

UPDATE ON MSEP

- **BLUE NEW DEAL Action Plan** – ‘Turning back to the sea’ <http://neweconomics.org/turning-back-to-the-sea/> and summary document: http://neweconomics.org/wpcontent/uploads/2016/11/BND_BULLETIN_E.pdf
- **MSEP legacy: A marine economics handbook for NGOs**
- All the freely available creative commons resources from the last 3 years of the MSEP project are available for download here: http://b.3cdn.net/nefoundation/fd13ca36cea4cb53b7_xhm6b9tzq.pdf
- **The Infographic Impact Assessment for MCZs** <http://www.mseproject.net/infographic-ia>
 The purpose of our this Infographic Impact Assessment (IIA) is to present trade-offs in a visual way and lay out a much more holistic range of criteria to be considered.
- **MCZ summary & Methodology**
- **Poole Rocks MCZ**- a partnership project between Southern IFCA, NEF, DWT and MCS to promote local marine life (screened at the PHSG marine protected area conference in May) at Poole Rocks MCZ. www.poolerocksmcz.uk and youtube link <https://www.youtube.com/watch?v=68dly3ofgMU>
- **NEF Economics in policy making briefings** <http://neweconomics.org/2013/05/economics-policy-making/>

RELEVANT INFO

- **Govt office for Science reports: *Foresight – Future of the Sea Evidence Review***
 - **Future of the Sea: Health and Wellbeing of Coastal Communities**
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/639432/Health_and_Wellbeing_Final.pdf
 - **Future of the Sea: Trends in Aquaculture**
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/635209/Future_of_the_sea_-_trends_in_aquaculture_FINAL_NEW.pdf
- **The Sustainable Fisheries Partnership (SFP) has published a new brochure about small-scale fisheries in the global seafood industry and SFP's approach to engaging them.** The brochure outlines strategies for improving the management of such fisheries, and offers case studies based on SFP's fishery improvement project work in developing countries such as Mexico and Indonesia, where small-scale fisheries are an important source of local food security. SFP's focus is working with national governments in developing countries to recognize that investing in the regulation and management of local fisheries will bring about social and economic benefits.
<https://www.sustainablefish.org/News/How-Small-Scale-Fisheries-Fit-into-the-Global-Seafood-Industry-SFP-outlines-a-strategy-for-small-scale-fisheries>
- **ICES: Fisheries exploitation and spawning stock sizes of North Sea stocks** have been evaluated against MSY and precautionary approach (PA) reference points, and the most recent status of these stocks is presented relative to safe biological limits. Most of the North Sea stocks (15 of 27) that are analytically assessed are exploited at rates at or below FMSY. Overall, fishing mortality (F) for shellfish, demersal, and pelagic fish stocks has substantially declined since the late 1990s. Spawning-stock biomass for most of these stocks has increased since 2000 and is

above or close to their individual biomass reference points. However, several North Sea stocks have current fishing mortality rates above FMSY (e.g., cod, whiting, haddock, mackerel, and blue whiting). This contains a table with a summary of Greater North Sea stocks in 2016 relative to maximum sustainable yield (MSY) and the ICES precautionary approach (PA).

http://www.ices.dk/sites/pub/Publication%20Reports/Advice/2017/2017/Greater_North_Sea_Ecoregion_Fisheries_Overview.pdf

- **Fish projections in the OECD-FAO Agricultural Outlook 2017-2026.** <http://www.fao.org/in-action/globefish/news-events/details-news/en/c/1032635/>
 - Excluding aquatic plants, world fish production is projected to reach 194 million tonnes in 2026, with an overall increase of 26 million tonnes, or 15% compared with the base period (average 2014-2026). The main driver of this increase will be aquaculture, for which output is expected to be 34% higher in 2026 relative to the base period (average 2014-2026).
 - Global aquaculture production is anticipated to exceed the 100 million tonne mark for the first time in 2025 and to reach 102 million tonnes by 2026. Aquaculture will continue to be one of the fastest growing food sectors despite its average annual growth rate slowing from 5.3% p.a. in the previous decade to 2.3% p.a. in the period 2017-2026.
 - The bulk of aquaculture production will continue to come from Asian countries, which will account for about 90% of total production by 2026. China will remain the dominant producer, accounting for 63% of total aquaculture production by 2026.
 - By 2026, aquaculture will account for 53% of total fish production and 58% of total fish produced for direct human consumption (excl non-food).
 - The publication, multilingual versions of the executive summary and a tool to compare trade, production, consumption and prices between countries and commodities are accessible through FAO



