



## **Physical and financial limits to resource access and utilization in Mediterranean economies**



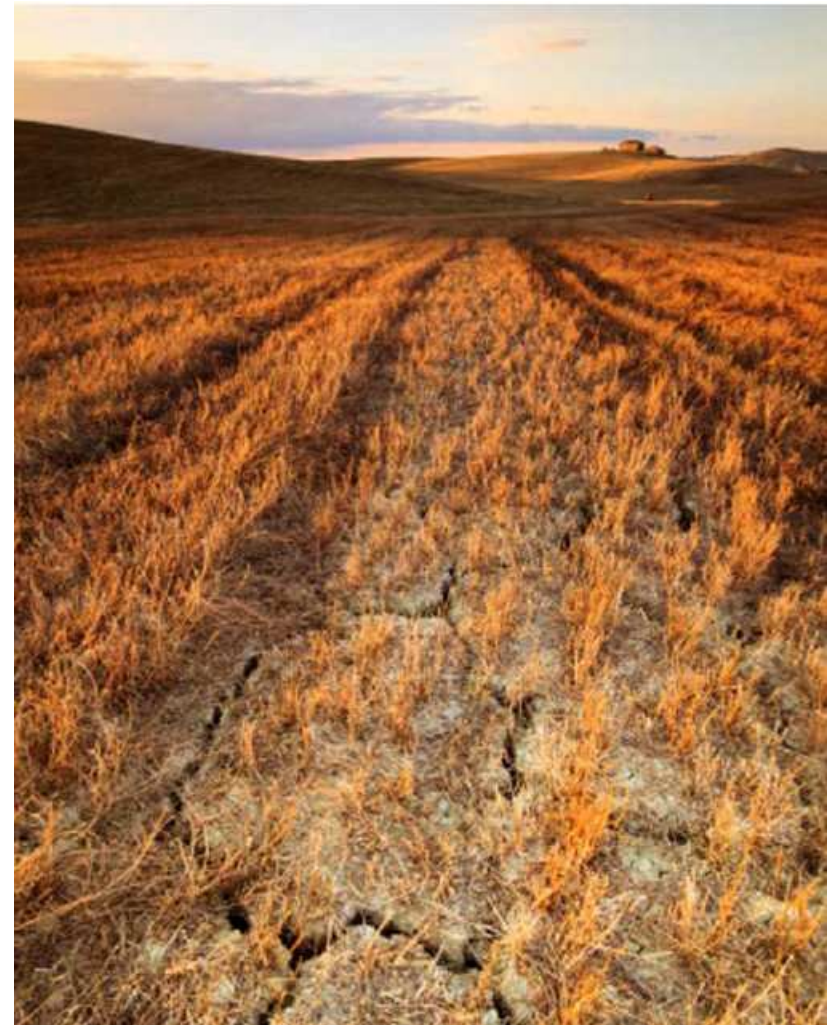
Alessandro Galli, PhD  
Expert Group Meeting on the Global  
Sustainable Development Report  
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## OUR ARGUMENT

In a world characterized by the existence of physical limits to the availability of global ecological assets, a systemic risk may exist for Mediterranean economies due to the concurrence of:

- 1) ecological asset scarcity
- 2) increasing resource prices
- 3) challenging financial situations

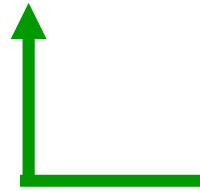




## ECOLOGICAL FOOTPRINT: ASSESSING COUNTRIES' ECOLOGICAL BALANCE SHEET

### SUPPLY = BIOCAPACITY

How much bioproductive area is available to us?



### DEMAND = ECOLOGICAL FOOTPRINT

How much bioproductive area do we **use**?

