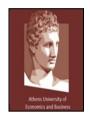
Sustainable Blue Growth:

UN Sustainable Development Solutions Network Greece

PROF. DR. PHOEBE KOUNDOURI (BA, MPHIL, MSc, PHD CAMBRIDGE)

Personal Webpage: www.icre8.eu/founder-scientific-director



Professor and Director of ReSEES Laboratory, School of Economics, ATHENS UNIVERSITY OF ECONOMIC AND BUSINESS (www.aueb.gr)



Director of Research, ICRE8: INTERNATIONAL CENTER FOR RESEARCH ON THE ENVIRONMENT AND THE ECONOMY (www.icre8.eu)



Senior Research Fellow, CCCEP,
LONDON SCHOOL OF ECONOMICS w.cccep.ac.uk/people/)



Co-Chair, United Nations Sustainable Development Solutions Network - Greece (<u>www.unsdsn.gr</u>)

Agenda 2030 for Sustainable Development United Nations Sustainable Development Solutions Network

SDSN was launched in 2012 by UN Secretary General Ban-Ki Moon, in order to mobilize global scientific and technological expertise to promote practical problem solving for sustainable development







































Sept. 7 - 8, 2017 | Athens, Greece

3rd SDSN Mediterranean Conference

Official Launch of



Co-Chairs:

Prof. Phoebe Koundouri **Prof. Andreas Papandreou**

Keynote Speaker: Prof. Jeffrey D. Sachs





International Centre for Research on the Environment and the Economy (ICRE8)

www.icre8.eu



University of Athens Political Economy of Sustainable Development Lab (PESD)

http://pesd.econ.uoa.gr

Website: www.unsdsn.gr



Prof. Phoebe Koundouri

Prof. Andreas Papandreou

Leadership Council

Business, Politicians, NGOs, Policy Making

Youth Section

Christina Christoforou Livani

Contextualizing the SDGs for the Mediterranean Region:

Regional priorities for the Mediterranean: How do they translate to SDGs?

1. Ensuring sustainable development in marine and coastal areas



2. Promoting resource management, food production and food security through sustainable forms of rural development





3. Planning and managing sustainable Mediterranean cities



4. Addressing climate change as a priority issue for the

Mediterranean

5. Transition towards a green and blue economy



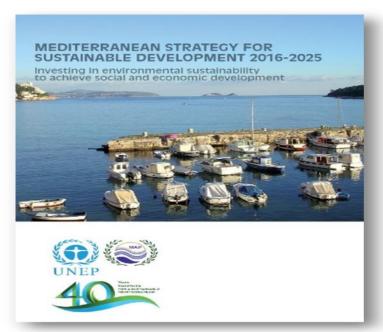


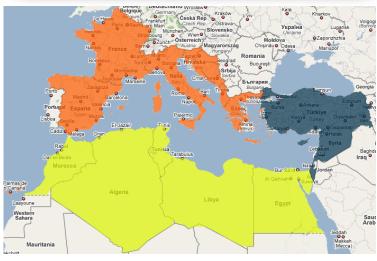


6. Improving governance in support of sustainable development









2

Where do the Mediterranean countries stand relative to the SDGs?

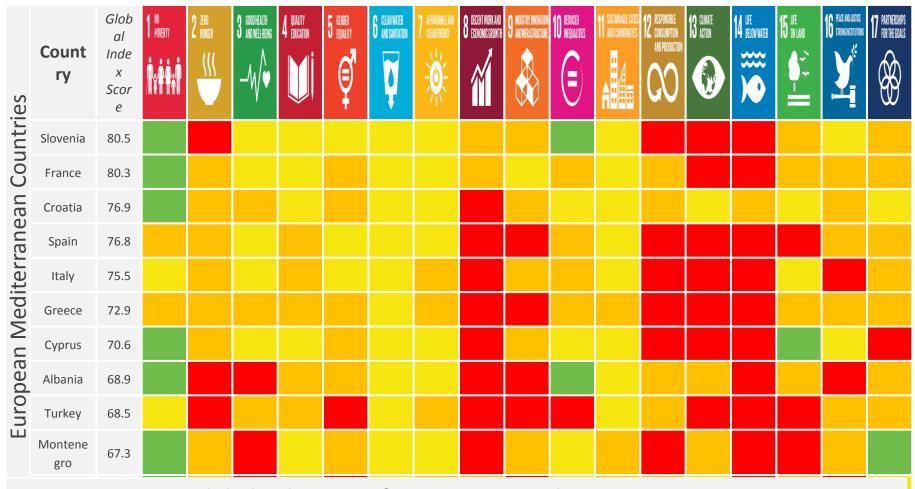
- 2017 SDG Indicator Dashboard and report.
- The report generates "rough grading" for all countries to draw attention to the most urgent SDG related challenges facing each country for each SDG.