- **Communicating Impact – storytelling and visualisations**
Oct 31st / November 1st, London http://nefconsulting.com/communicating-impact/?dm_i=2HRL,14B56,2EZME8,3EX2F,1
In this new course on communicating and reporting social impact, you will learn how to:
 - Tell the story of your impact with the numbers and evidence in a way that has real meaning for your audience.
 - Make the most of data sets to tell complex stories visually in presentations and reports.
- **Valuation and proxies**
November 5th, London http://nefconsulting.com/communicating-impact/?dm_i=2HRL,14B56,2EZME8,3EX2F,1



- **Fishing effort displacement and the consequences of implementing Marine Protected Area management – An English perspective**
The creation of Marine Protected Areas (MPAs) and MPA networks is increasing globally. This trend is reflected in England's waters, where 34.7% of waters are protected. MPA network creation can displace activities (primarily fisheries) that are thought to be incompatible with the habitats and species of conservation importance that the network has been established to protect. There is also an obligation on the UK Government to ensure that all of its waters achieve Good Environmental Status (GES) by 2020 under the Marine Strategy Framework Directive. The

designation of MPAs and the subsequent introduction of management measures that displace activities may result in unintended impacts/consequences on protected benthic habitats or species within (a) the MPA where management measures have been introduced, (b) other MPAs or (c) wider UK or international waters. An incomplete understanding of the extent and type of fishing that is occurring within the MPA network (and throughout English waters in general), coupled with a paucity of information regarding how fishing effort is displaced as a result of MPA designation, may hinder the achievement of both GES by 2020 and MPA management goals. Better understanding of fishing effort displacement can inform the siting of future MPAs, aid marine spatial planning and improve existing MPA management. To aid the better description and understanding of the various facets of fisheries effort displacement, this paper proposes for the first time a structure to differentiate the types of fisheries displacement. Measures to mitigate the consequences of displaced fishing effort are also identified.

<http://www.sciencedirect.com/science/article/pii/S0308597X16307588>

- **Fishing practices and representations of shark conservation issues among users of a land-based shark angling online forum**

Recreational fisheries can play a significant role in the population dynamics of threatened fish species, but have received much less research and management attention than commercial fisheries. Land-based anglers are a group of recreational fishers that fish from beaches or piers; however, comparatively little is known about the practices and perceptions of this stakeholder group. In order to gather data for an initial assessment of the fishing practices of land-based anglers and their perspectives on shark conservation issues, we performed a content and discourse analysis of an online discussion forum used by the largest land-based shark fishing club in Florida. Discussion board content analysis can identify evidence that certain perceptions or practices exist within a studied sample, but cannot be used to estimate how common those perceptions and practices are among the wider population. We found evidence that forum users are demographically distinct from other recreational anglers in Florida, and are mostly young males. Some forum users perceive themselves as relatively low-income compared with other fishing stakeholder groups. There was no evidence in forum discussions that patterns of reported landing and release of hammerhead and tiger sharks changed following the introduction of new legal protections for these species in 2012. This study identified a minimum of dozens of cases of illegal shark fishing practices among forum users, and found evidence that some users are aware that these practices are illegal. There was evidence that some users believe that their own practices have no effect on shark populations and should not be regulated. Additionally, this study found the existence of mixed attitudes and levels of trust towards scientific researchers and environmentalists.

