The excessive complexity of national marine governance systems – Has this decreased in England since the introduction of the Marine and Coastal Access Act 2009?

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Abstract

With successive Government restructuring and the introduction of the Marine and Coastal Access Act in 2009, this paper revisits a previous set of organograms created in 2006 indicating the government departments with responsibilities relating to the marine and coastal environment in England in 2014. The 2009 Act presented an opportunity to harmonise marine management by simplifying the complexity in England through a radical restructuring of marine governance; however this is apparently not the case with many overlapping responsibilities still existing. This paper provides an overview of the 2009 Act, discussing some of the significant changes like the creation of the Marine Management Organisation (MMO), examines the current structure of marine management in England following its enactment and highlights the continued overlaps in jurisdiction, responsibilities and complexity of the government agencies with a marine remit.

Keywords:

Marine governance, Marine licensing, Marine and Coastal Access Act 2009, Legislation, Marine Management Organisation (MMO)

1. Introduction

A holistic and integrated marine management framework implies that many sectors are managed, using many legal instruments which are implemented by many administrative bodies to represent and safeguard the interests of many types of stakeholders [1]. Given this, many countries appear to have an unnecessary complex marine legislation and administrative framework [2–7]. All countries have to respond to a whole suite of international, regional (e.g. European) and national policies, laws and agreements controlling many of the sectors such as fisheries, energy and conservation by a plethora of organisations and administrative bodies [8]. No single authority is responsible for the management of the marine environment, with activities regulated on the national, international, supranational and trans-national levels, each with its own rules and policies and often with a sectoral basis. Hence, and especially on a national basis, marine activities such as marine spatial planning, tourism, oil and gas production and offshore wind parks are regulated mainly through different government departments, sometimes with ineffective communication and lack of coordination. This can lead to a diverse range of conflicting marine activities being regulated by numerous pieces of legislation and policy [9].

In November 2009, the UK Marine and Coastal Access Act 2009 [10] (hereafter referred to as the 2009 Act) gained Royal Assent and provided the first statutory Act in the UK focused on improving the management and regulation protecting the marine and coastal environment by putting in place a

more integrated effective management system. The 2009 Act aimed to ensure 'clean healthy, safe, productive and biologically diverse oceans and seas, by putting in place better systems for delivering sustainable development of marine and coastal environment'. This recognised and responded to the view that England required an updated marine and coastal governance framework better suited to modern day challenges [11]. The legislation created the Marine Management Organisation (MMO) to oversee the functions and objectives of the Act, and reorganised several other key bodies to better manage the marine environment. Given that this new Act represented an opportunity to make major changes to the framework for marine biodiversity conservation and resource exploitation in England and Wales [12,13], it is now an appropriate time to question whether this has been achieved.

This paper provides an overview of the 2009 Act, and examines the current structure of marine governance in England in order to assess the effectiveness of the Act in simplifying the complexity of marine management described by Elliott et al. [7], Where necessary the situation in Scotland and Northern Ireland, as other countries within the United Kingdom, will also be discussed. Elliott et al. [7] presented the complexity of the marine management system in England in a set of organograms. These showed the number of government departments having responsibilities relating to the marine and coastal environments in England and the overlaps and complexities in the system. With successive Government restructuring and the introduction of new marine legislation which created new departments in 2009, this paper presents revised organograms depicting the roles of government organisations in order to provide lessons for other maritime states.

2. Marine and Coastal Access Act 2009

The 2009 Act aimed to provide a framework to regulate marine activities and sets out in legislation the proposals which were widely supported in A Sea Change, the UK Government's White Paper published in March 2007 [14]. A central aim of the 2009 Act is to provide a more coherent, and a simpler, legal regime through which an appropriate balance can be better secured and managed between: (i) economic and social marine activities, and (ii) the protection of the marine environment and marine biodiversity. In response to industry calling for a simpler marine licensing regime, amongst other things, the Act established the Marine Management Organisation (MMO) for English waters (Part 1 of the Act) to administer a new regime of marine licensing.

Although the United Kingdom is one maritime state, and a single state within the European Union, as a result of the devolution process in the UK, the 2009 Act is specific to England and Wales. The Government and the Devolved Administrations of Scotland and Northern Ireland have also implemented national legislation. The Scottish Government enacted the Marine (Scotland) Act (2010) with Part One of the Act creating Marine Scotland, an equivalent body to the MMO. The Marine Act (Northern Ireland) (2013) gained Royal Assent on 17 September 2013 giving the NI Department of the Environment the equivalent powers to the MMO.