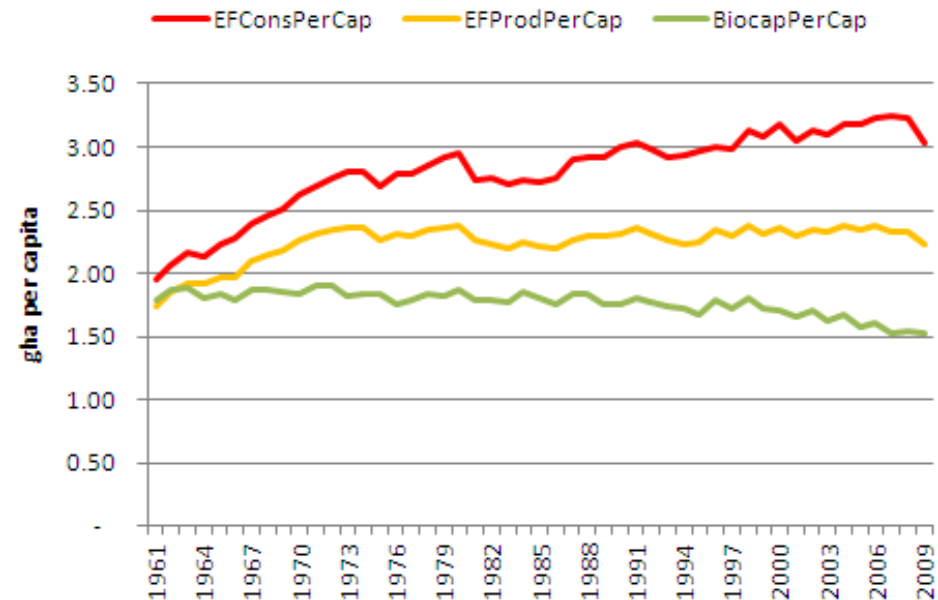
$$EF_C = EF_P + (EF_I - EF_E)$$





## Mediterranean's Ecological Footprint and biocapacity, 1961-2009

- Ecological Footprint of consumption ( $EF_C$ ) grew by 55%, mainly due to the increase in the carbon Footprint component (+185%)
- Biocapacity ( $BC$ ) decreased by 17%: population growth outstripped productivity gains
- Regional  $BC$  now supplies half of the resources and services demand
- $EF_p$  exceeded  $BC$  since early '60s
- Dependence on imports is 26% of the total demand (up from 11% in 1961)