<http://www.sciencedirect.com/science/article/pii/S016578361730214X>

- **The future value of ecosystem services: Global scenarios and national implications**

We estimated the future value of ecosystem services in monetary units for 4 alternative global land use and management scenarios based on the Great Transition Initiative (GTI) scenarios to the year 2050. We used previous estimates of the per biome values of ecosystem services in 2011 as the basis for comparison. We mapped projected land-use for 16 biomes at 1 km² resolution globally for each scenario. This, combined with differences in land management for each scenario, created estimates of global ecosystem services values that also allowed for examinations of individual countries. Results show that under different scenarios the global value of ecosystem services can decline by \$51 trillion/yr or increase by USD \$30 trillion/yr. In addition to the global values, we report totals for all countries and maps for a few example countries. Results show that adopting a set of policies similar to those required to achieve the UN Sustainable Development Goals, would greatly enhance ecosystem services, human wellbeing and sustainability.

http://www.idakub.com/academics/wpcontent/uploads/2017/02/2017_J_Kubiszewski_ESScenario_s.pdf

- **Current limitations of global conservation to protect higher vulnerability and lower resilience fish species**

Estuaries are threatened by intense and continuously increasing human activities. Here we estimated the sensitivity of fish assemblages in a set of estuaries distributed worldwide (based on species vulnerability and resilience), and the exposure to cumulative stressors and coverage by protected areas in and around those estuaries (from marine, estuarine and freshwater ecosystems, due to their connectivity). Vulnerability and resilience of estuarine fish assemblages were not evenly distributed globally and were driven by environmental features. Exposure to pressures and extent of protection were also not evenly distributed worldwide. Assemblages with more vulnerable and less resilient species were associated with estuaries in higher latitudes (in particular Europe), and with higher connectivity with the marine ecosystem, moreover such estuaries were generally under high intensity of pressures but with no concomitant increase in protection. Current conservation schemes pay little attention to species traits, despite their role in maintaining ecosystem functioning and stability. Results emphasize that conservation is weakly related with the global distribution of sensitive fish species in sampled estuaries, and this shortcoming is aggravated by their association with highly pressured locations, which appeals for changes in the global conservation strategy (namely towards estuaries in temperate regions and highly connected with marine ecosystems).

<https://www.openchannels.org/literature/18706>

- **A Review of the Tools Used for Marine Monitoring in the UK: Combining Historic and Contemporary Methods with Modeling and Socioeconomics to Fulfill Legislative Needs and Scientific Ambitions**

Marine environmental monitoring is undertaken to provide evidence that environmental management targets are being met. Moreover, monitoring also provides context to marine science and over the last century has allowed development of a critical scientific understanding of the marine environment and the impacts that humans are having on it. The seas around the UK are currently monitored by targeted, impact-driven, programmes (e.g., fishery or pollution based monitoring) often using traditional techniques, many of which have not changed significantly since the early 1900s. The advent of a new wave of automated technology, in combination with changing political and economic circumstances, means that there is currently a strong drive to move toward a more refined, efficient, and effective way of monitoring. We describe the policy and scientific rationale for monitoring our seas, alongside a comprehensive description of the types of equipment and methodology currently used and the technologies that are likely to be used in the future. We contextualize the way new technologies and methodologies may impact monitoring and discuss how whole ecosystems models can give an integrated, comprehensive approach to impact assessment. Furthermore, we discuss how an understanding of the value of each data point is crucial to assess the true costs and benefits to society of a marine monitoring programme

http://journal.frontiersin.org/article/10.3389/fmars.2017.00263/full?&utm_source=Email_to_authors&utm_medium=Email&utm_content=T1_11.5e1_author&utm_campaign=Email_publication&field=&journalName=Frontiers_in_Marine_Science&id=273587



- **Follow the MSEP on twitter @MarineEconomics**
- If you have any research, articles or information that relates to socio-economic studies in the marine environment please share them with the network

Thanks, Chris @ NEF