Marine planning is one of the main functions of the MMO, who are currently preparing marine plans in accordance with the policies and objectives set out by the UK Government in its Marine Policy Statement (MPS) [15]. The 2009 Act also made provision for designating a network of conservation sites called Marine Conservation Zones (MCZs), the management of inshore fisheries through new bodies called Inshore Fisheries and Conservation Authorities (IFCAs), the management of marine and freshwater fisheries, enforcement powers for managing licensing, and nature conservation and fishing in the marine area. There were also new powers to extend recreational access to the English coast and to enable the creation, as far as is possible, of a continuous route around the coast

sufficiently wide to allow unconstrained passage on foot and recreational space. As such, the MMO will be the regulator for most, but not all, activities in the marine environment.

3. Marine governance in England

The marine environment in the UK has a complex system of management that has developed in order to deal with various political and sectoral issues which have arisen over many years [16]. Figs. 1 and 2 show the organograms of government departments in 2014 having responsibilities relating to the management of the coast and marine environment in England. These have been revised since the 2006 paper (Elliott et al., 2006) [7] based on legislative changes (2009 Act) and the transferral of responsibilities/remits between departments through Government restructuring.

In May 2006, the Department for Communities and Local Government (DCLG)[2] was created succeeding the Office of the Deputy Prime Minister but taking on the same responsibilities of the Local Authorities and Planning Inspectorate. A new executive non-departmental public body (NDPB) of the DCLG was also created called the Major Infrastructure Planning Unit; its aim was to provide an integrated planning body and its role to independently examine applications for nationally significant infrastructure projects which include large wind farm developments (>100 MW), power stations, harbour and port developments and sewage treatment works occurring in or affecting the marine environment. The Department of Energy and Climate Change (DECC)[3] was created in October 2008, to bring together energy policy (previously with the Department for Business, Enterprise and Regulatory Reform (BERR), which is now the Department for Business Innovation and Skills (BIS)) and climate change mitigation policy (previously with the Department for Environment, Food and Rural Affairs (Defra)). The two main goals of DECC are firstly to propose policies to tackle climate change and secondly, to regulate both renewable energy and non-renewables under various legislations (Petroleum Act 1998, Energy Act 2008, 2010 and 2011, and Climate Change Act 2008) reflecting the fact that climate change and energy policies are inextricably linked. DECC retains its responsibilities for licensing, exploration and regulating oil and gas developments on the UK continental shelf.

Shipping, navigation, pollution prevention from vessels and emergency response at sea still remain the remit of the Department for Transport (DfT),[4] with protected wrecks and the protection of the historic marine environment resting with English Heritage,[5] an Executive Non-Departmental Public Body (NDPB) under the Department for Culture, Media and Sport (DCMS).[6] The 2009 Act now enables English Heritage, for the first time, to advise a regulatory body about licensable activities at sea to ensure the protection of the marine environment which is of historic or archaeological interest. The remits of the Ministry of Defence (MoD) and the Crown Estate remain unchanged by the government restructuring.

With the exception of the responsibilities discussed above, the remainder of the management of the marine environment falls within the remit of the Executive Agencies and Executive NDPBs of Defra.[7] The epithet Executive refers to the fact that the bodies are managed by an independent Board and Chairperson rather than via a Minister or Secretary of State linked to a government department.

[2] http://www.communities.gov.uk/corporate/.

[3] http://www.decc.gov.uk/.

[4] http://www.dft.gov.uk/.

[5] http://www.english-heritage.org.uk/.

[6] http://www.culture.gov.uk/.

[7] http://www.defra.gov.uk/.