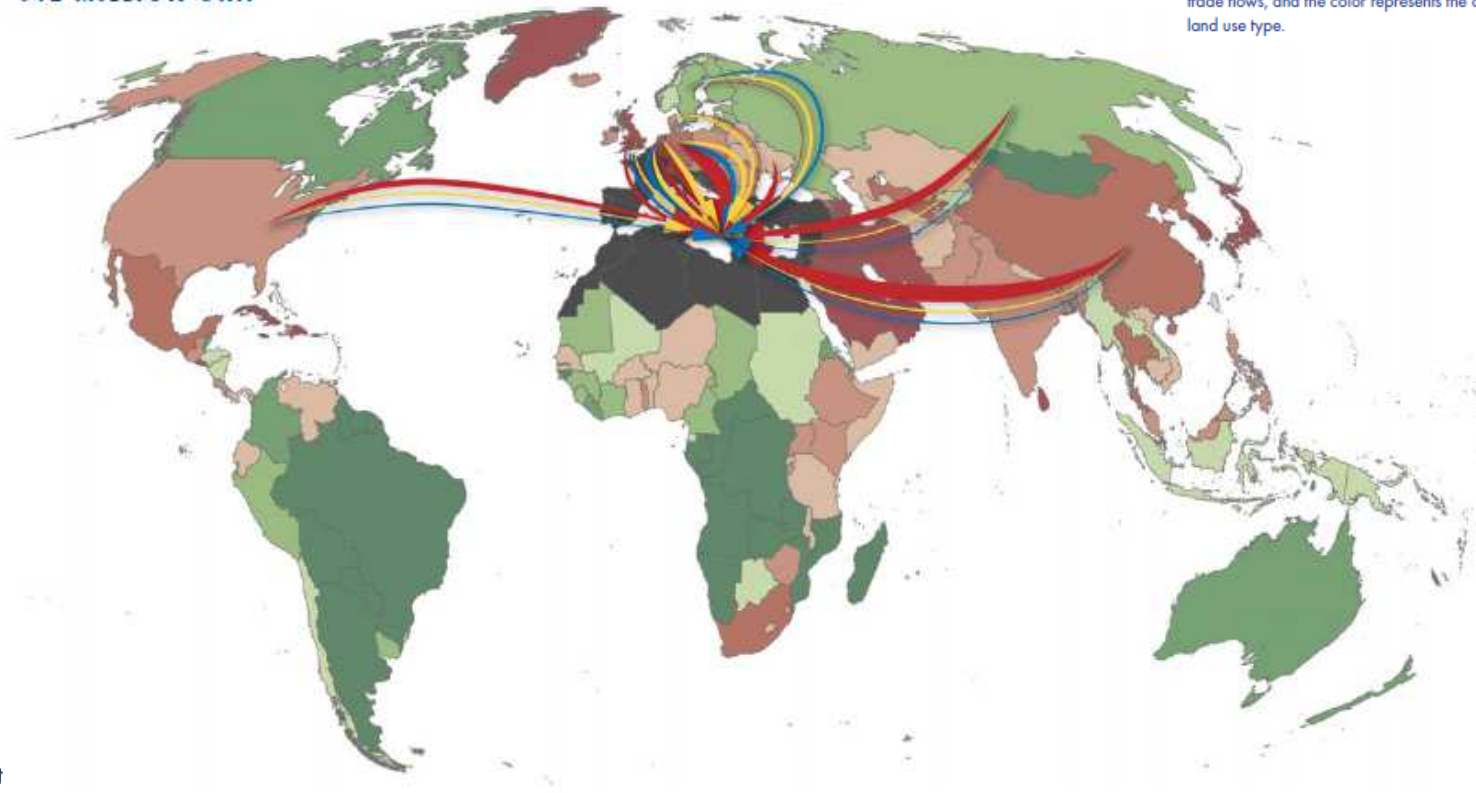


$EF_p$  represents the biocapacity used for producing GDP within a country while  $EF_C$  represents the biocapacity embedded in all commodities, goods and services consumed by the residents of that country.