Where do the Mediterranean countries stand relative to the SDGs?

Country	2017 Global SDG Index Score	Country	2017 Global SDG Index Score
Czech Republic	81.9	Cyprus	70.6
Slovenia	80.5	Israel	70.1
France	80.3	Albania	68.9
Hungary	78.0	Russia	68.9
Belarus	77.1	Algeria	68.8
Croatia	76.9	Tunisia	68.7
Slovakia	76.9	Turkey	68.5
Spain	76.8	Montenegro	67.3
Poland	75.8	Morocco	66.7
Italy	75.5	Jordan	66.0
Moldova	74.2	Bosnia & Herzegovina	65.5
Romania	74.1	Lebanon	64.9
Greece	72.9	Egypt	64.9
Ukraine	72.7	Syria	58.1
Bulgaria	72.5	Iraq	56.6

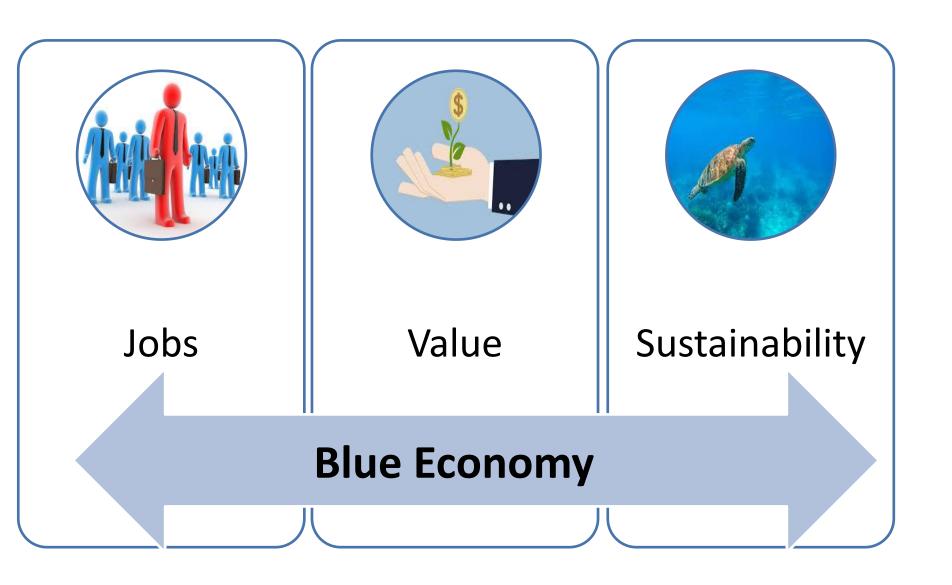
European – Mediterranean Countries 2017 SDG Index Score



AVERAGE Global Index Score for European Mediterranean Countries: 73.1



A sea of shared challenges and opportunities





European Blue Growth Initiative

Seas & oceans are drivers for the European economy and have great potential for innovation & growth.



Blue Growth is the long term strategy of the EU to support sustainable growth in the marine and maritime sectors: achieving the goals of the Europe 2020 strategy for smart, sustainable and inclusive growth. It relates directly to SDG 14 of Agenda 2030.

The 'blue' economy represents:

- 5.4 million jobs
- gross added value of almost €500 billion a year

while further growth is possible in a number of areas which are highlighted within the strategy.

European Blue Growth Initiative

- 1. Develop sectors that have a high potential for sustainable jobs and growth, such as:
- a. <u>aquaculture</u>; b. <u>coastal tourism</u>; c. <u>marine biotechnology</u>; d. <u>ocean energy</u>; e. <u>seabed mining</u>
- 2. Essential components to provide knowledge, legal certainty and security in the blue economy
- a. marine knowledge to improve access to information about the sea;
- b. <u>maritime spatial planning</u> to ensure an efficient and sustainable management of activities at sea; c. <u>integrated maritime surveillance</u> to give authorities a better picture of what is happening at sea.
- 3. Sea basin strategies to ensure tailor-made measures and to foster cooperation between countries:
- a. <u>Adriatic and Ionian Seas</u>; b. <u>Arctic Ocean</u>; c. <u>Atlantic Ocean</u>; d. <u>Baltic Sea</u>; e. <u>Black Sea</u>; f. <u>Mediterranean Sea</u>; g. <u>North Sea</u>

SDSN Greece Research:







Hosting Institutions

Achieving Natural Resources, Economic, Social Sustainability by developing scientific and methodologically sound approaches to recognizing, demonstrating and capturing the Total Economic Value of natural resources and other public goods important for social welfare, integrating them in sustainable management tools and policy making, while recognizing the interdisciplinary nature of the challenge.