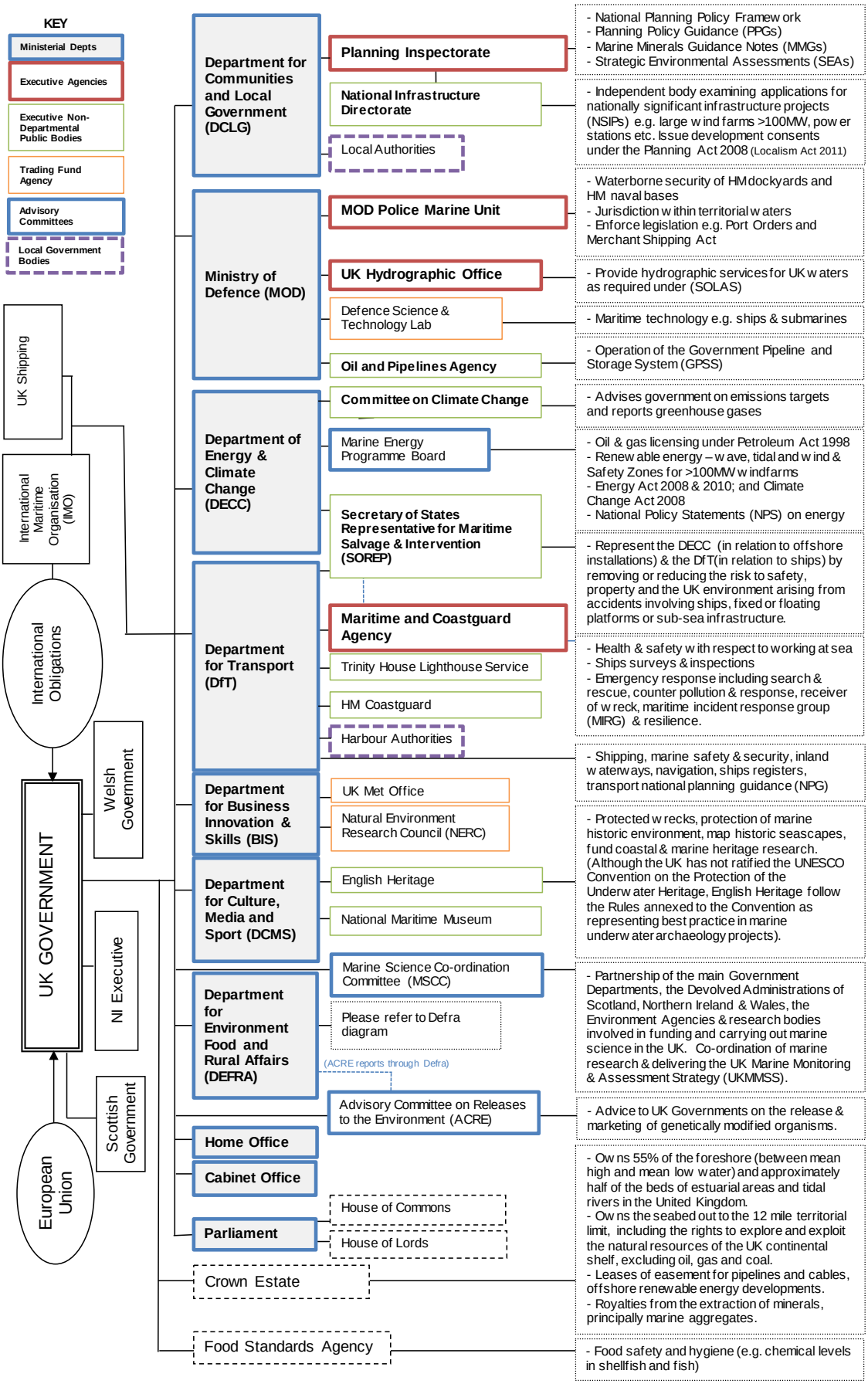

Fig. 1. Government departments with responsibilities for the marine environment.

