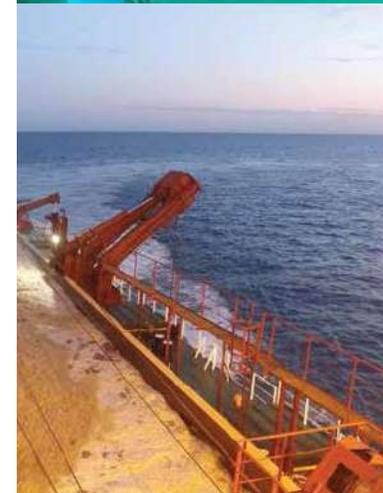
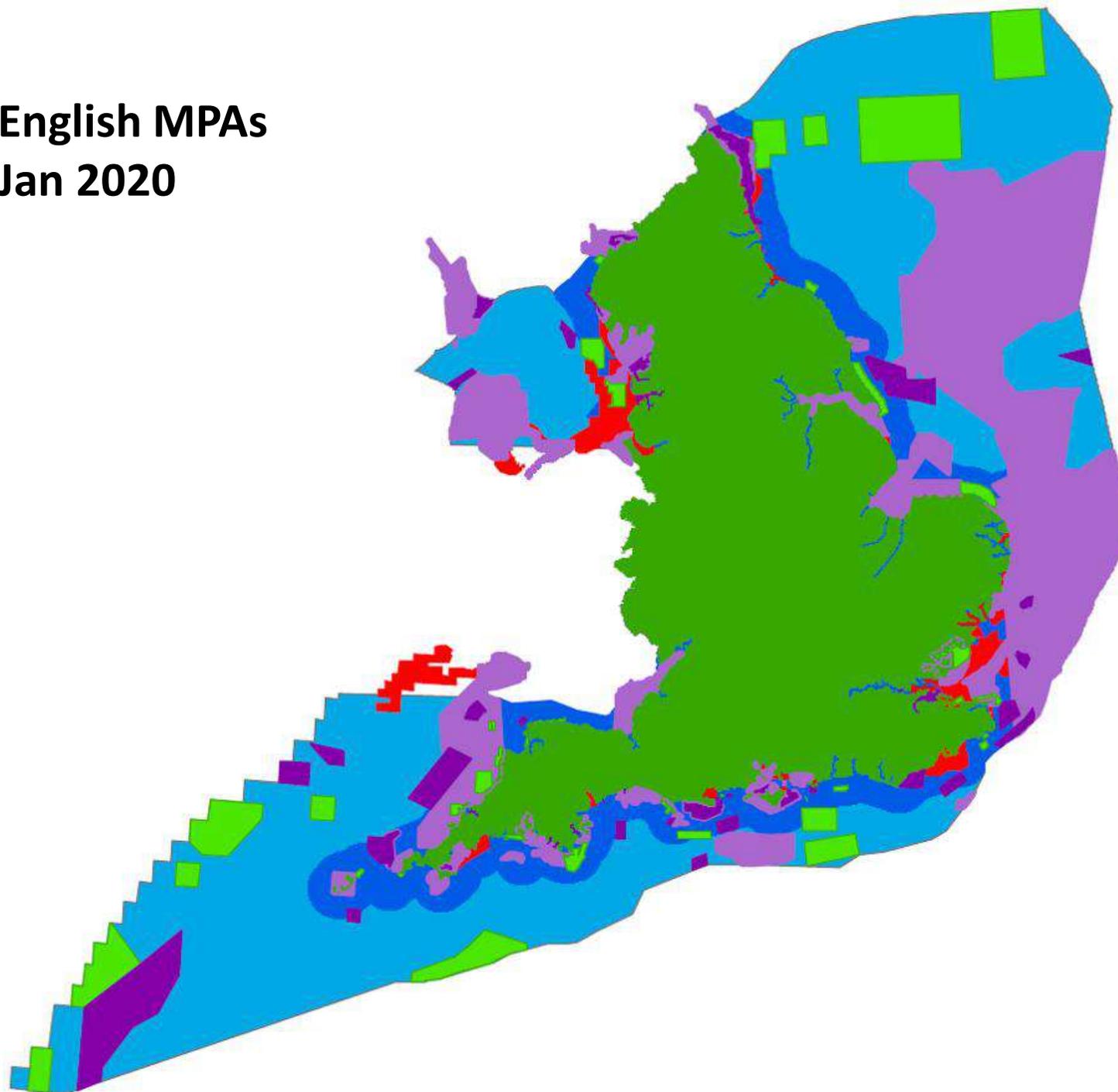


Do we know What do we want from our seas?

