

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 MSEProject 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 considered.
- **MCZ summary & Methodology**

RELEVANT INFO

- **FARNET: Boosting business along the fisheries value chain**
https://webgate.ec.europa.eu/fpfis/cms/farnet2/sites/farnet/files/publication/en_farnetguide12.pdf
- **Scotland: Building a commercial seaweed industry. First policy guidelines for sustainable seaweed cultivation.** The first set of policy guidelines for the commercial cultivation of seaweed in Scotland have been published. The Seaweed Cultivation Policy Statement also sets out the framework concerning the environmental impacts of seaweed farms, including the requirements to: consider and mitigate adverse environmental impacts; ensure that only native species are cultivated; be sited away from sources of pollution, where growing for human consumption; allow Small-medium size farms to be located anywhere in Scotland, subject to agreement and appropriate local conditions. <https://beta.gov.scot/publications/seaweed-cultivation-policy-statement-2017/pages/2/>
- **Crown Estate Announces New Research for the Shellfish Sector.** The Crown Estate newly established Scotland Portfolio has announced funding for a project to consider the role of co-operative working between shellfish businesses to develop "critical mass" of operations within a sea loch or wider regions. <http://assg.org.uk/>
- **EU consumer habits regarding fishery and aquaculture products**
<http://ec.europa.eu/COMMFrontOffice/publicopinion/index.cfm/Survey/getSurveyDetail/instruments/SPECIAL/surveyKy/2106>
- **FAO report on interactions among MPAs, livelihoods, and food security** The UN Food and Agriculture Organization has released a report exploring the interface of MPAs with fishery livelihoods and food security. It features 10 case studies from Africa, Asia, Latin America, and Oceania, as well as a general overview of conclusions, problems, and solutions. The 172-page *Marine Protected Areas: Interactions with Fisheries Livelihoods and Food Security* <http://www.fao.org/publications/card/en/c/9ea9ba18-3d8d-4ac4-bebb-a809e59ce70f/>
- **Report on preventing ‘paper parks’ in the EU** WWF has released a report concluding that EU protected areas are at risk due to lack of proper implementation of the EU Birds and Habitats

Directives. The report offers an overview of problems on the ground and recommends solutions, including completing the designation of marine Natura 2000 sites. *Preventing Paper Parks: How to make the EU nature laws work*

http://wwf.panda.org/about_our_earth/all_publications/?291910/Preventing-Paper-Parks

- **Green Wave-** <http://greenwave.org/about-us/> new method of ocean farming designed to restore ocean ecosystems, mitigate climate change, and create blue-green jobs for fishermen — while providing healthy, local food for communities.



- **Creating a theory of change – one day masterclass** May 8th
http://www.nef-consulting.co.uk/training-capacity-building/creating-a-theory-of-change/?dm_i=2HRL,116L5,2EZME8,31A8Z,1
- **SROI – Social Return on Investment - training (May 16th / 17th)**
This course counts towards accreditation as an assured practitioner and covers all the methodology and practice needed to carry out an SROI analysis.
- Estuarine & Coastal Sciences Association and Poole Harbour Study Group Conference
Marine Protected Areas: Science, Policy & Management 15th-17th May 2017, Poole
<http://www.pooleharbourstudygroup.org.uk/>
- **Valuation and proxies** June 20th
Assigning values to outcomes including identifying financial proxies
http://www.nef-consulting.co.uk/training-capacity-building/valuation-proxies/?dm_i=2HRL,116L5,2EZME8,31A8Z,1
- **Sustainable Earth 2017** – A global forum for connecting research with action (29 and 30 June 2017, Plymouth University). Sustainable Earth 2017 – a global forum for connecting research with action taking place on 29 and 30 June 2017 at Plymouth University.
<https://www.plymouth.ac.uk/research/institutes/sustainable-earth/sustainable-earth-2017>