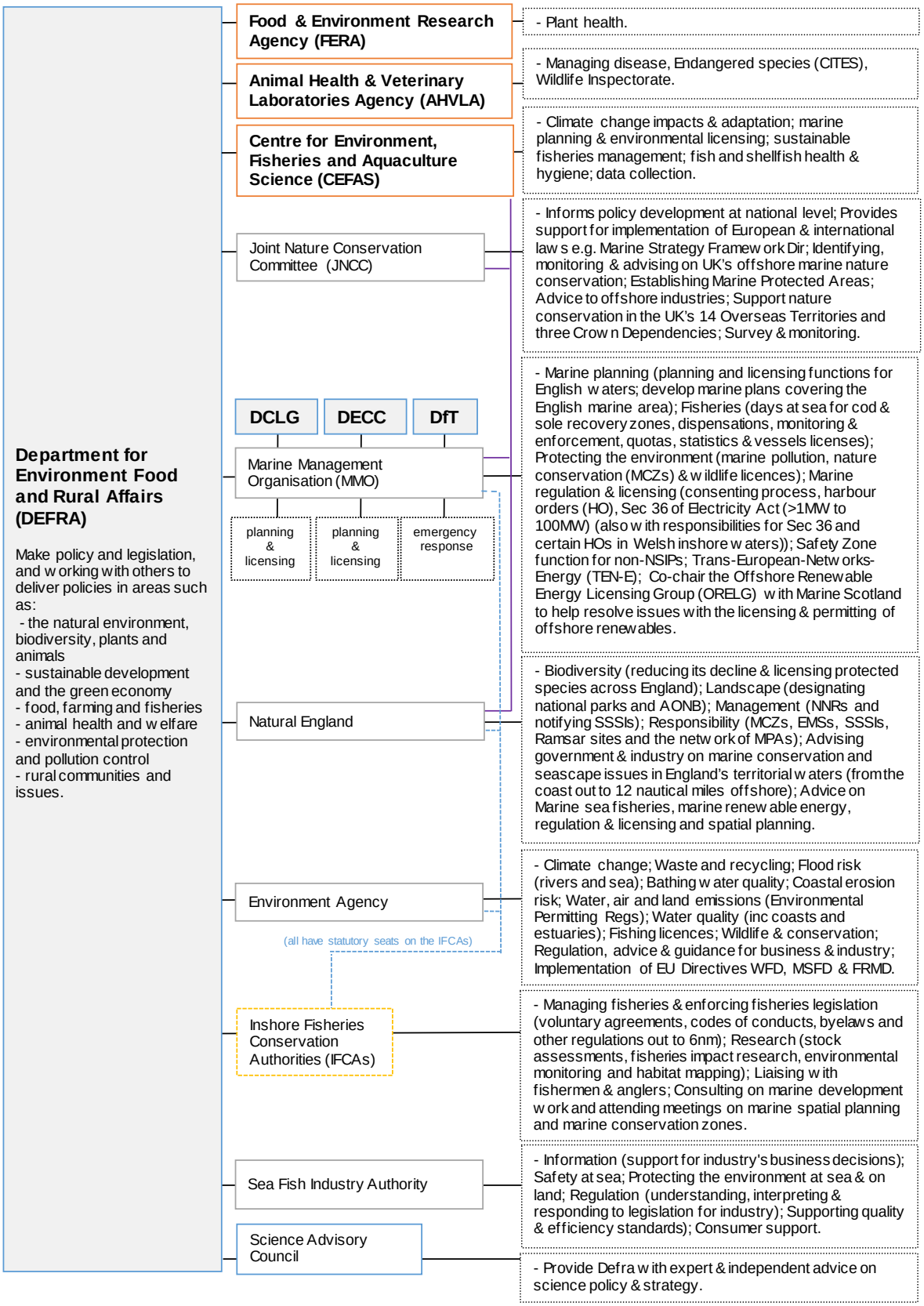

Fig.2. Department for Environment, Food & Rural Affairs (Defra).

Together with the more detailed roles described for each body in Fig. 2, Natural England[8] remains the government's statutory conservation body advising government and industry on marine conservation and seascape issues in English territorial waters (out to 12 nautical miles). Their remit as stated in the Natural Environment & Rural Communities Act 2006 is to 'ensure that the natural environment is conserved, enhanced and managed for the benefit of present and future generations, thereby contributing to sustainable development'. Amongst other things, Natural England is responsible for recommending Marine Conservation Zones (MCZs) introduced through the 2009 Act, combining the new zones with existing designated areas to provide an ecologically coherent network of marine protected areas (MPAs) within territorial waters.

The Joint Nature Conservation Committee (JNCC)[9] provides conservation advice to the UK Government and devolved administrations on UK-wide and international nature conservation and plays a key role in the UK offshore marine nature conservation (12 nm to the UKCS). This includes identifying, monitoring and advising on how MPAs are managed and providing advice on the impacts of offshore industries.

The Environment Agency (EA)[10] is the designated competent authority with the key role of implementing the European Water Framework Directive in England (and Wales). This directive relies on the ability to determine what is Good Ecological Status [17,18] and the Agency has the role of delivering this in the area for which they have responsibility, out to varying distances from the coastal baseline depending on the aspect in question. For example, the Agency permits land-based water discharges out to three nautical miles and waste regulation through the Environmental Permitting Regulations 2008 out to twelve nautical miles, establishing and enforcing environmental standards through requiring compliance monitoring by licensees. It reports on the state of the environment, flood risk management, and managing fisheries for salmon, sea trout, eel, smelt and lamprey out to six miles.

Fig. 3 shows the jurisdiction of marine organisations for English waters and examples of legislation for which they are responsible [19].

4. Significant changes brought about by the 2009 Act

The two new organisations within Defra since the review by Elliott et al. [7] are the MMO[11] (replacing and taking on the duties of the Marine and Fisheries Agency (MFA) in 2010) and the Inshore Fisheries Conservation Authorities (IFCAs)[12] previously known as the Sea Fisheries Committees (SFCs), both established under the 2009 Act (see Fig. 2). The MMO was established in April 2010 under the 2009 Act to discharge a number of marine functions on behalf of the UK Government. As an executive NDPB, the MMO reports formally to Parliament through the Secretary of State. It makes decisions on most marine developments and as the Government's principal regulator as well as its delivery body for English territorial waters and offshore marine areas (for those matters which are not devolved), the MMO will deliver functions on behalf of several Government Departments [20]. Its general objective is to contribute to achieving sustainable development, taking into account all relevant aspects and any effect that decisions in one area will have on any other area. The 2009 Act gave the MMO several important new roles, principally marine- related powers and specific functions

[8] http://www.naturalengland.org.uk/.

[9] http://jncc.defra.gov.uk/.

[10] http://www.environment-agency.gov.uk/.

[11] http://www.marinemanagement.org.uk/.

