



Sustainable Food Systems: The case of the Mediterranean Diet through the Ecological Footprint lenses



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A KNOWN ADAGIO

You cannot manage
what you do not
measure





BUT WHAT EXACTLY SHOULD BE MEASURED?



**Looking at the Earth as a single system:
Which direction are we going?**

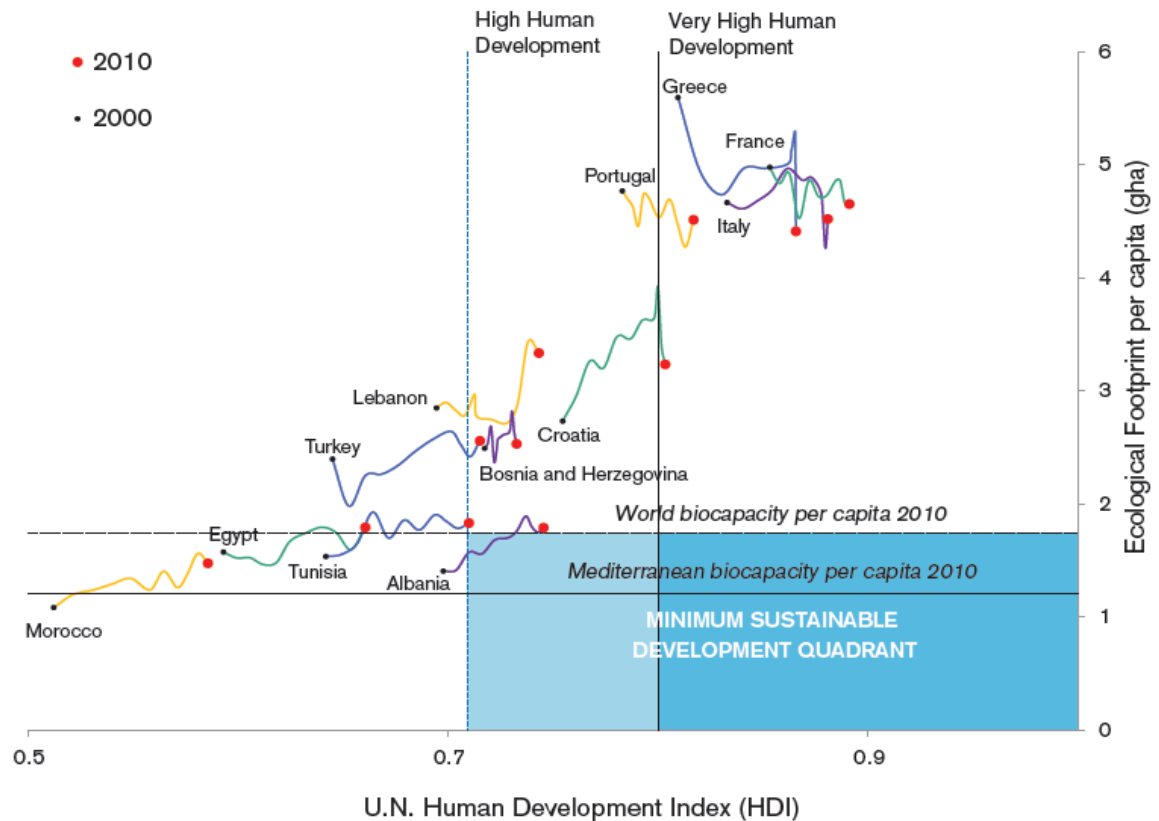




AN OVERARCHING GOAL FOR SUSTAINABILITY

- Robert Costanza: “A prosperous, high quality of life that is equitably shared and sustainable.”
- MSSD: “ensuring a high quality of life for Mediterranean people without further degrading the environment and within the carrying capacity of regional ecosystems.”

Mediterranean Countries, Ecological Footprint and HDI, 2000–2010





AN ECOLOGICAL MEGA MATRIX FOR COUNTRIES

- The Ecological Footprint is an environmental accounting tool that identifies the extent to which human activities exceed **two types of environmental limits**:
 - resource production
 - waste absorption