PUBLICATIONS

- **The footprint of bottom trawling in European waters: distribution, intensity, and seabed integrity**
Mapping trawling pressure on the benthic habitats is needed as background to support an ecosystem approach to fisheries management. The extent and intensity of bottom trawling on the European continental shelf (0–1000 m) was analysed from logbook statistics and vessel monitoring system data for 2010–2012 at a grid cell resolution of 1 × 1 min longitude and latitude. Trawling intensity profiles with seabed impact at the surface and subsurface level are presented for 14 management areas in the North-east Atlantic, Baltic Sea and Mediterranean Sea. The footprint of the management areas ranged between 53–99% and 6–94% for the depth zone from 0 to 200 m (Shallow) and from 201 to 1000 m (Deep), respectively. The footprint was estimated as the total area of all grid cells that were trawled fully or partially. Excluding the untrawled proportions reduced the footprint estimates to 28–85% and 2–77%. Largest footprints per unit landings were observed off Portugal and in the Mediterranean Sea. Mean trawling intensity ranged between 0.5 and 8.5 times per year, but was less in the Deep zone with a maximum intensity of 6.4. Highest intensities were recorded in the Skagerrak-Kattegat, Iberian Portuguese area, Tyrrhenian Sea and Adriatic Sea. Bottom trawling was highly aggregated. For the Shallow zone the seabed area where 90% of the effort occurred comprised between 17% and 63% (median 36%) of the management area. Footprints were high over a broad range of soft sediment

habitats. Using the longevity distribution of the untrawled infaunal community, the seabed integrity was estimated as the proportion of the biomass of benthic taxa where the trawling interval at the subsurface level exceeds their life span. Seabed integrity was low (<0.1) in large parts of the European continental shelves, although smaller pockets of seabed with higher integrity values occur. The methods developed here integrate official fishing effort statistics and industry-based gear information to provide high-resolution pressure maps and indicators, which greatly improve the basis for assessing and managing benthic pressure from bottom trawling. Further they provide quantitative estimates of trawling impact on a continuous scale by which managers can steer. <http://m.icesjms.oxfordjournals.org/content/early/2016/12/02/icesjms.fsw194.abstract>

- **A critique of the balanced harvesting approach to fishing**

The approach to fisheries termed “balanced harvesting” (BH) calls for fishing across the widest possible range of species, stocks, and sizes in an ecosystem, in proportion to their natural productivity, so that the relative size and species composition is maintained. Such fishing is proposed to result in higher catches with less negative impact on exploited populations and ecosystems. This study examines the models and the empirical evidence put forward in support of BH. It finds that the models used unrealistic settings with regard to life history (peak of cohort biomass at small sizes), response to fishing (strong compensation of fishing mortality by reduced natural mortality), and economics (uniform high cost of fishing and same ex-vessel price for all species and sizes), and that empirical evidence of BH is scarce and questionable. It concludes that evolutionary theory, population dynamics theory, ecosystem models with realistic assumptions and settings, and widespread empirical evidence do not support the BH proposal. Rather, this body of evidence suggests that BH will not help but will hinder the policy changes needed for the rebuilding of ecosystems, healthy fish populations, and sustainable fisheries. <https://academic.oup.com/icesjms/article/73/6/1640/2457873/A-critique-of-the-balanced-harvesting-approach-to>