SDSN Greece Research

- 40 million Euro of research funding
- 500 published peer-reviewed research papers and books
- Funding received from the European Commission (FP4, FP5, FP6, FP7, Horizon2020), DG Environment, Numerous Governments and the Private Sector
- Research influenced policy & attracted mass media coverage all over the world







Stages of Analysis

Approaches

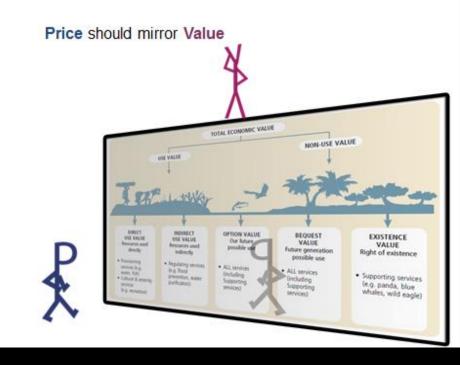
- Mathematical Model of People's Behavior, NR stocks & flows
- Empirical/Econometric Modeling
- Empirical Models Application & Estimation

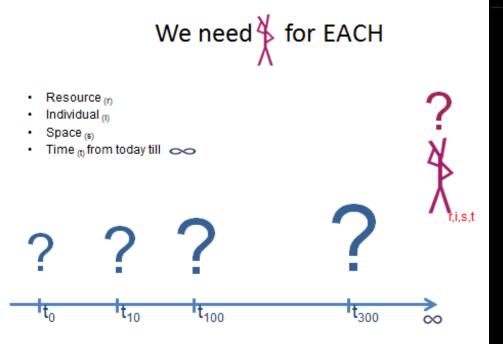
- Natural Resources, Socio-Economic, Institutional Characterization
- Data Collection

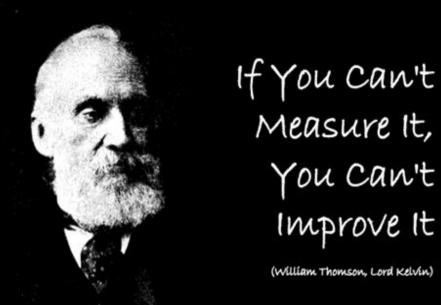
- Decision SupportTools
- PolicyRecommendations

Qualitative and Quantitative Analysis of Results

Walue Explicit But for natural resources supply is uncertain and demand is hidden Demand Q* Quantity







Methods to elicit Economic Value of non-market Goods & Services

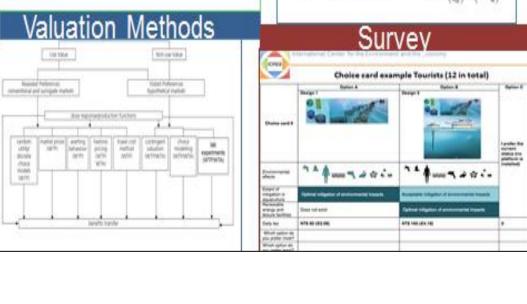
Mathematical Modeling

$$\begin{split} y_j &= f(\mathbf{x}_j^v, \mathbf{x}_j^w, A_j) & \max_{\substack{v \in I_1 = V_1, v \in I_2 \\ v \in I_2 = V_1}} V_{v,v,T}^v = V_{v,v,T}^v = V_{v,v,T}^v = V_{v,v,T,v}^v. \\ & \text{for } 1 = x \\ & \text{for } 1$$

