### An introduction to the international, European and national legal framework of the sea



MSc Program: Management of Terrestrial and Marine Resources, Biology Department, University of Crete, 19 January, 2021, Heraklion, Crete, Greece











### By: Christos Arvanitidis<sup>1</sup>, Eleni Hatziyanni<sup>3</sup>, Vassiliki Vassilopoulou<sup>2</sup>, Panayotis Panayotidis<sup>2</sup>, Vasilis Lykousis<sup>2,</sup> Antonios Magoulas<sup>1</sup>, Suzanne J Boyes<sup>4</sup> & Michael Elliott<sup>4</sup>, Eva Chatzinikolaou<sup>1</sup>, Tilemaxos Bourtzis<sup>5</sup>

<sup>1</sup>Institute of Marine Biology, Biotechnology and Aquaculture, LifeWatch ERIC, Seville, Andalusia, Spain
<sup>2</sup>Institute of Oceanography, Hellenic Centre for Marine Research, Crete
<sup>3</sup>Region of Crete
<sup>4</sup>Institute of Estuarine and Coastal Studies, University of Hull
<sup>5</sup>European Centre for Environmental Research and Training, Athens





# **Marine legislation**

"The EU is a pre-eminent player in sustainable development, adopting more than 200 pieces of legislation that have direct repercussions for marine environmental policy and management. Over five decades, measures have aimed to protect the marine environment by tackling the impact of human activities (**continuity**), but maritime affairs have been dealt with by separate sectoral policies without fully integrating all relevant sectors (**fragmentation**). Such compartmentalisation has resulted in a patchwork of EU legislation and resultant national legislation leading to a piecemeal approach to marine protection (**additive**). These are superimposed on international obligations emanating from UN and other bodies and are presented here as complex '**horrendograms**' showing the complexity across vertical governance. These horrendograms have surprised marine experts despite them acknowledging the many uses and users of the marine environment. Encouragingly since 2000, the evolution in EU policy has progressed to more holistic directives....."

Boyes & Elliot (2014) Marine Pollution Bulletin 86: 39-47



# **Marine legislation**

S.J. Boyes, M. Elliott/Marine Pollution Bulletin 86 (2014) 39-47

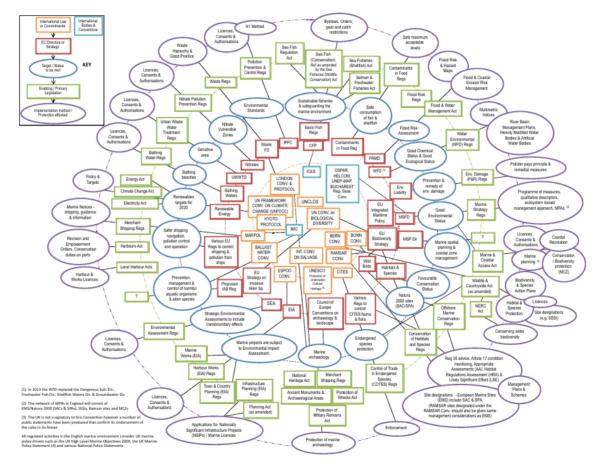


Fig. 1. International, European and English legislation giving protection to the marine environment

43



# **Marine legislation**

# But how about when we add the multiple players involved and law implementing and enforcing authorities?

# Now, THIS is the real **HORROR**!!!!

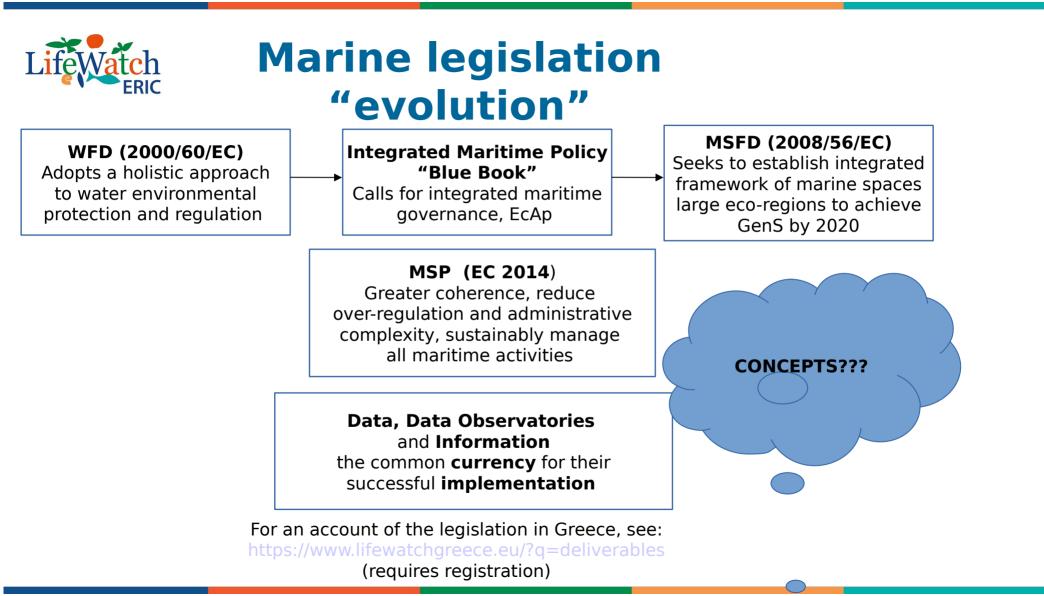
Let's be realistic and have a closer look ;)



## Marine legislation "evolution"

# United Nations Convention on the Law of the Sea (UNCLOS)

The Law of the Sea Convention defines the rights (incl. borders) and responsibilities of nations with respect to their use of the world's oceans, establishing guidelines for businesses, the environment, and the management of marine natural resources.