[12] http://www.marinemanagement.org.uk/fisheries/ifcas/index.htm

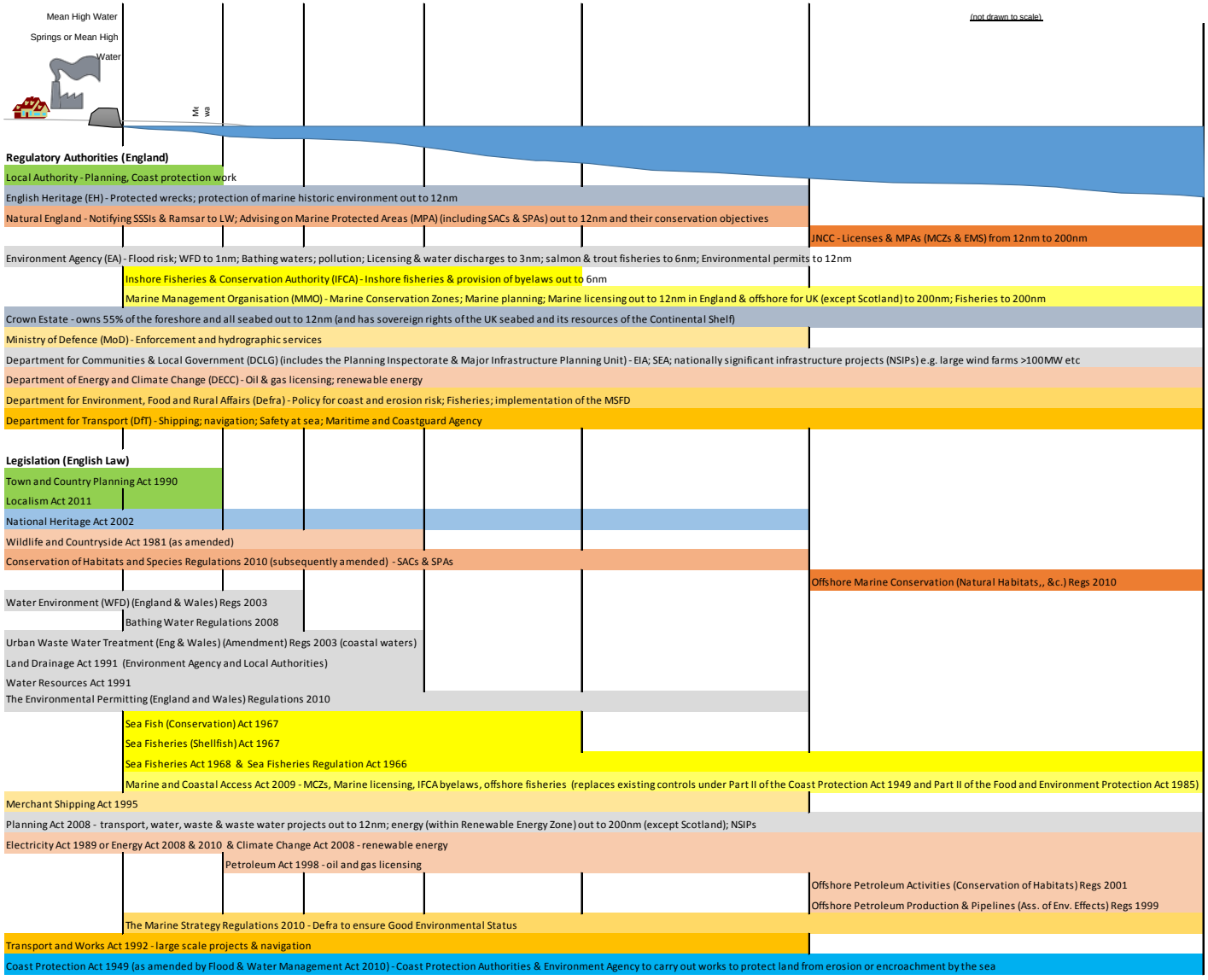

Fig.3. Jurisdiction of English marine organisations and coverage of legislation in the marine environment (adapted from MMO, 2013) [19].

previously associated with other departments, including inheriting responsibility from the Department for Transport for certain functions under the Harbours Act 1964. This includes responsibility for Harbour Revision Orders, Harbour Empowerment Orders and Harbour Reorganisation Schemes in England [21] and certain Harbour Orders in Wales. The MMO is also responsible for granting section 36 consents under the Electricity Act for developments between 1 MW and 100 MW both in English and Welsh inshore waters.

The UK Marine Policy Statement [15] provides the framework for preparing Marine Plans and provides direction for new marine licensing and other authorisation systems. Within this framework and under the provisions of the 2009 Act, the MMO is currently developing the evidence base and preparing Marine Plans for English waters. The East Inshore and East Offshore areas (known as the East Marine Plans) were the first areas to be selected for marine planning in 2012 and are currently at the review stage [22], with the South Marine Plans currently in development and at the evidence gathering stage [23]. Other key duties of the MMO include administering marine environmental licensing, managing marine fisheries (incorporating the work of the former MFA) including regulating days at sea for cod and sole recovery zones, dispensations for scientific research, monitoring and enforcement of licences, quotas, statistics and vessel licences. The MMO also undertakes nature conservation functions, with responsibilities for managing activities within newly designated Marine Conservation Zones (MCZs) and can use enforcement powers set out in Part 8 of the Act to enforce fisheries, licensing and nature conservation legislation. Any decisions taken by the MMO should meet statutory requirements under UK and EU legislation and be consistent with any obligations under international law.

