

10 infographics

to understand the state of the environment
and development in the Mediterranean in
2020



Summary

- #1** The Mediterranean basin, vulnerable resources under pressure
- #2** The Mediterranean, a climate change hotspot
- #3** The Mediterranean coastal zone concentrates and accumulates pressures
- #4** Environmental degradation, a risk for human health
- #5** The Mediterranean, a biodiversity hotspot
- #6** A contrasted Mediterranean between the South and the North
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#

1

**The Mediterranean basin,
vulnerable resources
under pressure**



About
70%

of the Mediterranean population
live in urban areas.

Hosts around
30%
of global tourism in
2017: the first tourist
destination in the world.



7%

of world demand for primary
energy and 5% of global oil
reserves.



7%

of the world population
(512 million inhabitants
in the 22 riparian countries
in 2018).



1/3

of the Mediterranean
population live in the
coastal zones.



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).

191

Unesco World Heritage Sites



17%

The Med remains one of the world's
busiest shipping lanes and hosts 17%
of the world's oil tanker capacity.



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).

5%

of global CO₂ emissions in 2014.





#2 The Mediterranean, a climate change hotspot

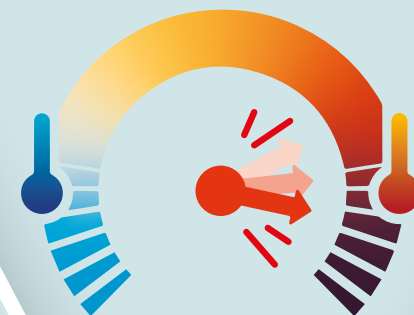
Already
0.4°C
increase in seawater temperature
(up to +3.5°C by 2100)



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



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



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



Warming
20%
faster than global average

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



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



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



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

An aerial photograph of a coastal city, likely Algiers, Algeria. In the foreground, a large, ancient stone fortress (Fort de l'Étoile) sits atop a rocky, green-covered cliff overlooking the sea. A long breakwater extends from the shore into the water. In the background, a dense urban area with many high-rise apartment buildings is visible, nestled against a backdrop of steep, eroded hills and a large mountain in the distance. The sky is clear and blue.

#

3

**The Mediterranean coastal zone
concentrates and
accumulates pressures**



184

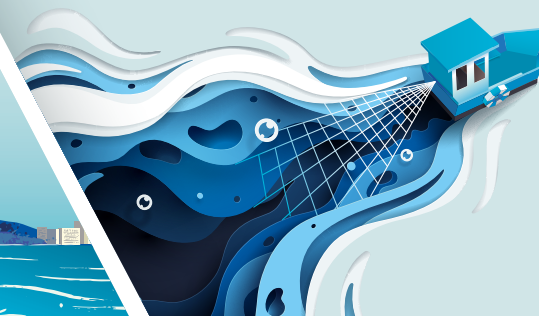
million tonnes of
solid waste/year (1 kg/pers./day).
Low recycling rates.

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.



Overfishing:
78%

of assessed fish stocks are overexploited.



**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.



**Increasing
«coastalization»**

1/3

of the Mediterranean
population lives
on the coast.

**offshore
industry**

of natural oil and gas:

new «gas rush» to recent
discoveries of large gas fields
in the eastern Med.

Watersheds

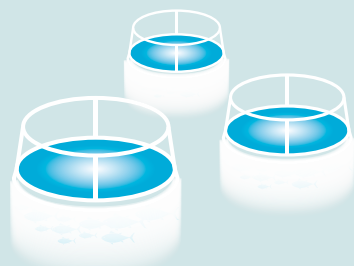
bring pollution from land
to sea and can contribute at
up to 90% to heavy metals inputs.



**Aquaculture
production**

x4

in 20 years and exceeds 2 million
tonnes per year



**Artificialization
of the coastline**

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



1st

world touristic destination

360 million tourists, largely concentrated
in summer and on the coast.
26 million cruise passengers/year.



The background of the slide is a photograph of a sky. At the top, a bright sun is partially obscured by clouds, creating a lens flare effect. Below the sun, there are layers of clouds, some light and wispy, and some darker and more dense. In the lower center, a small, dark silhouette of a twin-engine propeller airplane is flying towards the viewer. On the right side of the image, there are large, diagonal geometric shapes in shades of blue and grey, which appear to be part of a graphic design element.

#4 Environmental degradation, a risk for human health

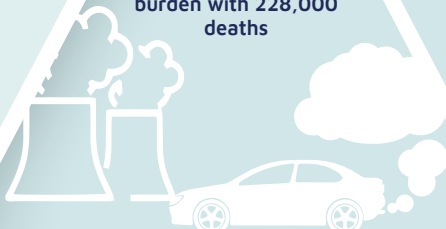
Obesity

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



Air Pollution

Main environmental health
burden with 228,000
deaths



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.