Mark Duffy ~ Principal Advisor (Greener Farming & Fishing)
Coastal Futures 16 January 2020

English MPAs Jan 2020





And so we could all be accused of..



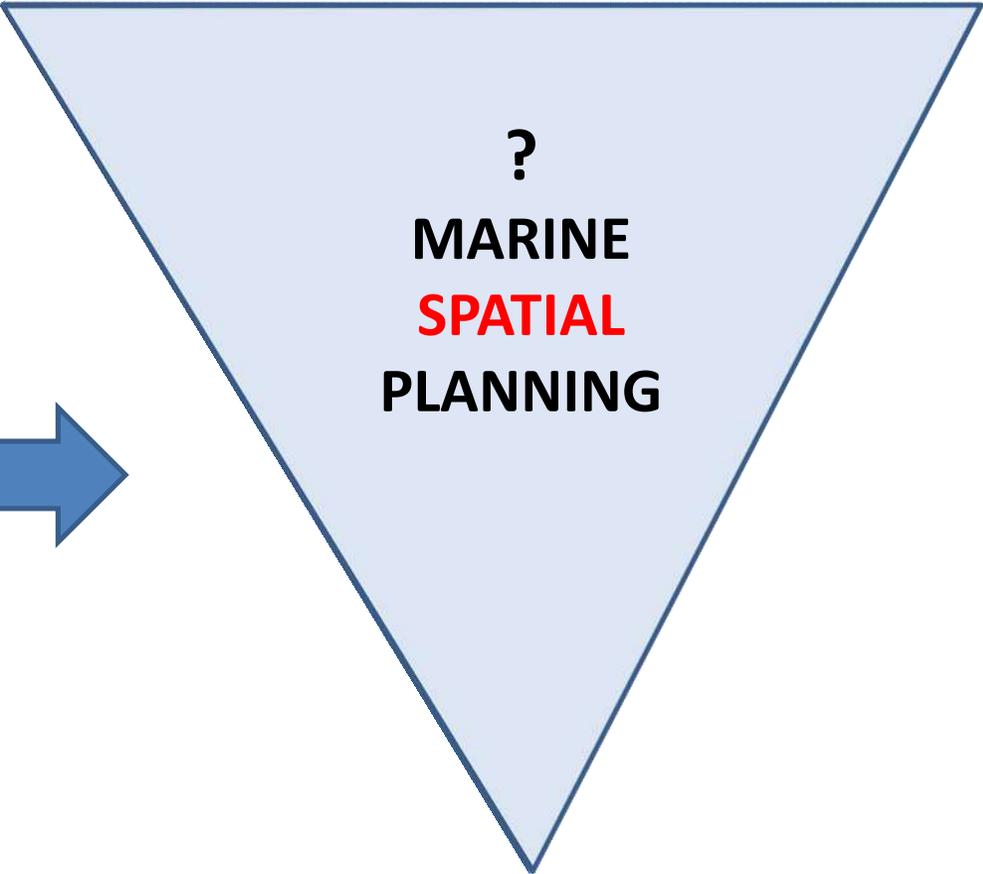
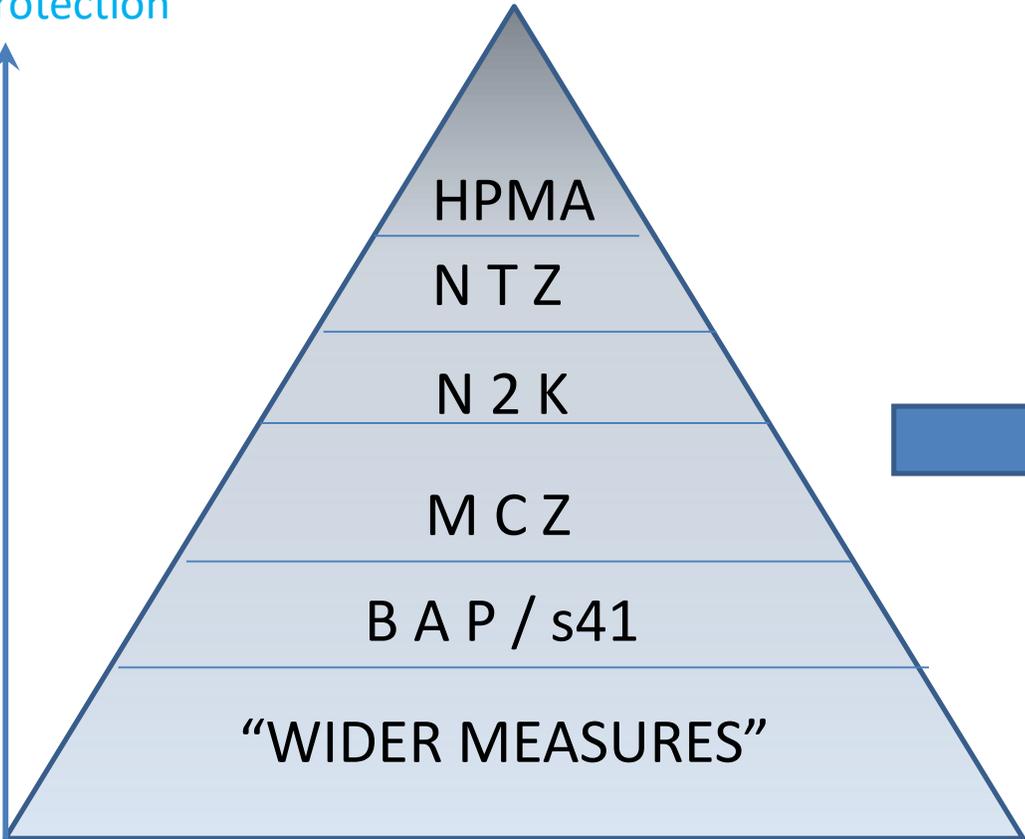
CAKEISM