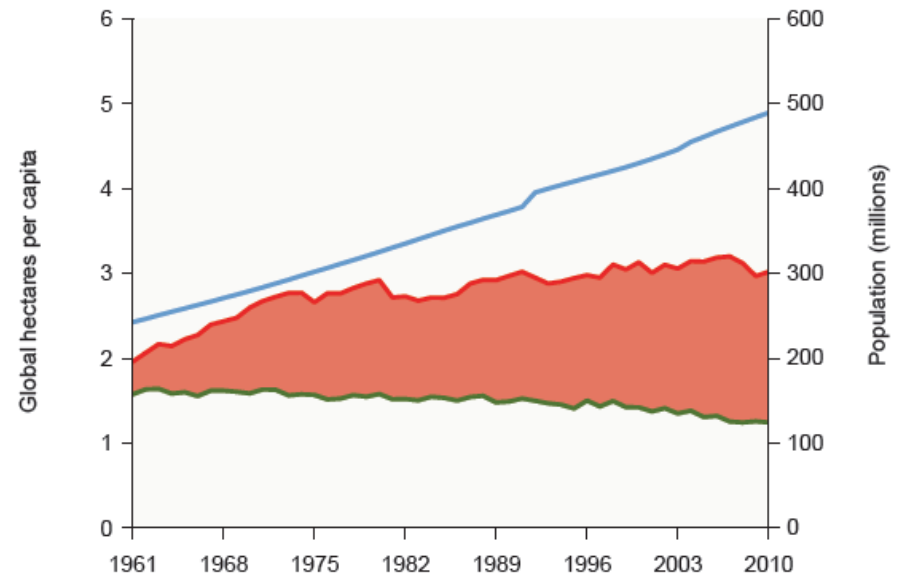




Mediterranean's Ecological Footprint and biocapacity, 1961-2010

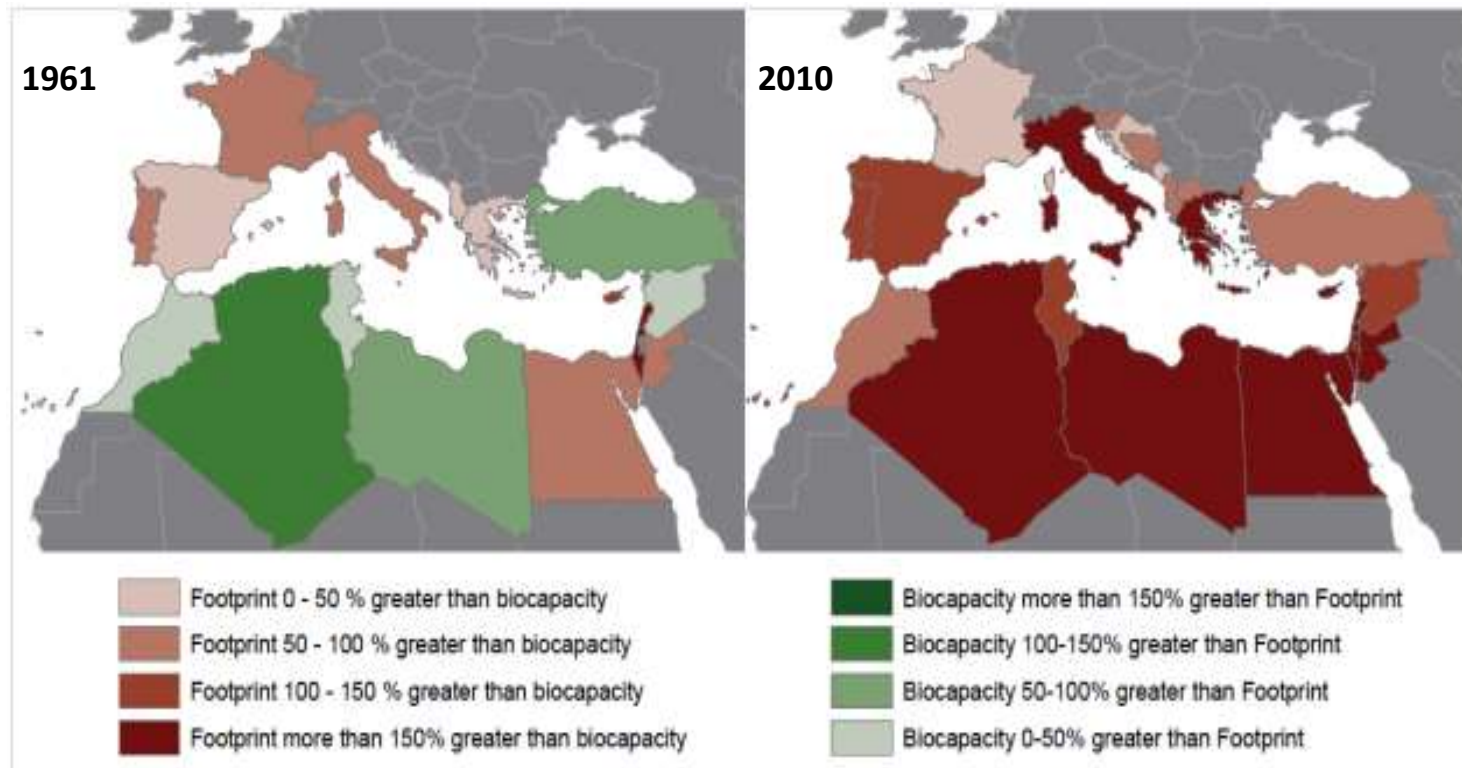
- Ecological Footprint of consumption (EF_c) grew by 54%, mainly due to the increase in the carbon Footprint component (+158%)
- Biocapacity (BC) decreased by 21%: population growth outstripped productivity gains
- Regional BC now supplies $\approx 41\%$ of the resources and services demand