## WHO'S BUYING & WHO'S SELLING

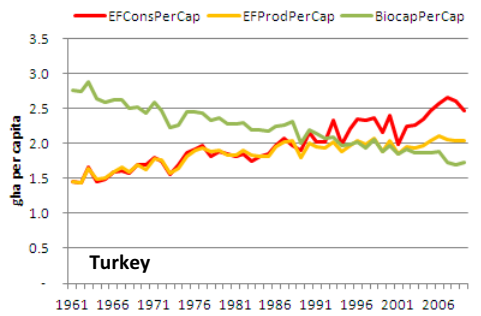
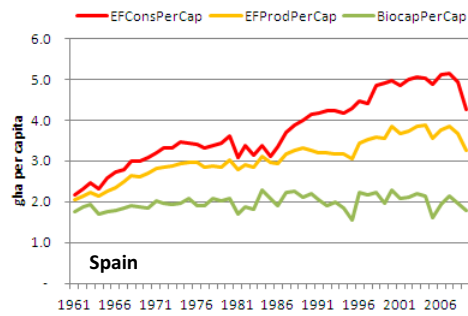
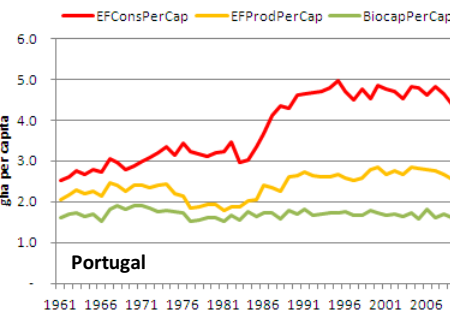
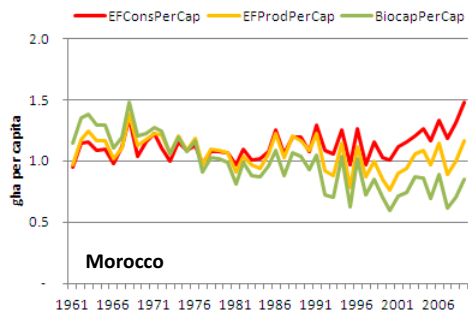
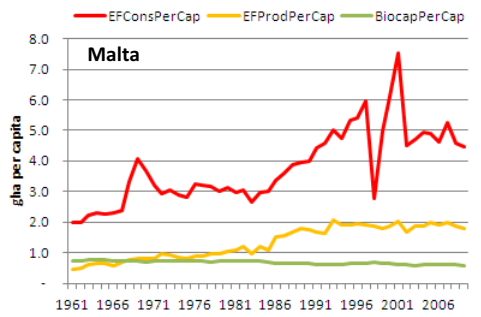
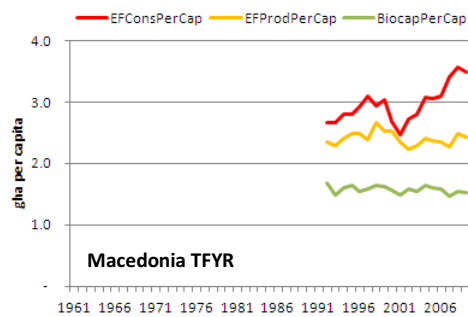
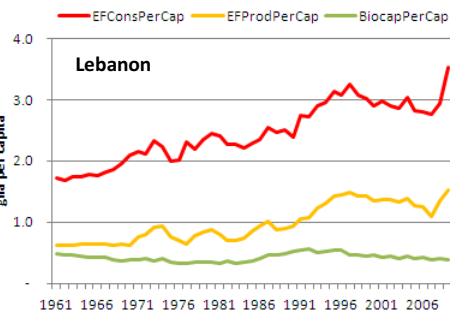
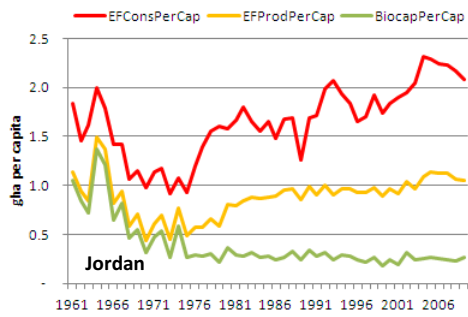
