas:
new «gas rush» to recent discoveries of large gas fields in the eastern Med.

Artificialization of the coastline continues to increase, it is over 25% in half of the Mediterranean countries.

One of the largest ecological deficits in the world (the consumption of resources exceeds the availability of renewable resources) and which increases with population growth.

Watersheds bring pollution from land to sea and can contribute at up to 90% to heavy metals inputs.

78% of assessed fish stocks are overexploited.

1/3 of the Mediterranean population lives on the coast.

1st world touristic destination
360 million tourists, largely concentrated in summer and on the coast. 26 million cruise passengers/year.

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Environmental degradation, a risk for human health
Exposure to managed and unmanaged waste streams can impact human health: cancers, birth defects, miscarriages and premature deliveries, behavioral disorders, ...

Chemical products

With synergistic effects are increasingly present in the environment (pesticides and fertilizers, pharmaceutical and cosmetic products, flame retardants, additives for plastics phytoestrogens, etc.) and their human health effects are largely unknow.

Waste

Exposure to managed and unmanaged waste streams can impact human health: cancers, birth defects, miscarriages and premature deliveries, behavioral disorders, ...

Air Pollution

Main environmental health burden with 228,000 deaths

Climate change

increased risks to human health: heat waves and extreme events (droughts, storms and floods), potential for increased transmission of vector-borne, water and food-borne diseases

Obesity

Gradual abandonment of the Mediterranean diet: > 20% obesity in all countries (up to > 30%)

Natural hazards

(volcanic and seismic events that can cause tsunamis) and risks related to emergencies and crises caused by humans (conflicts, wars, civil unrest, chemical or radiological incidents) that can impact the quality of the environment and human health.

30% of the population live in water-scarce countries. 220 million people suffer from water scarcity, 26 million do not have access to safely-managed drinking water services, 160 million people do not have access to safe sanitation.

500,000 deaths per year

in Med countries, attributable to modifiable environmental factors = 15% of deaths. Rate 2 to 3 times higher in the SEMCs and the Balkans than in the EU countries.

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The Mediterranean, a biodiversity hotspot
The emblematic Posidonia oceanica has experienced a 30% decline over a period of 50 years and its functional extinction is likely by 2100 (no-action scenario).

Rich biodiversity under threat
The Mediterranean hosts up to 18% of the marine species known in the world and 17,000 marine species in just 0.3% of the ocean volume.

Highest rate of endemism in the world: 20-30% of marine species are endemic.

At least 78 marine species and 168 coastal endangered species. 41% decrease in marine predators (including mammals).

1,000 non-indigenous marine species in the Mediterranean, 10% of which are invasive.

48% of wetland habitats have disappeared since 1970.

9% of the marine area is officially protected and only 10% of these sites implement management plans.

78% of assessed fish stocks are overexploited.

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A contrasted Mediterranean between the South and the North
Turkey hosts the highest number of refugees.
Lebanon has the highest proportion of refugees, the Syrian Arab Republic is the country from which the highest number of refugees originates.

Unemployment varies between 4% (Malta) and 30% (Palestine). 2x or even 3x more youth unemployment in most countries.

Migratory crossroads:

3 world records

Women spend around 2x more time on unpaid household chores than men in the North and between 5x and 9x more in the South and Albania.

Food Security

better in the North than in the South. All countries except France and Croatia depend on cereal imports and all countries except France and Spain have a deficit in agricultural trade.

Fertility rate: below the replacement rate of 2.1 in the North (aging population and decrease in the number of inhabitants) and beyond in the South (except in Lebanon). Young and increasing population in the South (14 years younger than in the North).

314 million inhabitants in the South
198 million in the North

70% of the population in cities
30% in rural areas

4 of the 5 countries with a rate at less than 50% of access to safely-managed water services are from the South

30% of the Mediterranean’s total GDP (Average GDP / capita in the South: 3 times lower than in European countries)

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The Mediterranean subject to multiple forms of pollution
Air Pollution

2/3 of Mediterranean countries exceed the global WHO recommended threshold for air pollution from particulate matter and ozone.