### Life Watch ERIC Concepts: EcAp, Participatory approach, ECOSystem services

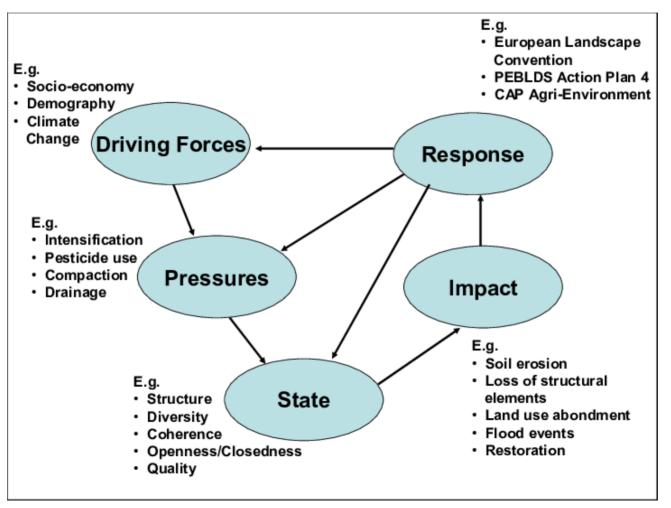
**Ecosystem Approach (EcAp)**: A **strategy** for the **integrated management** of land, water and living resources that **promotes conservation** and **sustainable use** in an **equitable way** (UNEP EMAP)

**Participatory** is a **quality of an approach** to enable and facilitate **involvement of the public** in the process of the **identifying problems** and to secure taking into consideration **their opinions** when deciding on **priorities** and proposing **solutions**.

Functions, and thus inherently also the processes by which they are carried out, are central to the 'ecosystem services' which the marine environment provides for its own sustainability and human benefits. Successful structure and functioning of the physico-chemical and ecological systems can produce ecosystem services: (i) provisioning, (ii) regulating, (iii) supporting (or habitat), and (iv) culture and heritage.



# **Concepts: DPSIR Framework**



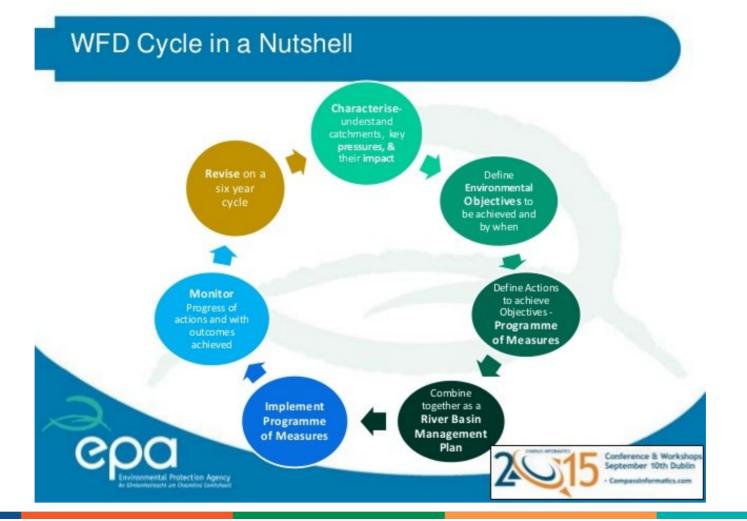


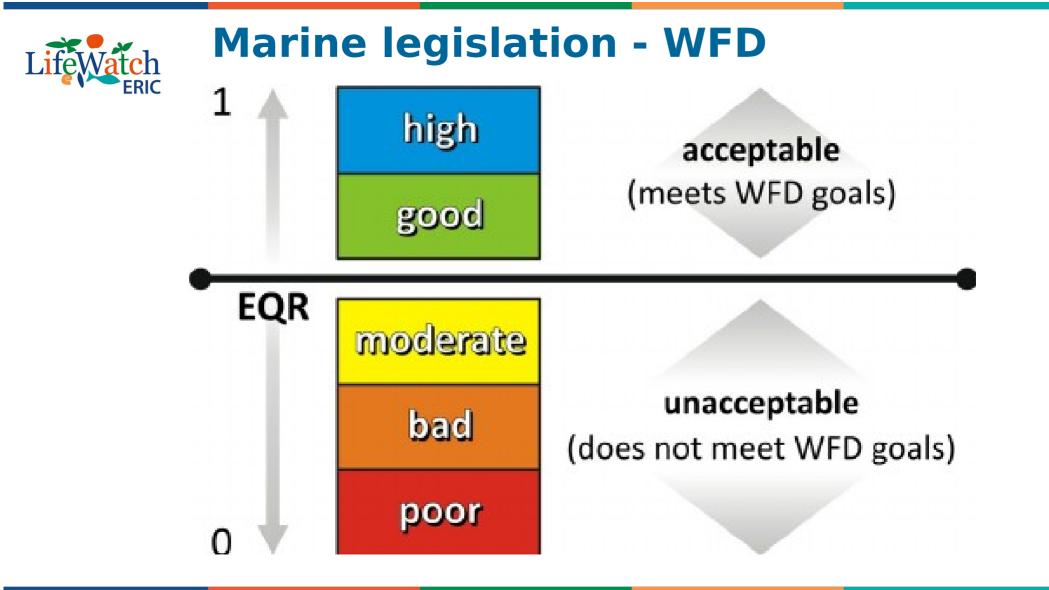
# Marine legislation framework comparisons