COMPONENTS



WHOLE SEAS

> Level of Protection



Example – offshore wind & forage fish fisheries





Donate

Download

Links

Info

Stats

G.B. National Grid Status

Data courtesy of Elexon portal and Sheffield University



Demand 40.28GW



Frequency 49.897Hz



Coal 3.10GW
(7.70%)



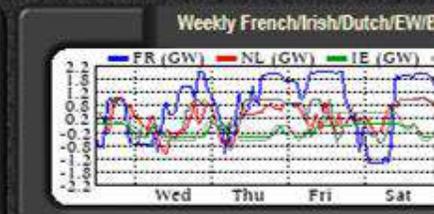
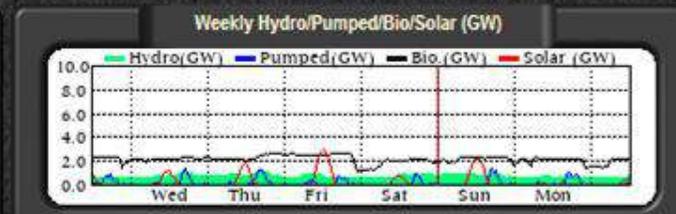
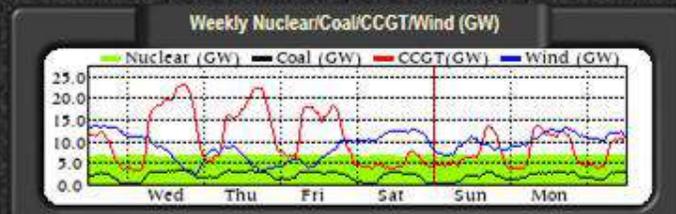
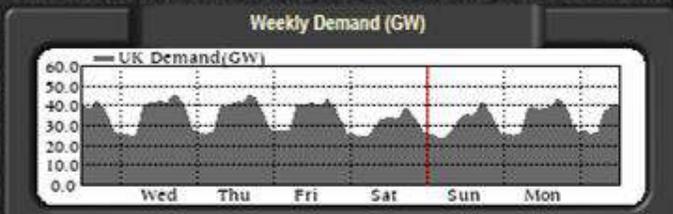
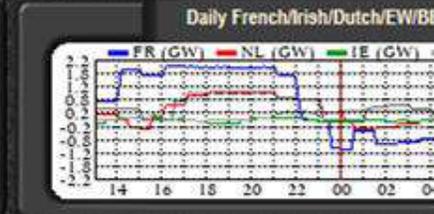
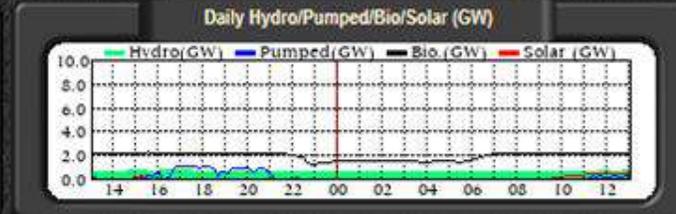
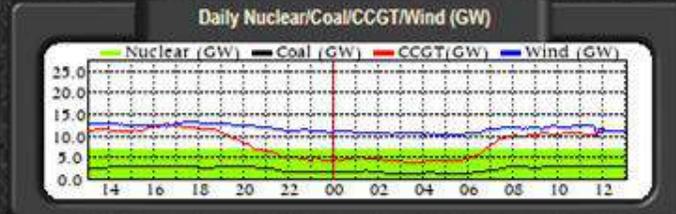
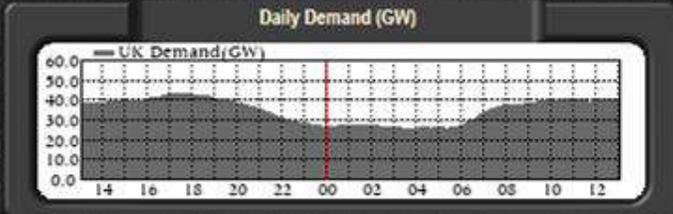
Nuclear 6.90GW
(17.13%)