Mediterranean Region





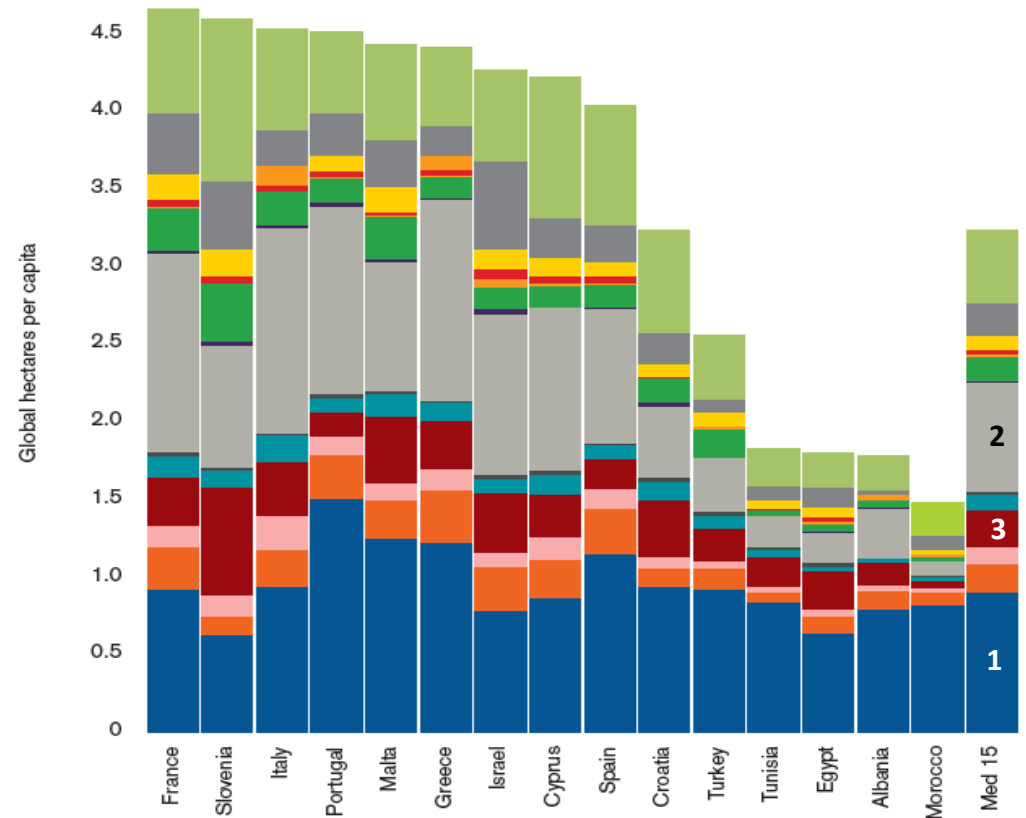
ECOLOGICAL BALANCES FOR THE MEDITERRANEAN REGION





LEVERAGE POINTS

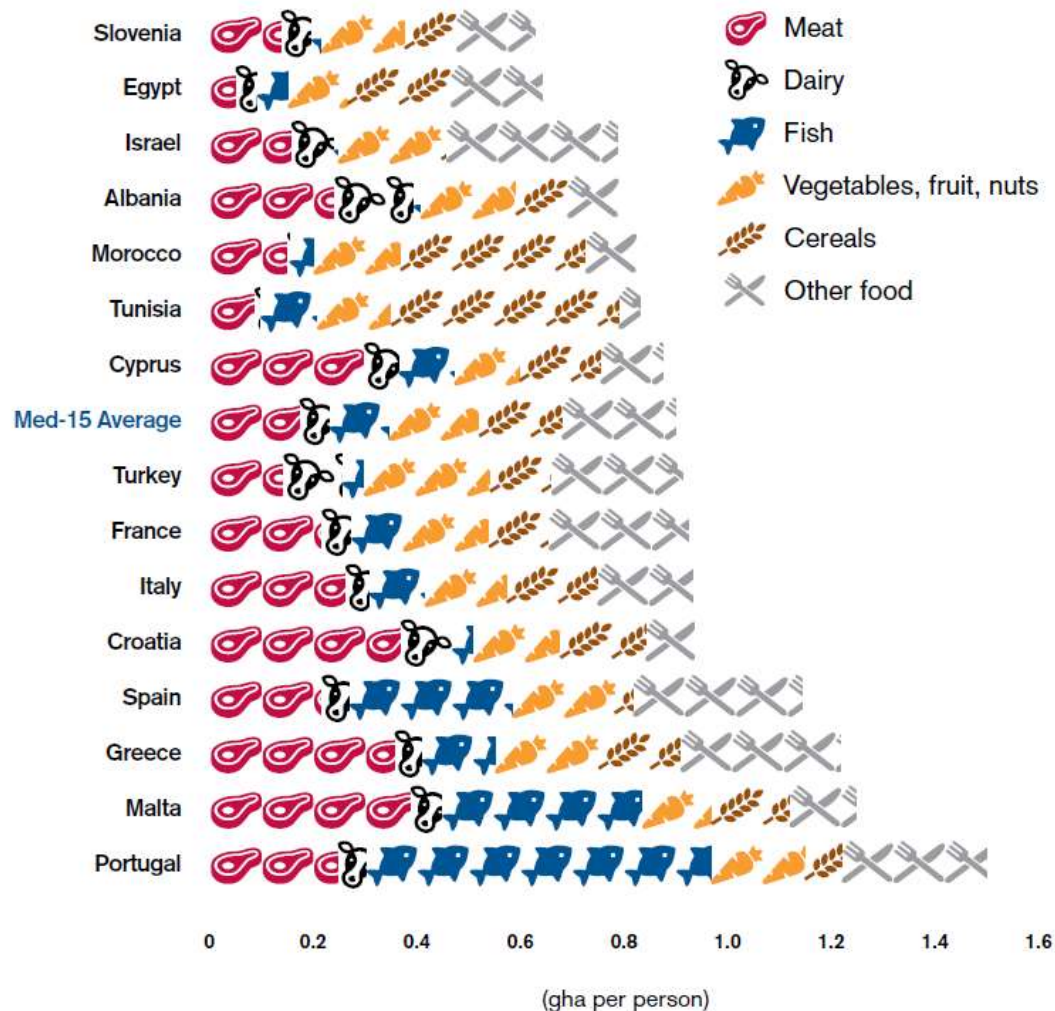
- Shifting towards SCP entails increasing resource efficiency along the life cycle of products and promoting sustainable lifestyles and consumption patterns.
- Footprint analysis highlights both the biggest **challenges** facing a region and **opportunities**: areas in which policy changes can have the largest impact.





FOOD FOOTPRINT OF MEDITERRANEAN COUNTRIES, IN 2010

- Egypt (and Slovenia) high calorie provision and low Footprint is due to low protein diet and high crop productivity (decreasing dependence on imported food)
- Portugal (and Malta) high Footprint is due to a protein-intensive diet rich in fish (44% of food Footprint) and meat products (16%).