|                                 | WFD  | MSFD   | MSP   | ICZM   |
|---------------------------------|--|--|---|--|
| Cause /<br>Motivation           | Integrated policy  | Implementation of EcAp   | Competition for maritime space  | Integrative<br>management of coastal<br>resources  |
| Target                          | Good Chemical<br>Good environmental<br>status                                | GES by 2020  | Give greater<br>coherence to all<br>activities, reducing<br>over-regulation | Sustainable<br>development and<br>improyed living<br>conditions of coastal<br>populations    |
| Coverage                        | Catchment areas,<br>transitional waters,<br>narrow band of<br>coastal waters | Marine space, larger eco-<br>regions   | All EU Seas, including<br>cross-border areas                                | All EU catchment,<br>watershed and marine<br>areas   |
| Instruments                     | Indicators primarily for species and habitats                                | 11 Descriptors and numerous<br>indicators, at all levels of<br>biological diversity                    | MSP applications,<br>mostly GIS based<br>software, DSS                      | EcAp, Participatory<br>approach, DSS   |
| Level of<br>Implementa-<br>tioh | Already implemented<br>at national level                                     | Already transposed into<br>national legislation level, on<br>the way to be implemented                 | Must be transposed<br>Into national<br>legislation by 2016                  | Promoted by regional<br>and international<br>Organizations (e.g.<br>Barcelona Convention)    |
| Uniqueness                      | "Third wave" EU<br>legislation, focus on<br>biological quality<br>elements   | Applied across EU regional<br>Seas; Focus on functioning<br>and responses, according to<br>Descriptors | Promotes "Blue<br>Growth" while the<br>ICZM aspect is<br>removed            | Bridging GenS and<br>EcAp with regional<br>development towards<br>sustainable<br>development |

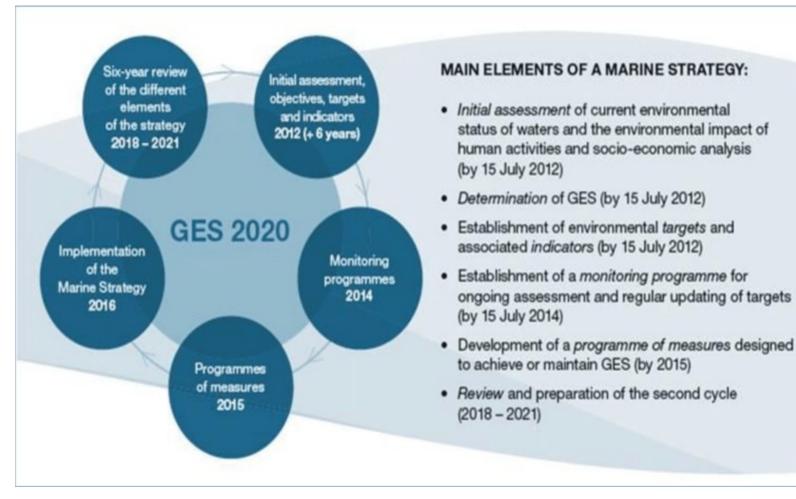


# **Marine legislation - WFD**





# Marine legislation - MSFD





# **Marine legislation - MSFD**



# **11 Descriptors**

- Descriptor 1: Biological diversity
- Descriptor 2: Non-indigenous species
- Descriptor 3: Population of commercial fish / shell fish
- Descriptor 4: Elements of marine food webs
- Descriptor 5: Eutrophication
- Descriptor 6: Sea floor integrity
- Descriptor 7: Alteration of hydrographical conditions
- Descriptor 8: Contaminants
- Descriptor 9: Contaminants in fish and seafood for human consumption
- Descriptor 10: Marine litter
- Descriptor 11: Introduction of energy, including underwater noise