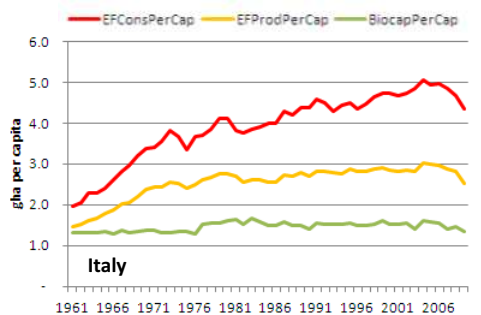
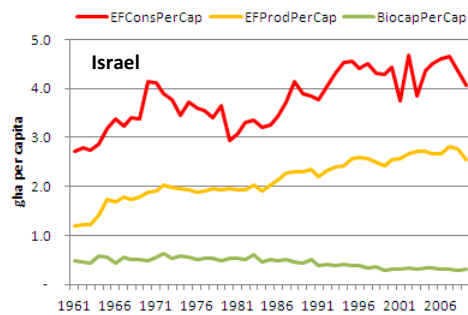
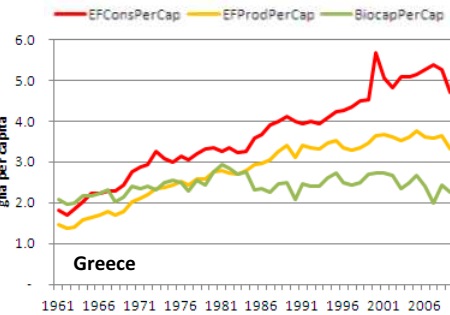
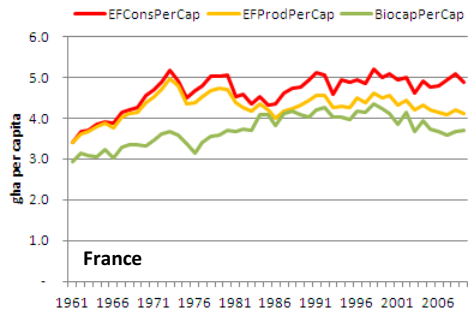
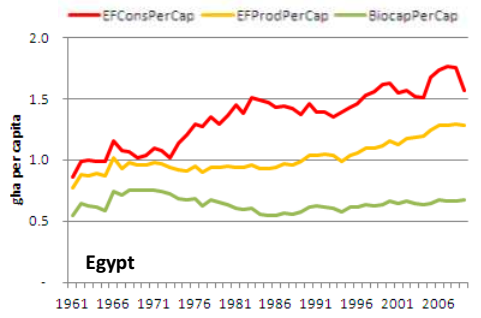
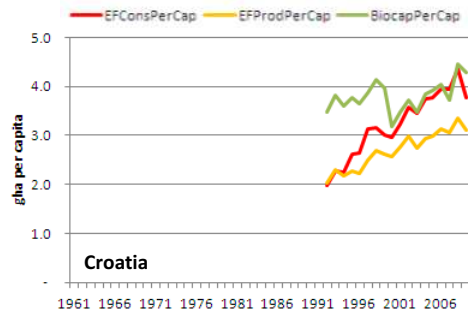
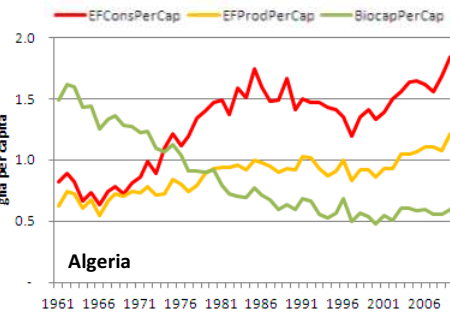
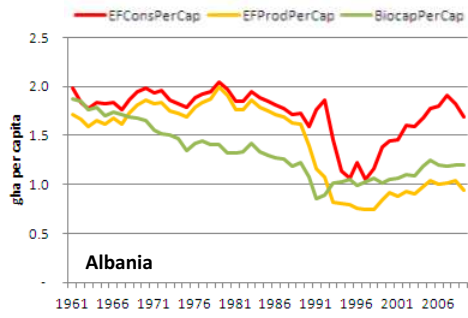
**ECOLOGICAL FOOTPRINT  
IMPORTS IN 2008**  
142 MILLION GHA