The 2009 Act also brings up to date the management powers in which inshore sea fisheries resources are managed in England. The IFCA vision statement is to 'lead, champion and manage a sustainable marine environment and inshore fisheries, by successfully securing the right balance between social, environmental and economic benefits to ensure healthy seas, sustainable fisheries and a viable industry'. This change in emphasis of the purpose of the organisation is also reflected in 'conservation' being included in the new name of the organisation. The term 'right balance' can also be questioned – this may be interpreted as 'appropriate' but subject to the underlying wishes of the IFCA Board. The role of managing sea fisheries in English estuaries also required harmonising as in some estuaries, such as the Humber, it was within the previous Sea Fisheries Committees remit, whereas in others such as the Thames, it was within the EAs remit. In the latter it was transferred from the EA to the IFCAs, and to ensure the sustainable management of inshore fisheries, the MMO, Environment Agency and Natural England each have a statutory seat on the Board of the IFCA; however it has yet to be seen how conservation will be split between the statutory nature bodies and IFCAs.

5. Has the 2009 Act simplified management of the marine environment?

The 2009 Act has led to the streamlining of most marine consents, which in 1996 were the responsibility of several government bodies [7], thus now creating more of a 'one-stop-shop' for planning and licensing of estuarine, coastal and marine activities including dredging and dredged-material disposal. The responsibilities for marine licensing introduced by the 2009 Act and through secondary legislation implemented by the MMO have helped to simplify the requirement for licensing marine activities. The new streamlined system has modernised and consolidated licensing processes for marine activities in seas around England with the marine licensing provisions in Part 4 replacing some previous statutory controls including licences under Part 2 of the Food and Environment Protection Act 1985, consents under section 34 of the Coast Protection Act 1949 (excluding Scottish inshore region), dredging

permission under relevant Marine Minerals Regulations, consents under Paragraph 11 of Schedule 2 to the Telecommunications Act 1984 and licences under the Environmental Impact Assessment and Natural Habitats (Extraction of Minerals by Marine Dredging) Regulations 2007. In April 2014 all dredging for navigational purposes became a regulated activity requiring a licence from the MMO whereas previously only the disposal of dredged material was licensed. For many developers in the marine environment, implementing port and harbour projects, renewable energy developments, aggregate dredging and fishing, this has helped to remove the previous complexity and overlap. The 2009 Act also makes the MMO rather than the Department of Energy and Climate Change (DECC) responsible for non-oil and gas pipelines.

Although the Act aimed to make the licensing of marine activities and developments more streamlined, transparent and consistent, the fact that most guidance says that the 'MMO will be the single point of contact for most consents in England and most of the UK's offshore zone, making the whole process easier to manage and understand for developers' implies that there are still other departments with remits for licensing activities [24]. The 2009 Act also opted for the licensing of oil and gas to be in the continued remit of DECC under the Petroleum Act 1998. Some land-based activities may also require consents issued by other regulatory authorities such as the Environment Agency, Natural England and local planning authorities. Although Elliott et al. (2006) made the case that enacting the 2009 Act provided the opportunity to harmonise marine management through a radical restructuring of marine governance, this apparently has not been realised – many anomalies still exist even though there has been some improvements. Table 1 gives examples of these overlaps within the English marine environment.

A duplication of remit still exists between the MMO and the Environment Agency (EA) (both Executive NDPBs of Defra). The EA has the responsibility for land-based licensing activities under the Environmental Permitting Regulations (EPR), which rationalise various permitting regimes that control pollution into land, air and water, from industry and domestic activity into a common framework that is easier to understand and use than the previous consenting regimes. The EPR spans from the terrestrial zone out as far as the seaward boundary of the territorial sea for England (and Wales) (12 nm). However, various marine activities are either licensed solely under the EPR or require a dual consent under both the EPA and a marine licence under the 2009 Act. Ship dismantling and land claim projects (previously widely termed reclamation) are exempt from a marine licence under the 2009 Act but are regulated solely under the EPR.

As the 2009 Act limits the marine licensing area and the MMO jurisdiction to below MHWS, a marine licence cannot extend landwards beyond this point. Waste activities wholly taking place below MHWS will be exempt from an Environmental Permit as they will be regulated through a marine licence, but with consultation of the Environment Agency. However waste activities that are largely based in marine waters, but have an aspect that extends above Mean High Water Spring Tides (MHWS) require both a marine licence under the 2009 Act and an Environmental Permit under the EPR [25]. One example relates to the discharge of trade effluent and sewage from land-based sources to tidal waters. This activity requires a permit under the EPR for the material being discharged but also a marine licence to cover the marine environmental and safety aspects of the construction and location of activity; for example the building of the effluent discharge pipeline. Both licences are required as the two permitting processes serve different purposes, the marine licence focuses on the environmental impact of the activity (generally in the building of the infrastructure, the sewerage) on the marine environment,