CCGT 11.32GW
(28.10%)



Wind 10.90GW
(27.06%)



14 Jan 2020, 27 % of UK electricity generated by offshore wind

Offshore wind & forage fish fisheries

- 
- A wide-angle photograph of an offshore wind farm. Numerous wind turbines are visible, stretching across the horizon over a body of water. The sky is filled with heavy, grey clouds, creating a somber atmosphere. The water in the foreground is dark and slightly choppy.
- Offshore wind will help delivery of Carbon Net Zero by 2050
 - Will be environmental impacts.
 - What's the net environmental benefit?
 - Significant impact on birds including Kittiwakes

The North Sea Sandeel Fishery

- Sandeels are key prey for many seabirds - already under stress*
- & Harbour Porpoise and Gadoids.
- A pillar of the marine food web.

- North Sea Sandeel fishery largely prosecuted by Danes, in our waters.
- Fishery is MSC certified; largely upon the basis of MSY..
- .. little consideration of wider impacts, including:
- the requisite density for foraging success.

**Caroll et al 2017*



- What's wrong with MSY?
- A poor metric for wider sustainability.
- Are we over-dependent on MSY?

- EU Exit = repatriation opportunity?
- We could manage *our* sandeels differently.
- Enhancing ability for seabirds to feed could offset impacts due to offshore wind i.e. a net environmental benefit
- Would be additional benefits

- Danish challenge via UNCLOS art 62(2) ?
coastal States have an obligation under UNCLOS to set an allowable catch and to grant other States EEZ fisheries access if (and only if) they [do] not have the capacity to harvest the entire allowable catch“ themselves [TAC will be based around MSY]
- Time to update UNCLOS to C21



Is there light on the horizon?



Principles / Questions to consider

1. Is there consensus that we need to change how we exploit/ conserve our marine environment if we are to see the sought-after RECOVERY at the right scale. Business as usual → transformative change.
2. Do exploitation and conservation need to be better integrated, and if so how?
e.g., (i) should every MPA have fishery specific objectives (or heresy)
(ii) What metric can assist evaluate the good & services provided by our seas (mNC).
Isn't this something that Marine Spatial Planning should address i.e., be *more* directive?
3. GES v MPAs – should we refocus our efforts around GES, recognising that the MPA Network will make a partial contribution to that?
4. In our wider more holistic considerations of what we want from our seas we need to much better integrate climate change considerations. Our seas can significantly help.

5. Back to the Future ~ i.e., **restore**, but with an eye to what future evolving marine conditions will support. (some historic baselines might be impossible to achieve, but we need to restore to a much more resilient ecosystem that can sustain the future knocks including those from climate change)