Insufficient contribution to the overall objectives of reducing CO₂ emissions (produces around 2 Gt of CO₂ = 5% world emissions)

Up to over 100 µg/m³ in some Med areas

World average (39.6 µg of PM₂.₅ m⁻³)
EU average (14.2 µg of PM₂.₅ m⁻³)

Use of of fertilizers and pesticides above the world average in more than half of the Med countries

49% of coastal water bodies in Mediterranean do not achieve good environmental status

Presence of “emerging contaminants” with poorly understood life cycles and impacts, potentially toxic and not treatable by conventional wastewater treatment plants (pharmaceuticals, cosmetics, flame retardants, plastic additives, etc.)

Noise pollution at sea is a danger for some species, such as cetaceans

Pollution due mainly to heavy metals combined with the continuous discharge of treated and untreated wastewater, effluents from the production and processing of metals, energy production, treatment and production of pulp and paper, chemical industry, intensive farming and aquaculture

Bright spot

Mediterranean = among the busiest sea lanes in the world, but records a decrease in oil spill accidents at sea despite increased traffic

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# 8

**Act:** profound changes for sustainable development
Enforcement
Enforce common and agreed objectives and commitments

Institutional capacity
Raise the political profile of environmental institutions and issues

Local action
Translate national and international commitments into local actions adapted to the territorial context

Transition to a sustainable future
Upgrade and diversify the policy mix

Networking and co-construction
Develop permanent collaborative frameworks

Foresight
Anticipating the transformation of coastal and marine areas

Useful knowledge
Put existing knowledge to use

Monitoring
Implement, sustain and expand common monitoring frameworks

Transparency
Document and communicate the stakes of environmental degradation and socioeconomic inequalities

Learning by doing
Learn from experience sharing and peer review mechanisms for adaptive policies

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The story of the State of the Environment and Development in the Mediterranean
Human activities and behaviour are the main drivers of environmental change in the world and in the Mediterranean. These activities exert increasing pressures on ecosystems leading to degradation of environment and livelihoods. A further exacerbation of already existing fragilities of the Mediterranean eco-socio-system is projected.

How?
- Upscale action to protect & restore
- Enforce regulations
- Invest in transitions
- Monitor & put knowledge to use
- Work together

Progress towards sustainability has been achieved mainly consisting in the development of policy responses and actions.
- Efforts have led to positive results compared to scenarios of no intervention.
- But this has not been sufficient to safeguard the Mediterranean while answering to human development needs.

The Mediterranean environment can be safeguarded
- while simultaneously fostering human development
- taking into account South-East-North differences

Through urgent and collective efforts for transformative change
- A fundamental and systemic reorganization of economic and social (incl. legal) systems
- Including profound changes in paradigms and values
- Required to achieve SDG’s in the region

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Building together Mediterranean’s future
PLAN BLEU : A REGIONAL ACTIVITY CENTER

Plan Bleu acts as an environment and development observatory in the Mediterranean. It is a regional activity center among 6 others in the Mediterranean, working within the Mediterranean Action Plan (MAP) under the United Nations Environment Program (UNEP). Plan Bleu is the regional activity center of the Barcelona Convention hosted by France. About ten experts including scientists, analysts and economists, helped by support functions, make up the Plan Bleu team.

In 1976, the countries bordering the Mediterranean and the European community adopted the Barcelona Convention, to protect the maritime environment and its coastal areas. The need to jointly understand development and environment to build a sustainable future in the Mediterranean is already fully integrated by the signatory countries.

OUR VALUES
• Sharing knowledge, expertise and skills.
• Respect for differences.
• Solidarity between countries, between institutions, between people.

OUR MISSIONS
Observe the environment and development to inform decision-makers
Designing possible futures for sustainable development
Monitor the implementation of the Mediterranean Strategy for Sustainable Development
Integrate climate change as a priority
Supporting the transition to a green and blue economy
Provide socio-economic insight for appropriate management of Mediterranean resources
Alerting decision-makers and stakeholders to environmental and sustainable development issues in the Mediterranean.