Table 1 Examples of marine activities still managed/licensed by numerous bodies

Examples of Anomalies	Government bodies with overlapping responsibility within England
Fishing managed within 6nm, then beyond 6nm	Environment Agency for salmon and trout fisheries out to 6nm. IFCAs for fisheries within inshore waters out to 6nm. MMO lead body for the management of fisheries measures in line with the CFP in areas beyond 6nm.
Pipeline vs vessel discharges	The Environment Agency has the authority to regulate shore-based and pipeline discharges. The MMO regulate discharges from vessels (such as dredged material).
Designating Marine Protected Areas (MPAs) Inshore vs Offshore	Natural England can designate and establish conservation objectives for MPAs designated within territorial waters (12nm). JNCC are responsible for advising government on which offshore (>12nm) MPAs should be designated and establishing their conservation objectives. IFCAs also have remit for conservation within inshore waters (<6nm). MMO is responsible for enforcing measures relevant to MCZs, including MMO byelaws, fishing licence conditions, and CFP regulations. The MMO undertakes nature conservation functions, with responsibilities for managing activities within newly designated MCZs and can use enforcement powers set out in Part 8 of the Act to enforce fisheries, licensing and nature conservation legislation.
Implementation of the WFD and MSFD – spatial overlap.	The Environment Agency has responsibility for the implementation of the Water Framework Directive to the bay-closing-lines (generally out to 1nm). The MMO has a role in supporting the implementation of the Marine Strategy Framework Directive as well as its national co-ordination role under the Common Fisheries Policy. Its jurisdiction extends from the high water mark (which extends into estuaries) creating overlap

whereas the environmental permit for the water discharge (the sewage) would focus on the water quality impacts of the activity (generally through the operation). Secondly, the installation of a new fish farm if sited below Mean High Water or within the tidal constraints of a river would also require a dual consent. Depending on the size and location, it may also require consideration under Marine Works (Environmental Impact Assessment) Regulations 2007 (as amended) and permission may also be required from the Environment Agency. A third example relates to aquaculture where waste discharge from fish cages unattached or attached even tenuously to land would be licensed under the land regulations, whereas they are technically at sea and may be regarded as sea disposal. Hence in the previous regime, there were reciprocal controls under the land-based and vessel-based pollution regulations.

Although several duties, functions and responsibilities have been transferred to the MMO, given that there are other departments under Defra providing other protection for the marine environment (e.g. Natural England, Environment Agency), there are still several other government departments retaining some role in managing the marine environment, particularly with regards to marine licensing. For example, firstly, the MMO is responsible for licensing offshore energy generating installations including windfarms, wave and tidal devices between 1 MW and 100 MWs. However, windfarms generating more than 100 MWs and other nationally significant infrastructure projects (NSIPs) will be licensed by the National Infrastructure Directorate created within the Planning Inspectorate of DCLG under the Localism Act 2011. NSIPs are usually large scale developments such as new ports and harbours, power generating stations and electricity transmission lines which require a type of consent known as 'development consent' under procedures governed by the Planning Act 2008 (as amended by the Localism Act 2011). The MMO are statutory advisers to NSIPs and responsible for the enforcement of

any deemed Marine Licence (dML) conditions. Secondly, the 2009 Act excludes from marine licensing most activities relating to exploring for, or producing oil and gas (section 77 of the 2009 Act), as such activities are regulated under the Petroleum Act 1998 (section 3) or the Petroleum (Production) Act 1934 (section 2) and regulated by DECC. This also includes licensing for the construction or maintenance of a pipeline or establishing or maintaining an offshore installation. Lastly, Carbon Capture and Storage, unloading and recovery are also licensed under section 4 or 18 of the Energy Act 2008 (c. 32) and licensed by DECC.

6. Addressing the overlap

As government bodies continue to have overlapping duties and functions in the marine environment, several initiatives have been implemented to provide clarification. For example, as the MMO and EA have overlapping duties with respect to some marine activities and advisory roles on many others, a Memorandum of Understanding has been established 'to ensure effective, consistent and clear communication of management decisions for the marine environment' [19,24]. This indicates that there is still a duplication of responsibilities in the areas of marine planning, monitoring, flood defence consents, fisheries management and enforcement.

Following a review carried out by the Department for Business Innovation and Skills in 2012, which highlighted that businesses found it difficult to understand and deal with overlaps between marine regulators, Defra published a Coastal Concordat [26]; hence this is an indication that the Act had failed to produce a 'one-stop-shop' for industry. The Coastal Concordat aims to provide a framework within which the separate processes for the consenting of coastal developments in England can be better coordinated, and provides applicants with a single point of entry spanning all of the many regulatory systems. The Concordat has been developed by a working party led by Defra in collaboration with Department for Communities and Local Government, the Department for Transport, the MMO, the EA, Natural England and the Local Government Association's Coastal Special Interest Group representing coastal authorities. The Concordat approach can be applied to any applications for individual projects, if they span the intertidal area in estuaries and on the coast and require multiple consents including both a marine licence and planning permission from the local planning authority.