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



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 unknown.



Good news

Improvement in the quality
of bathing water: 90%
qualified "good" or even
"excellent"

Waste

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



Natural hazards

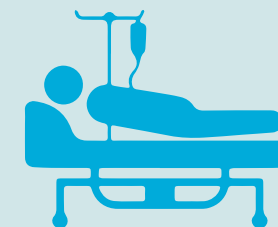
(volcanic and seismic events that can
cause tsunamis) and risks related to
emergencies and crises caused by humans
(conflicts, wars, civil unrest, chemical or
radiological incidents) that can impact
the quality of the environment
and human health.



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.





#5 The Mediterranean, a biodiversity hotspot

Rich biodiversity under threat
The Mediterranean hosts up to

18%

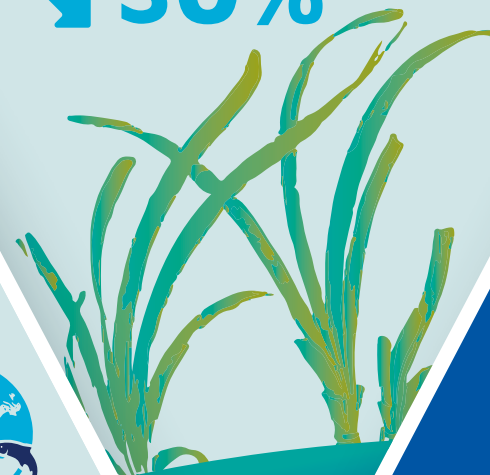
of the marine species known in
the world and 17,000 marine species
in just 0.3% of the ocean volume.

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



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)

30%



At least **78** marine species
and **168** coastal
endangered species



1,000

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



41%

decrease in marine predators
(including mammals)



Only **9%**

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

48%

of wetland habitats have
disappeared since 1970

78%

of assessed fish stocks
are overexploited



Loss of biodiversity

means loss of services rendered
by ecosystems: protection against
erosion, water purification, flood
and drought mitigation, food supply,
pollination, carbon storage, cultural
and recreational services,...



#6 A contrasted Mediterranean between the South and the North

Unemployment

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



Med-EU =

60%

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



Migratory crossroads:

3 world records

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.



4 of the 5

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



70%

of the population in cities

30%
in rural areas



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.



NORTH

SOUTH

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.



314

million inhabitants in the South

198

million in the North



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).

An aerial photograph of a large red and white oil tanker ship moving through the turquoise waters of the Mediterranean Sea. The ship is leaving a massive, dark, and opaque trail of oil pollution behind it, which spreads across a large area of the water's surface. The ship itself has multiple decks with various structures and equipment visible. The overall scene highlights the severe environmental impact of maritime oil transport.

#

7 The Mediterranean subject to multiple forms of pollution

Soil, Water and Sea Pollution



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



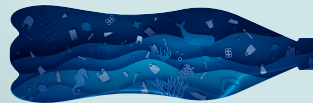
2/3

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

Air Pollution



Up to over **100** µg/m³
in some Med areas
World average (39.6 µg of PM_{2.5} m³)
EU average (14.2 µg of PM_{2.5} m³)



The Med is one of the world's most affected regions. 50% of marine litter on the seabed is plastic. Concentration of microplastics on the surface of the Med Sea exceeds the maximum threshold and reaches more than 64 million floating particles per km²



Use 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



184

million tonnes of solid waste/year (i.e. 370kg/capita/year, with low recycling rates)



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



#8 Act : profound changes for sustainable development

1

Enforcement

Enforce common and agreed objectives and commitments

2

Institutional capacity

Raise the political profile of environmental institutions and issues

3

Local action

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

4

Transition to a sustainable future

Upgrade and diversify the policy mix

5

Networking and co-construction

Develop permanent collaborative frameworks

6

Foresight

Anticipating the transformation of coastal and marine areas

7

Useful knowledge

Put existing knowledge to use

8

Monitoring

Implement, sustain and expand common monitoring frameworks

9

Transparency

Document and communicate the stakes of environmental degradation and socioeconomic inequalities

10

Learning by doing

Learn from experience sharing and peer review mechanisms for adaptive policies





#9 The story of the State of the Environment and Development in the Mediterranean



2

- 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.



3

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



4

How ?

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



An aerial photograph of a historic city, likely Valletta, Malta, featuring a prominent white dome and a harbor. The image is overlaid with a large white number '10' and a blue hashtag symbol '#'. The text 'Building together' is in white, and 'Mediterranean's future' is in blue. A blue and grey geometric graphic is on the right side.

#10 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



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