### ECOLOGICAL FOOTPRINT

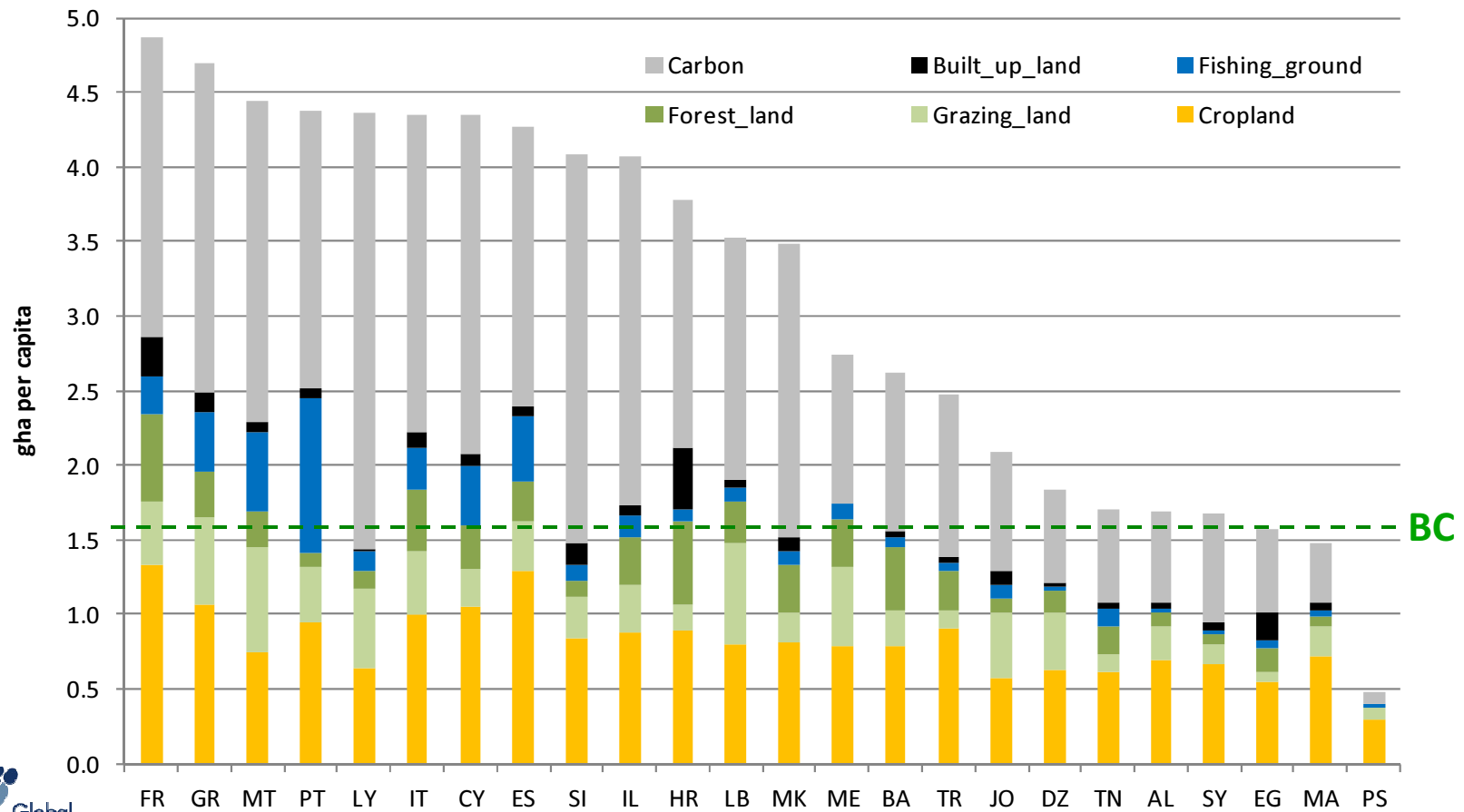
- Carbon
- Fishing Grounds
- Cropland

The size of the arrows is a function of the extent of the trade flows, and the color represents the corresponding land use type.