7. Discussion

The Marine and Coastal Access Act, passed in 2009, arguably took a large step towards the integrated management of the marine environment. Its key philosophies of marine spatial planning and marine conservation zones go a long way to supporting the effective implementation of the Habitats and Birds Directives and other EU water policy. Prior to the 2009 Act, over 80 Acts of Parliament regulated activities both on land and within the marine environment. The 2009 Act arguably shows that the UK has moved towards a more holistic and integrated approach, giving greater clarification and a more consolidated legislative approach to the management of the marine environment. It has been proposed by Rodwell et al. that the 2009 Act with its new management bodies (MMO and IFCAs) and new legislative tools (MCZs) provided an opportunity to enhance marine governance outcomes [27].

However despite this, it is questionable whether the 2009 Act could and should have gone further as suggested in Elliott et al. (2006). Previous reviews [11] have highlighted a number of inadequacies in the 2009 Act in relation to protecting marine conservation [28], with the Act being described as a 'hornet's nest' [13] with respect to the abilities of the IFCAs, ambiguities in the marine planning process and the management of marine conservation zones. It was anticipated by Elliott et al. [7] that through

the introduction of the 2009 Act and the creation of the MMO, an opportunity to provide a 'one-stop-shop' for streamlining marine consents and the overall management of the marine environment would be taken. However despite the 2009 Act promoting an ecosystem approach to marine management, data are still collected sectorally and there is not a 'one-stop-shop' to obtain data on the marine environment. Hence a more adventurous approach to streamlining the plethora of marine bodies and thus overcoming overlapping remits had been advocated. For example, the MMO and the IFCAs both have a remit for fisheries and conservation and overlapping responsibilities from the high water to 6 nm limit, and they could logically be merged into one body thereby removing an anomaly and a duplication of responsibility.

The 2009 Act could have been more ambitious in rationalising the number of departments and their respective responsibilities for the management of the marine environment, promoting a more unified single marine body with overall responsibility. There are still too many agencies and government bodies involved in managing the marine environment (Figs. 1 and 2), and although each one is very familiar with their own duties, they do not often have the time or capacity to consider all the other marine sectors. It is of note that the nature conservation bodies are still largely preoccupied with the Natura 2000 legislation, the EA with the environmental quality legislation and the MMO with the marine activity legislation. International and European marine requirements are mainly delivered through Defra, but it still relies on the advice and recommendations of its multiple agencies and bodies with a marine remit. The creation of the MMO now provides a single authority that can oversee many aspects of the marine licensing process and the development of marine spatial plans for English waters; however its creation just adds another player to the overlap of various marine remits of Defra.

If new legislation cannot address and reduce the complexity of governance in England, then the key to better management may be in the form of better coordination between government departments which currently may have ineffective communication and lack of coordination. Although the Coastal Concordat and numerous Memoranda of Understanding are some of the initiatives taken by Government and regulatory bodies to achieve a more efficient, coordinated regulation, the very fact that a number of these exist to provide details of what is to be jointly delivered, defining respective roles and responsibilities between the MMO and the different agencies indicates that an overlap in governance still exists and the 2009 Act has done little to simplify marine management.

The plethora of regulators indicated here and the anomalies and overlaps between them are the result of the large number of legislative instruments [8]. Those instruments were developed because of sectoral controls on marine activities and the piecemeal approach to tackling those activities but also because of the legislative hierarchy from global to local instruments, e.g. the UN Convention on Law of the Sea, through EU Directives to English legislation. There have been many requests to create a holistic and integrated system [1] and only that would simplify the regulatory system and reduce the administrative burden. However, this would require top-down governmental initiatives at a time when countries are wanting to reduce the bureaucracy (i.e. the 'Red Tape Challenge' in England). As shown here, although the 2009 Act created the MMO to be the regulator for most activities in the marine environment, other government agencies still retain a management function. Although in Elliott et al. [7] a plea was made to use the opportunity to harmonise marine management through a radical restructuring of marine governance, this is apparently not the case, with many anomalies still existing despite some improvements in marine planning and MCZs. The example presented in this case, of England, is unlikely to be unusual and although there are no directly comparable studies of other

countries, previous work [2] has shown that the degree of complexity is likely elsewhere. However despite this criticism, the 2009 Act does represent an important piece of legislation for the English marine environment [11] and points the way to an ecosystem based management approach to deal with marine and coastal issues. The lessons here are relevant and applicable not only to European seas and the European Member States but also to other global areas, for example during the implementation of the US Oceans Act 2000 [29]. It is considered here that as the latter attempts to achieve holistic and integrated management through a Commission rather than an Agency then it faces the same difficulties as in England albeit on a large scale.

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