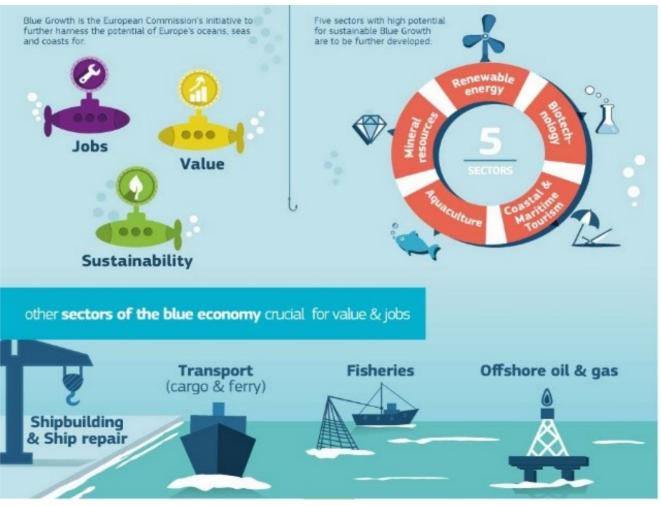


## **Marine legislation - MSP**

### https://vimeo.com/219515087



# **Marine legislation - MSP**





# **Legislation Framework - UK**

S.J. Boyes, M. Elliott/Marine Pollution Bulletin 86 (2014) 39-47

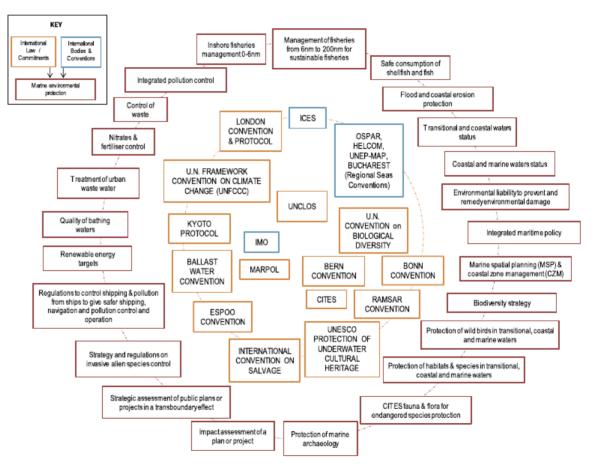
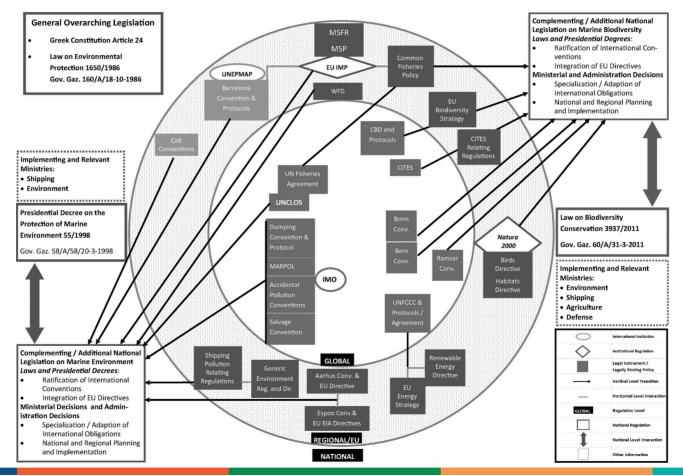


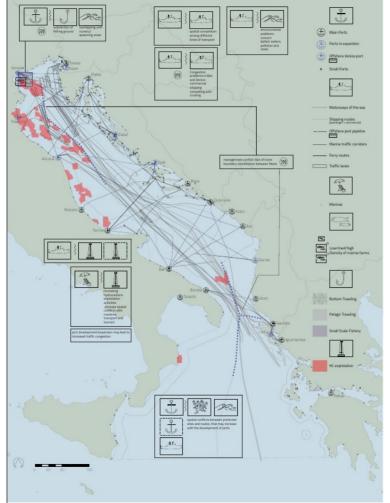
Fig. 2. Generic map of environmental protection.