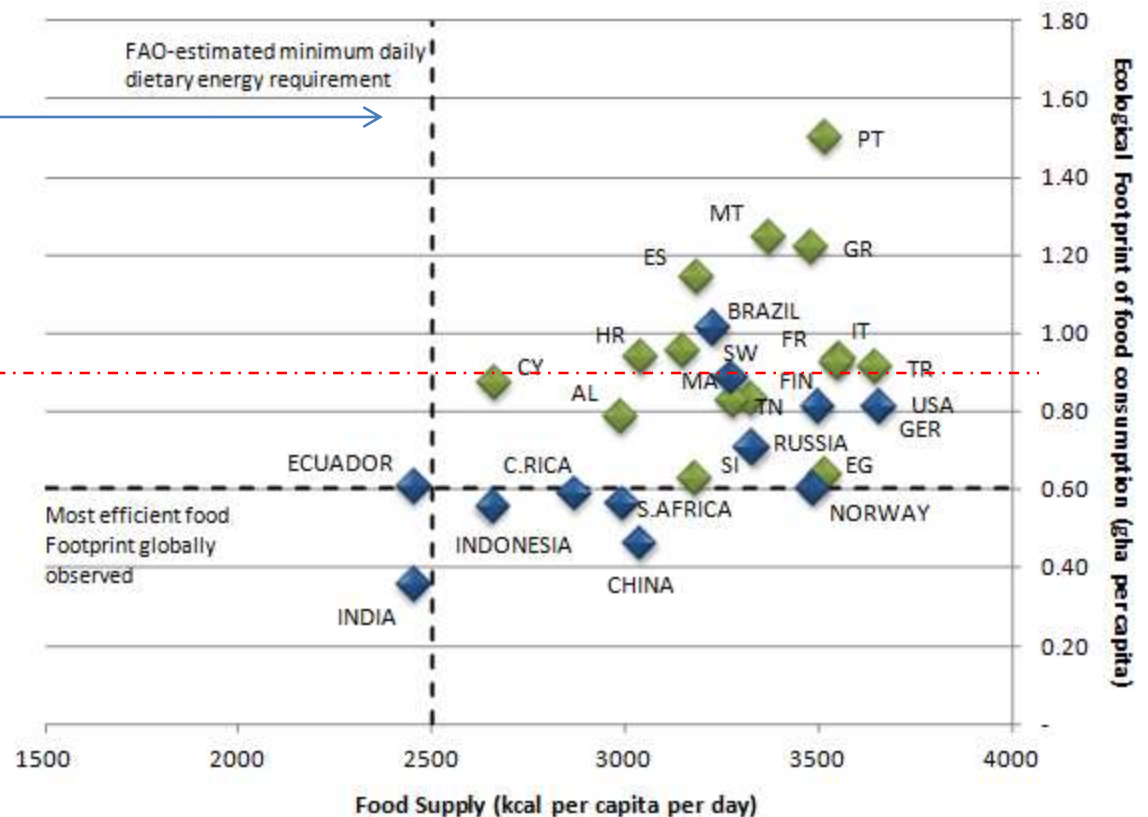


HOW MEDITERRANEAN COUNTRIES COMPARE TO OTHER COUNTRIES?

FAO-estimated minimum daily dietary energy requirement

Med-15 food Footprint

Most efficient food Footprint globally observed





- Does the Mediterranean diet have a high environmental impact?
- **Are Mediterranean people still eating the Mediterranean diet?**

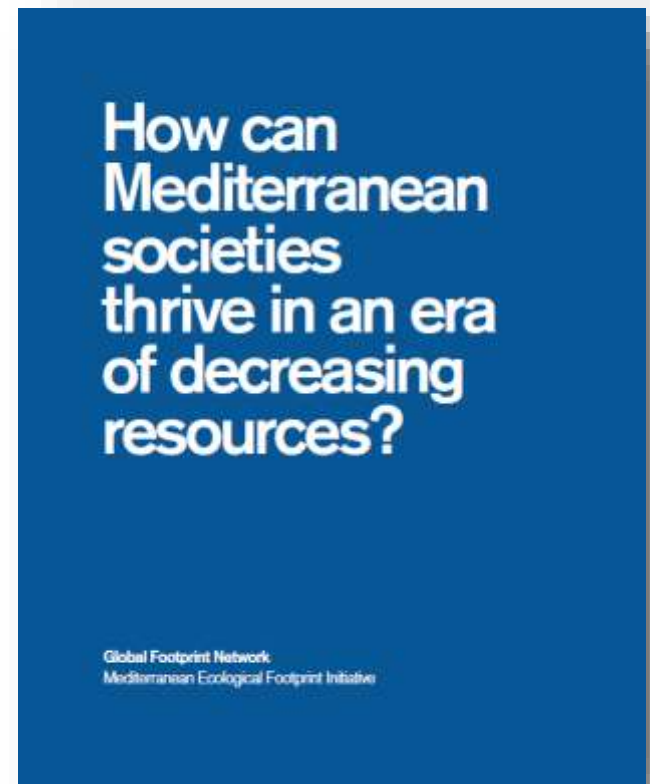


CONCLUSION

- **Population growth** , **industrial development** , **globalization** and **urbanization** have affected Mediterranean food production and consumption patterns and are likely to increase pressure on provisioning ecosystem services.

SOLUTIONS

- Thus, future food security depends on
 - **efficiency improvements**,
 - reduction of **food waste** throughout the whole food chain
 - promotion of **healthier** , more **balanced** and **less Footprint-intensive diets**.





Thank you

For more information :

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Mediterranean Information Office
 for Environment, Culture & Sustainable Development
 The Mediterranean NGO Federation for Environment and Development