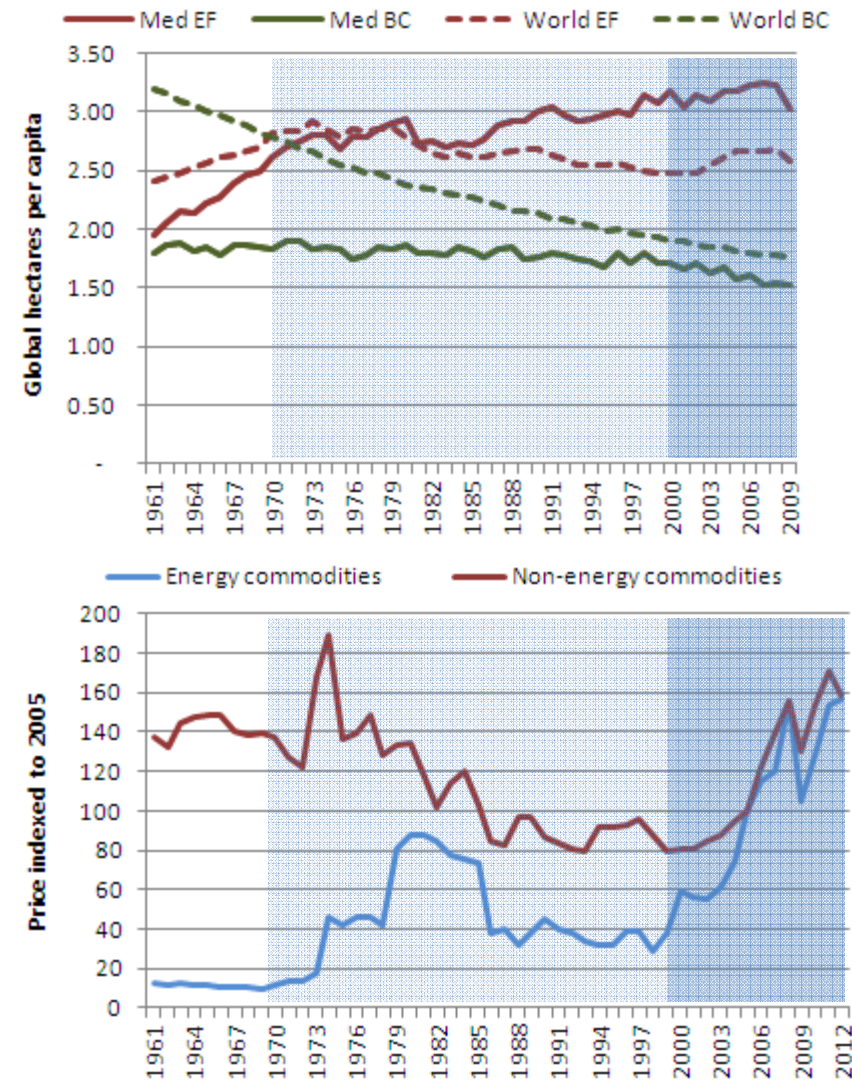
## Ecological Footprint of Mediterranean countries, by component, 2009





## PHYSICAL AND FINANCIAL LIMITS TO RESOURCE ACCESS & UTILIZATION

- Today, access to ecological resources and services is subject to “physical limits” (the total amount globally available) and “economic limits” (the ability of countries to purchase them).
- Today, **ecological deficits are coupled with fiscal deficits** in many Mediterranean countries.
- As countries become more dependent on external ecosystems, they expose their economies to **price volatility and possible supply disruption**.