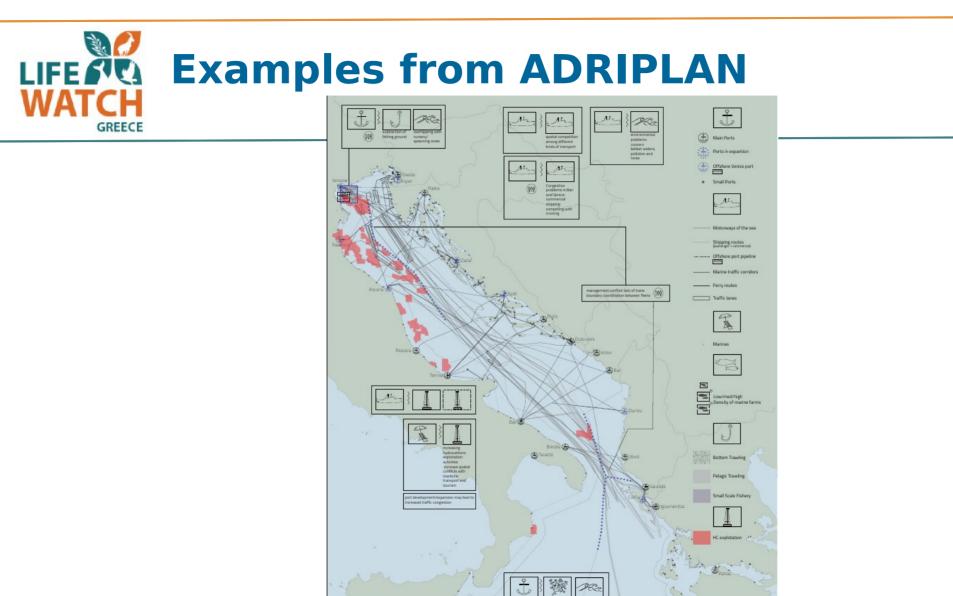


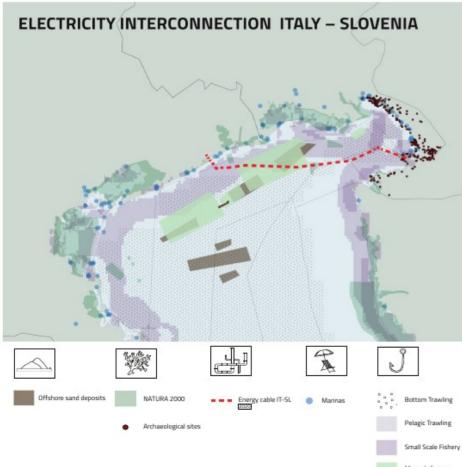
### Legislation Framework -Greece



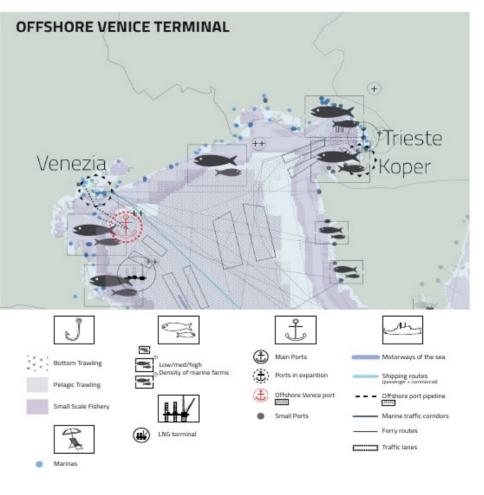






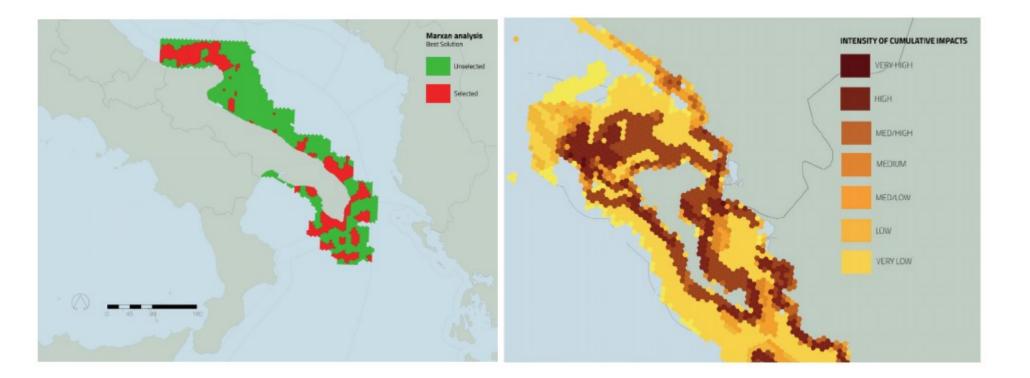


ERIC

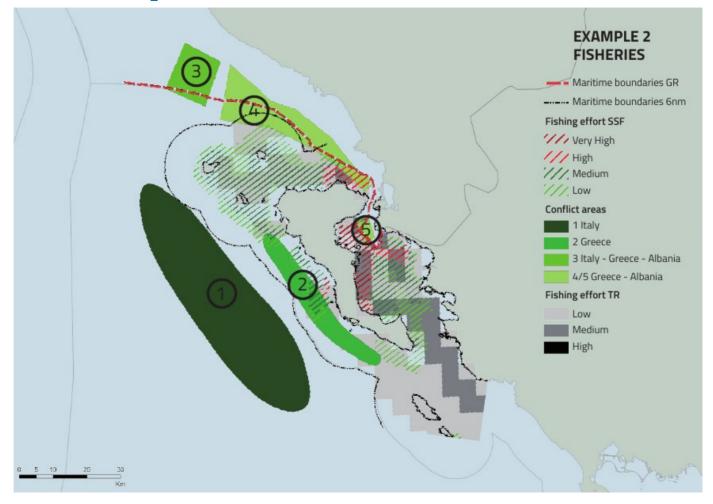


Mussels farms











# HCMR experience and expertise in the ecosystem approach of MSP

- ADRiatic Ionian maritime spatial PLANning (ADRIPLAN) EC DG Maritime Affairs and Fisheries, 2013 – 2015
- IONian Integrated marine Observatory (IONIO)-INTERREG-III, Greece-Italy Spatial planning for aquaculture development zones in the Ionian Islands
- Monitoring and Evaluation of Spatially Managed Areas (MESMA) Towards COast to COast NETworks of marine protected areas (CoCoNet)Adriatic-Ionian sites
- "Development of a marine protected zone with artificial reefs in Preveza Prefecture (Ionian Sea)"
- Study of the Kerkyraikos Bay at aiming the sustainable management of the Fishery Resources
- Derelict Fishing Gear Management System in the Adriatic Region (DeFishGear)
- VECTORS: Vectors of Change in Oceans and Seas Marine Life, Impact on Economic Sectors / EU FP7 (Oceans of Tomorrow)