Econometric Modeling

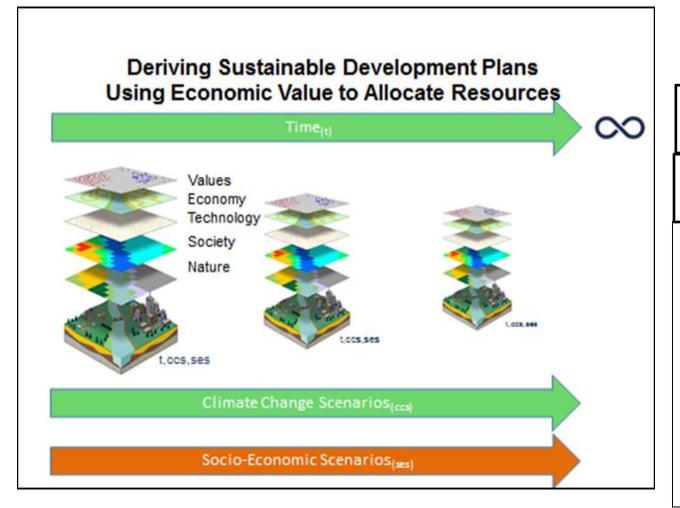
$$\begin{split} z_1 &= 2.341 + 0.657 p_{CV} - 0.321 w_{LV} \\ &= 0.1070 w_{N} - 0.005 w_{RE} \\ &= 0.0014 w_{N} + 0.617 x_{N} + w_{N} + w_{N} \\ &= 0.0014 w_{N} + 0.617 x_{N} + w_{N} + w_{N} \\ &= 0.0014 w_{N} + 0.617 x_{N$$

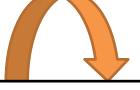
Choose Optimal Allocation of Resources: DSS: GIS based CBA under CC and SE Scenarios





Implementing Social Welfare Increasing Sustainable Solutions





Nature Based Solutions

Infrastructural Solutions

Socio-Economic Tools

Pricing

Tradable permits

Quotas

Taxes/subsidies

Charges

Direct Controls

Educational/Awareness

Campaigns

Voluntary Agreements

Legal Instruments

Investments





Our Books



www.icre8.eu





SDSN Greece Focus



1) Natural Capital Valuation: Sustainable Investment Allocation



















Indicative Projects















2) Climate Change: Mitigation and **Adaptation Policies**









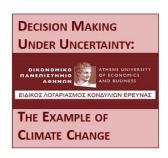








Indicative Projects













3) Sustainable Development in Times of Crisis

























Indicative Projects











Science and Management of Intermittent Rivers and Ephemeral Streams aqua librium



Sustainable Energy and Resource Management

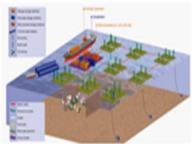
OCEANS of TOMORROW, EC-DG Research-FP6; Budget: 20,000,000





Development of a wind- wave power open-sea platform equipped for hydrogen generation with support for multiple users of energy

http://www.h2ocean-project.eu/



MODERN CONCRET COMPANY DOLDS, ROTHLAND OR



Innovative multi-purpose offshore platforms: planning, design and operation http://www.mermaidproject.eu/





Modular multi-use deep water offshore platform harnessing and servicing Mediterranean, subtropical and tropical marine resources

http://www.troposplatform.eu/



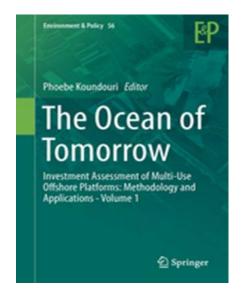
Innovative Multi-purpose offshore platforms: planning, design & operation













The BlueBRIDGE Project –

Addressing the Blue Societal Challenge H2020. Budget: 10,000,000 euro

Sustainable Energy and Resource Management



Building Research environments fostering Innovation, Decision making, Governance and Education to support Blue growth



Many Past & Ongoing Marine Projects Below List of Ongoing

- THESEUS: Innovative technologies for safer European coasts in a changing climate (FP7)
- OCEANS OF TOMORROW: Multi-Use Offshore Platforms for Sustainable Blue Growth (FP7)
- **BLUEBRIDGE**: Building Research environments fostering Innovation, Decision making, Governance and Education to support Blue growth (H2020)
- RECONNECT: Regional cooperation for the transnational ecosystem sustainable development (INTERREG)
- MARINE SPATIAL PLANNING (Ministry of Env, Govt of Cyprus)
- FISH ON A CHIP: Innovative Technologies at the Service of the Aquaculture,
 Fisheries & Research Sectors (H2020)
- **COASTAL:** Collaborative Sea Integration Platform (H2020)
- **BLUEGREENGOV:** Blue-green integrated governance tools for growth (H2020)





Our Projects