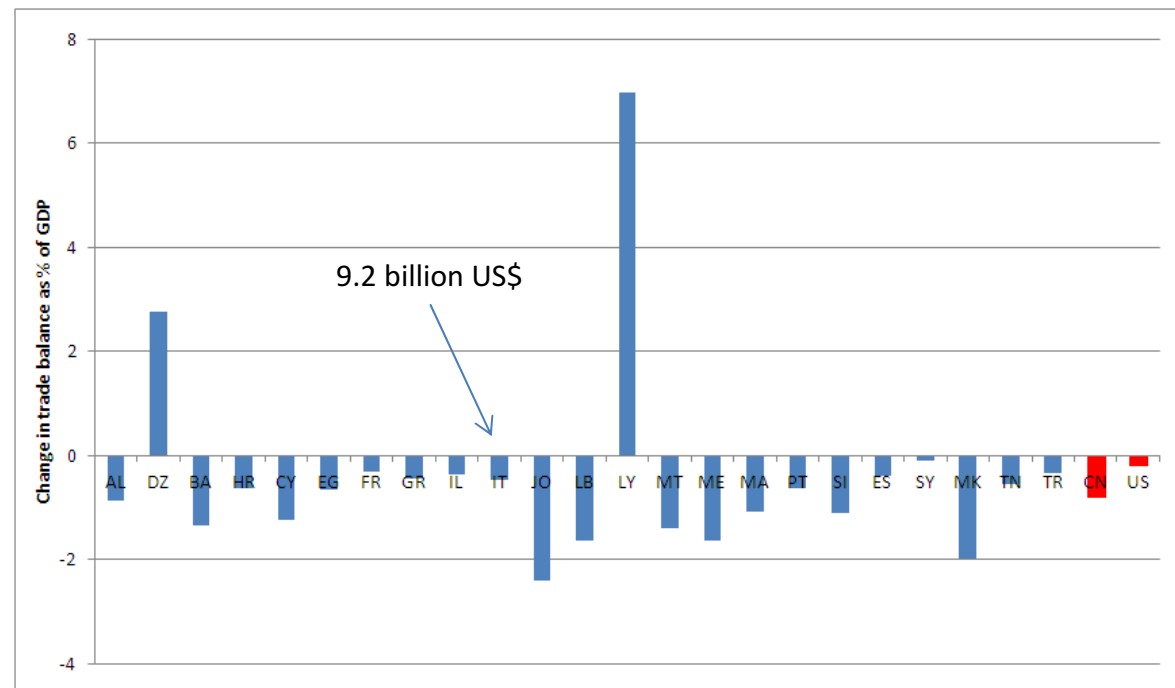






## Natural Resource Risks in Mediterranean countries

- Mediterranean countries came to rely on imports of natural resources during a time of relative abundance but this time is over; they now have to face rising and unpredictable import bills while facing economic downturn.
- Trade related natural resource risks have been growing due to increasing price volatility associated with global scarcity.
- Large carbon footprints also represent a risk: global warming, heavy reliance on fossil fuels that are more expensive, inefficient technologies.

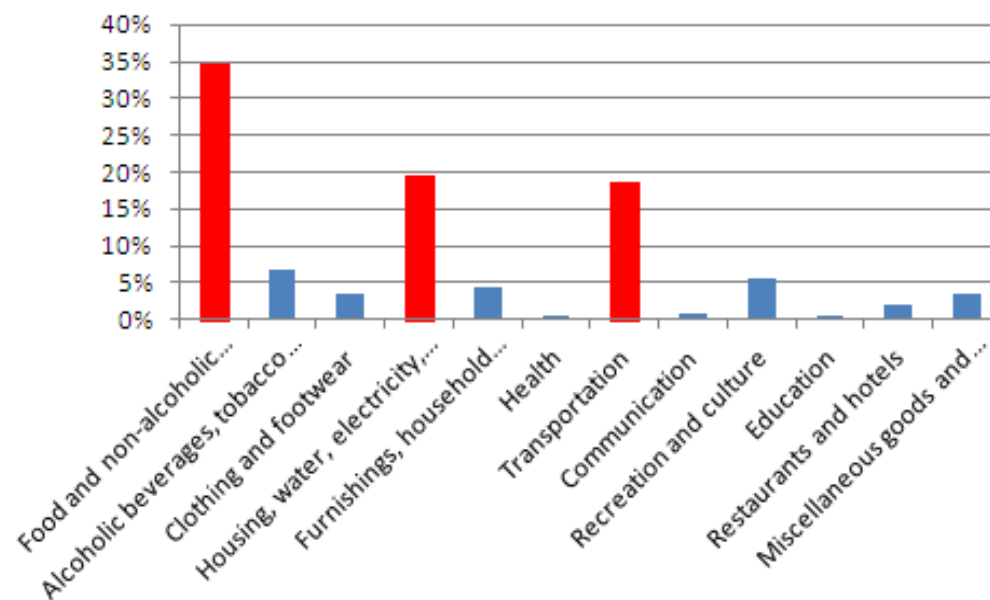


Effect on the trade balance of a 10% rise in natural resource prices



## CONCLUSIONS

- **Liquidation Economies:** Med economies are increasingly dependent on resources to operate.
- **Price volatility the new normal:** resource sector is characterized by supply disruption, volatile prices and rising competition over access to resources.
- **Ecological assets and economic performance are linked:** resource management is a key factor in reducing economic risk and improving competitiveness.
- **Hotspots :** key drivers of resource dependency can be identified and easy wins selected (*SCP, decoupling, absolute consumption levels*) to reverse ecological deficit *and* help societies thrive.





# Thank you

For more information please visit:

<http://www.footprintnetwork.org/med>

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