# **Exemplar Research Projects**

- Architecture and roadmap to manage multiple pressures on lagoons (ARCH/)
- Technical specifications of Mediterranean trawl gears (MyGears)
- Estimation of maximum net length of trammel nets, gillnets and combined bottom set nets by using the volume or the mass of the net (ARCHIMEDES)
- Assessment of the interactions between corals, fish and fisheries, in order to develop monitoring and predictive modelling tools for ecosystem based management in the deep waters of Europe and beyond (CoralFISH/)
- Management and Monitoring of Deep-sea Fisheries and Stocks (DEEPFISHMAN/)
- Mediterranean Sensitive Habitats (MEDISEH)
- Coralligenous based indicators to evaluate and monitor the «good ecological status» of the Mediterranean coastal waters (CIGESMED)
- Rapid assessment of alien marine species in the Albanian and Montenegrin coast (ALBAMONTE)

# Life Watch

1923-4. THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA.

### TREATY OF PEACE WITH TURKEY,

AND OTHER INSTRUMENTS SIGNED AT LAUSANNE ON 24<sub>TH</sub> JULY, 1923,

TOGETHER WITH

AGREEMENTS BETWEEN GREECE AND TURKEY SIGNED ON 30th JANUARY, 1923,

AND

SUBSIDIARY DOCUMENTS FORMING PART OF THE TURKISH PEACE SETTLEMENT.

[WITH MAP.]

sented by Command ; ordered to be printed, 3rd April, 1924

# Treaty of Peace with Turkey and other Instruments

#### SECTION I.

1. TERRITORIAL CLAUSES.

Article 2.

From the Black Sea to the Ægean the frontier of Turkey is laid down as follows (see Map No. 1).\* (1.) With Bulgaria:

From the mouth of the River Rezvaya, to the River Maritza, the point of junction of the three frontiers of Turkey, Bulgaria and Greece:

the southern frontier of Bulgaria as at present demarcated :

(2.) With Greece:

Thence to the confluence of the Arda and the Maritza:

the course of the Maritza;

then upstream along the Arda, up to a point on that river to be determined on the spot in the immediate neighbourhood of the village of Tchörek-Keuy: the course of the Arda;

thence in a south-easterly direction up to a point on the Maritza, 1 kilom. below Bosna-Keuy:

a roughly straight line leaving in Turkish territory the village of Bosna-Keuy. The village of Tchörek-Keuy shall be assigned to Greece or to Turkey according as the majority of the population shall be found to be Greek or Turkish by the Commission for which provision is made in Article 5, the population which has migrated into this village after the 11th October, 1922, not being taken into account:

thence to the .Egean Sea :

the course of the Maritza.

#### Article 12.

The decision taken on the 13th February, 1914, by the Conference of London, in virtue of Articles 5 of the Treaty of London of the 17th-30th May, 1913, and 15 of the Treaty of Athens of the 1st-14th November, 1913, which decision was communicated to the Greek Government on the 13th February, 1914, regarding the sovereignty of Greece over the islands of the Eastern Mediterranean, other than the islands of Imbros, Tenedos and Rabbit Islands, particularly the islands of Lemnos, Samothrace, Mytilene, Chios, Samos and Nikaria, is confirmed, subject to the provisions of the present Treaty respecting the islands placed under the sovereignty of Italy which form the subject of Article 15.

Except where a provision to the contrary is contained in the present Treaty, the islands situated at less than three miles from the Asiatic coast remain under Turkish sovereignty.

# **Treaty of Peace with Turkey and other Instruments**

#### Article 13.

With a view to ensuring the maintenance of peace, the Greek Government undertakes to observe the following restrictions in the islands of Mytilene, Chios, Samos and Nikaria :--

- (1.) No naval base and no fortification will be established in the said islands.
- (2.) Greek military aircraft will be forbidden to fly over the territory of the Anatolian coast. Reciprocally, the Turkish Government will forbid their military aircraft to fly over the said islands.
- (3.) The Greek military forces in the said islands will be limited to the normal contingent called up for military service, which can be trained on the spot, as well as to a force of gendarmerie and police in proportion to the force of gendarmerie and police existing in the whole of the Greek territory.

#### Article 14.

The islands of Imbros and Tenedos, remaining under Turkish sovereignty, shall enjoy a special administrative organisation composed of local elements and furnishing every guarantee for the native non-Moslem population in so far as concerns local administration and the protection of person and property. The maintenance of order will be assured therein by a police force recruited from amongst the local population by the local administration above provided for and placed under its orders.

The agreements which have been, or may be, concluded between Greece and Turkey relating to the exchange of the Greek and Turkish populations will not be applied to the inhabitants of the islands of Imbros and Tenedos.