- **Mediterranean Sea: A Failure of the European Fisheries Management System**

North East Atlantic and the Mediterranean Sea fisheries are governed by the European Common Fisheries Policy (CFP). Despite the fact that both areas are managed under the same broad fishery management system, a large discrepancy in management performance occurs, with recent considerable improvement of stock status witnessed in the North East Atlantic and a rapidly deteriorating situation in the Mediterranean Sea. The control of fishing effort combined with specific technical measures, such as gear regulation, establishment of a minimum conservation reference size, and selective closure of areas and seasons, is the main management strategy adopted by Mediterranean Sea EU countries. On the other hand TAC (Total Allowable Catches) is the major regulatory mechanisms in the North East Atlantic. Here, we analyzed all available stock assessment and effort data for the most important commercial species and fleets in the Mediterranean Sea since 2003. The analysis shows that there is no apparent relationship between nominal effort and fishing mortality for all species. Fishing mortality has remained stable during the last decade, for most species, with a significant decline observed only for red mullet and giant red shrimp but an increase for sardine stocks. Also, current F is larger or much larger than F_{MSY} for all species. Despite catch advice are produced by STECF each year, the realized catches have usually been much larger than the scientific advice. A recent analysis argued that this dichotomy might be due to several factors, such as the better enforcement of monitoring control and surveillance in North East Atlantic, the more complex socio-economic situation and the less effective management governance in the Mediterranean Sea. Here we argue instead that major reasons for the alarming situation of Mediterranean Sea stocks can be found in the ineffectiveness of the current effort system to control F , the continuous non-adherence to the scientific advice and inadequacies of existing national management plans as a key management measure. It is therefore undoubted that alternatives management measures as a TAC based system are necessary if Europe is willing to achieve the objectives of

the CFP before 2020 in the Mediterranean Sea.

<http://journal.frontiersin.org/article/10.3389/fmars.2017.00072/full>

- **Assessing the evidence for stakeholder engagement in biodiversity conservation**

Engaging local stakeholders is a central feature of many biodiversity conservation and natural resource management projects globally. Current literature on engagement predominantly focuses on individual case studies or specific geographical contexts, making general conclusions regarding the effect of these efforts on conservation outcomes difficult. We reviewed evidence from the peer-reviewed and grey literatures related to the role of stakeholder engagement (both externally-driven and self-organized engagement) in biodiversity conservation at the local scale using both quantitative and qualitative approaches. We critically appraised and extracted data using mixed methods for case studies (n = 82) and meta-analyses (n = 31) published from 2011 to 2015. We conducted an inductive thematic analysis on background literature references published from 2000 to 2016 (n = 283). The quantitative analysis assessed multiple variables, and yielded no significant results, but suggested a possible relationship between success in producing attitudinal change towards conservation and four engagement factors. Our qualitative analysis identified six dimensions of engagement processes that are critical for successful outcomes when a project is externally-driven, and suggests that understanding of governance and social-cultural context plays an important role in all types of stakeholder engagement efforts. Finally, we reflect on the effectiveness of relying primarily on evidence available from published literature to understand links between conservation and stakeholder engagement, in particular with regard to self-organized engagement.

<http://www.sciencedirect.com/science/article/pii/S0006320717302069>

- **New Paradigms to Help Solve the Global Aquaculture Disease Crisis**

<http://journals.plos.org/plospathogens/article?id=10.1371/journal.ppat.1006160>

- **Tidal lagoon environmental interactions: regulator perspective, solution options and industry challenges**

Tidal range energy is an attractive renewable energy option, particularly in areas of high tidal range, such as the UK. Historically one of the main barriers to tidal range developments in the UK, specifically tidal barrages, has been regulatory environmental concerns and uncertainty surrounding environmental impacts. Tidal lagoons are often suggested as a means of reducing the environmental impact of barrage options. Recent developments in the lagoon sector mean it is now more important than ever to further consider the environmental impacts arising from tidal lagoons and the potential constraints these impacts may pose to the industry's future growth. Environmental impacts and their interactions are complex, often making them difficult to understand and manage. Here, the authors develop a conceptual framework to categorise impacts, present results from consultation with regulatory and policy organisations and discuss potential impact and enhancement solution options. This study includes a number of case studies to present lessons learnt, opportunities, cautions and successful implementation of past solutions. In the absence of operational tidal lagoons, these case studies are based on barrages and other relevant developments.

<http://digital-library.theiet.org/content/reference/10.1049/etr.2016.0125>



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- Fishtagram <http://www.fishtagram.com/>

- 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