#### Article 15.

Turkey renounces in favour of Italy all rights and title over the following islands: Stampalia (Astrapalia), Rhodeš (Rhodos), Calki (Kharki), Scarpanto, Casos (Casso), Piscopis (Tilos), Misiros (Nisyros), Calimnos (Kalymnos), Leros, Patmos, Lipsos (Lipso), Simi (Symi), and Cos (Kos), which are now occupied by Italy, and the islets dependent thereon, and also over the island of Castellorizzo (see Map No. 2).\*

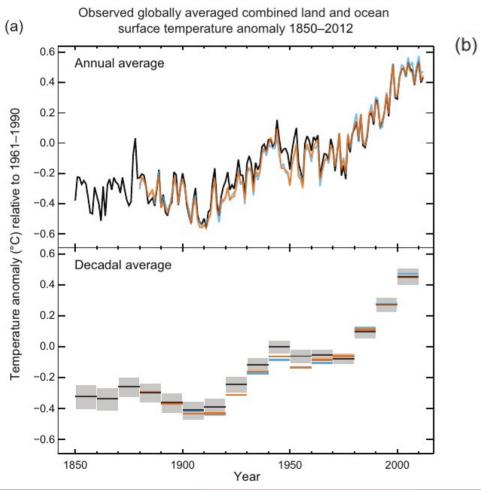
# **Treaty of Peace with Turkey and other Instruments**

ERIC

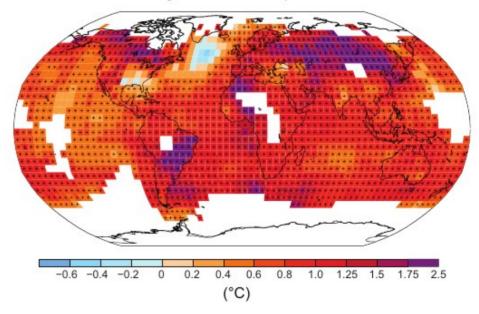




# **IPCC Report**

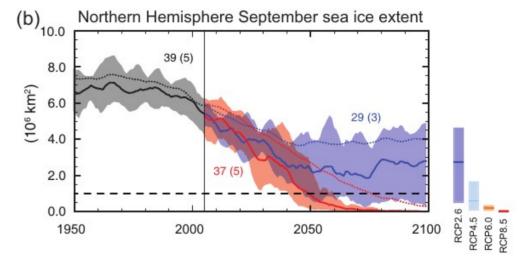


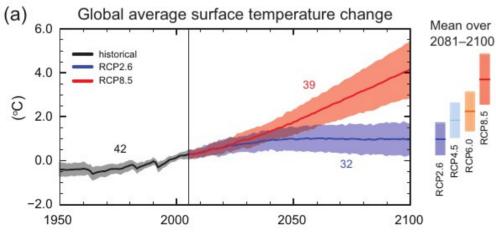
Observed change in surface temperature 1901–2012





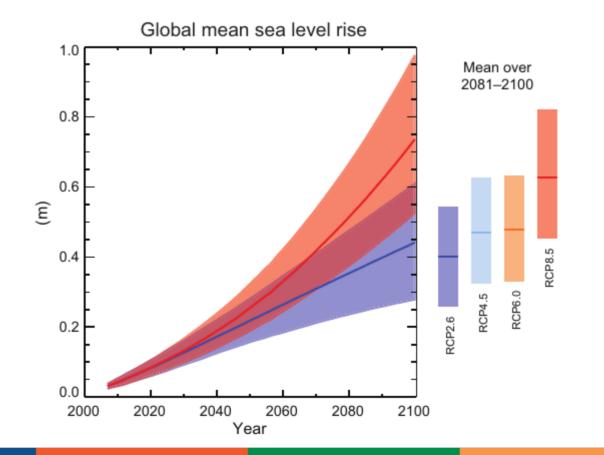
### **IPCC Report**







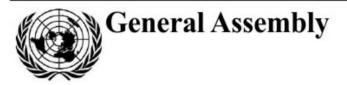
# **IPCC Report**





United Nations

A/RES/73/284



Distr.: General 6 March 2019

Seventy-third session Agenda item 14

# Resolution adopted by the General Assembly on 1 March 2019

[without reference to a Main Committee (A/73/L.76 and A/73/L.76/Add.1)]

73/284. United Nations Decade on Ecosystem Restoration (2021–2030)



 Decides to proclaim 2021–2030 the United Nations Decade on Ecosystem Restoration, within existing structures and available resources, with the aim of supporting and scaling up efforts to prevent, halt and reverse the degradation of ecosystems worldwide and raise awareness of the importance of successful ecosystem restoration;

2. *Stresses* that ecosystem restoration and conservation contribute to the implementation of the 2030 Agenda for Sustainable Development,<sup>22</sup> as well as other

related United Nations major outcome documents and multilateral environmental agreements, including the Paris Agreement adopted under the United Nations Framework Convention on Climate Change,<sup>13</sup> and the achievement of the Aichi Biodiversity Targets<sup>10</sup> and the post-2020 global biodiversity framework;

3. Encourages Member States:

(a) To foster political will, the mobilization of resources, capacity-building, scientific research and cooperation and momentum for ecosystem restoration at the global, regional, national and local levels, as appropriate;

(b) To mainstream ecosystem restoration into policies and plans to address current national development priorities and challenges due to the degradation of marine and terrestrial ecosystems, biodiversity loss and climate change vulnerability, thereby creating opportunities for ecosystems to increase their adaptive capacity and opportunities to maintain and improve livelihoods for all;

(c) To develop and implement policies and plans to prevent ecosystem degradation, in line with national laws and priorities, as appropriate;

(d) To build on and reinforce existing restoration initiatives in order to scale up good practices;

(e) To facilitate synergies and a holistic view of how to achieve international commitments and national priorities through the restoration of ecosystems;

(f) To promote the sharing of experiences and good practices in ecosystem conservation and restoration;





# *EU Nature Restoration Plan: restoring ecosystems across land and sea*



The Commission will request and support Member States to raise the level of **implementation of existing legislation** within clear deadlines.

- It will in particular request Member States to ensure **no deterioration in conservation trends and status of all protected habitats and species by 2030**.
- In addition, Member States will have to ensure that **at least 30%** of species and habitats not currently in favourable status are in that category or show a strong positive trend.

The Commission and the European Environmental Agency will provide guidance to Member States in 2020 on how to select and prioritize species and habitats.

### Life Watch ERIC Measuring target achievement by 2030

Close link to the reporting under Article 17 of the Habitats Directive and Article 12 the Birds Directive

# Sub-target 1: no further deterioration in conservation trends and status by 2030

•HD: 6-y conservation status trend neither unknown nor declining

•BD: 12-y "short term" population trend neither unknown nor declining

# Sub-target 2: improving ("strongly positive") trends for 30% of species and habitats in unfavourable/non-secure status by 2030

•HD: not FV in 2019 and 6-y conservation status trend reported as improving or FV

•BD: not Secure at EU-level in 2020, and 12-y "short term" population trend reported as improving





Brussels, 11.12.2019 COM(2019) 640 final

### COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE EUROPEAN COUNCIL, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

The European Green Deal

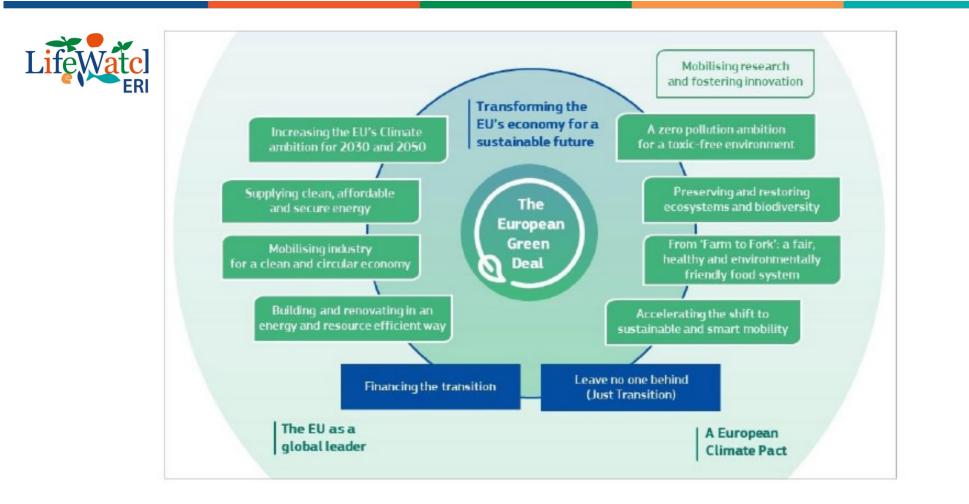


Figure 1: The European Green Deal



COMMISSION

Brussels, 20.5.2020 COM(2020) 380 final

### COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

EU Biodiversity Strategy for 2030

Bringing nature back into our lives



### Nature protection: key commitments by 2030

- 1. Legally protect a minimum of 30% of the EU's land area and 30% of the EU's sea area and integrate ecological corridors, as part of a true Trans-European Nature Network.
- 2. Strictly protect at least a third of the EU's protected areas, including all remaining EU primary and old-growth forests.
- 3. Effectively manage all protected areas, defining clear conservation objectives and measures, and monitoring them appropriately.



### EU Nature Restoration Plan: key commitments by 2030

- 1. Legally binding EU nature restoration targets to be proposed in 2021, subject to an impact assessment. By 2030, significant areas of degraded and carbon-rich ecosystems are restored; habitats and species show no deterioration in conservation trends and status; and at least 30% reach favourable conservation status or at least show a positive trend.
- 2. The decline in pollinators is reversed.
- 3. The risk and use of chemical pesticides is reduced by 50% and the use of more hazardous pesticides is reduced by 50%.
- 4. At least 10% of agricultural area is under high-diversity landscape features.
- 5. At least 25% of agricultural land is under organic farming management, and the uptake of agro-ecological practices is significantly increased.
- 6. Three billion new trees are planted in the EU, in full respect of ecological principles.
- 7. Significant progress has been made in the remediation of contaminated soil sites.
- 8. At least 25,000 km of free-flowing rivers are restored.
- 9. There is a 50% reduction in the number of Red List species threatened by invasive alien species.
- 10. The losses of nutrients from fertilisers are reduced by 50%, resulting in the reduction of the use of fertilisers by at least 20%.
- 11. Cities with at least 20,000 inhabitants have an ambitious Urban Greening Plan.
- 12. No chemical pesticides are used in sensitive areas such as EU urban green areas.
- 13. The negative impacts on sensitive species and habitats, including on the seabed through fishing and extraction activities, are substantially reduced to achieve good environmental status.
- 14. The by-catch of species is eliminated or reduced to a level that allows species recovery and conservation.





# www.lifewatchgreece.eu

# arvanitidis@hcmr.gr ceo@lifewatch.eu