North Devon Marine Pioneer

Marine Working Group Workshop

WORKSHOP REPORT

17th September 2018
at the Landmark Theatre, Ilfracombe

Report prepared by: Chrissie Ingle, Marine Pioneer Coordinator and the North Devon Marine Pioneer Steering Group

Contents

Introduction

On the 17th September 2018 at the Landmark Theatre, Ilfracombe, the North Devon Biosphere's Marine Working Group gathered for the 3rd Marine Pioneer stakeholder workshop. The Marine Working Group learned about the progress of the North Devon Marine Pioneer and helped to prioritise future work.

The aim of the day

The aim of the day was to update the Marine Working Group on the Marine Pioneer and its demonstration projects, to help the SWEEP team develop the social aspect of the risk register for the natural assets of North Devon, and to prioritise possible management and/or governance actions, that could be delivered through the WWF's UK SEAS project.

North Devon Marine Pioneer updates and North Devon projects

The presentations that were given throughout the day were there to help the Marine Working Group understand how each of the demonstration projects were progressing, and to highlight some of the interesting local projects that are helping to realise the vision and the goals that the Marine Working Group set at the first workshop, back in March 2017[1]

Most of the following presentations can be found on the North Devon Marine Pioneer events webpage www.northdevonbiosphere.org.uk/marinepioneerevents.html

An overview of the Marine Pioneer

Chrissie Ingle, North Devon Marine Pioneer Coordinator, presented the overview on behalf of Aisling Lanning, on the work so far across the two Marine Pioneer areas (North Devon and Suffolk). Chrissie summarised what the Pioneers were originally set up to do and what work they have done so far, with a particular focus on North Devon.

She then presented the new Marine Pioneer overview diagram (below), which has been used to help communicate about the Marine Pioneer, nationally. This diagram shows that underpinning all the pioneering work that is being delivered in North Devon and Suffolk are the people, and that we must make sure that we are monitoring, evaluating and reporting what we are doing, to make it effective.

In brief, the Marine Pioneer is: gathering evidence about our marine natural assets and the flows of benefits that our marine natural environment provides; determining the best framework for delivering improvements to our natural environment; and testing some of those ideas, through demonstration projects.

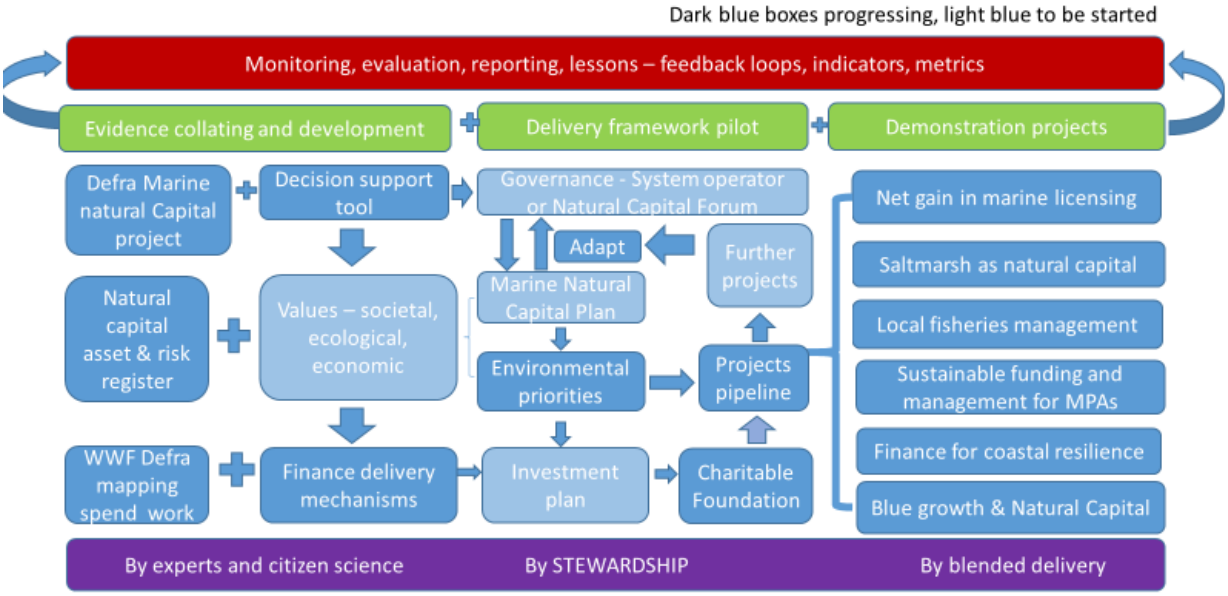


Figure 1 Marine Pioneer Programme Overview diagram as presented to the Marine Working Group

[1] https://www.northdevonbiosphere.org.uk/uploads/1/5/4/4/15448192/workshop_report_vision.pdf

Goal 1: Improving local fisheries management and seafood sales

With a high-level aim of a viable and sustainable fishery for an optimised local economy; and a specific objective for the integration of fishery and environmental management, a local fisheries improvement plan, areas designated for fishermen, and a better understanding of local markets for seafood, leading to increased sales of locally caught fish.

Fisheries Research and Management Plans – Libby West, Devon & Severn Inshore Fisheries & Conservation Authority (IFCA)

Libby presented a future project idea, that we are seeking funding for, to develop fisheries research and management strategies for the Bristol Channel. This project would take stock of all the available science on ecology and biology for species in the Bristol Channel, alongside information on fisheries management.

Why is this needed? Libby explained that there are a lot of organisations working on fisheries research, including the IFCA, and they tend to be reactive in their research due to limited resources. A plan for future research would help identify gaps and prioritise work through D&S IFCA helping them to invest time and resources more effectively.

The added value of doing this work through the Marine Pioneer means that local knowledge and anecdotal information can be used, as well as reviewing other factors which may affect fish populations, such as aggregate dredging, water quality, tidal power and water intake for nuclear power stations. It could also include a review of socio-economic evidence and heritage information.

The project will help to investigate the potential for regional/local management of fisheries, and provide a more local level focus, by identifying which species might be suitable for a more local approach to management and where it's not appropriate, as well as moving towards a more ecosystem-based approach to management that considers all industries and activities that impact fish stocks.

Bristol Channel Herring Project – Adam Rees, Blue Marine Foundation

Adam presented a Marine Pioneer demonstration project that is being delivered by Blue Marine Foundation. Adam and the Blue team, in collaboration with Swansea University, are investigating the heritage herring fishery in the Bristol Channel. This project came about through discussions with North Devon's fishermen who believe that Bristol Channel herring is a separate stock (due to spawning patterns) and because the Bristol Channel is thought to be an important spawning ground for many fin fish species, including herring.

In the first step, herring will be collected from the fishermen at Minehead and Clovelly and the fish will be tested to determine whether they are genetically distinct from other stocks of herring. The next step, this winter, will be to gather data on spawning grounds, where they are, how big they are and when they are used.

Why is this needed? There is very little data to understand the ecological and economical importance of spawning grounds to North Devon. This helps us understand the usefulness of anecdotal evidence and how it can be used to direct research.

This project, which complements the fisheries research and management plans, will start to provide an evidence base that can be used to understand the impact that commercial developments and activities have on habitats and species, and assess current management and protection of critical habitats.

Goal 2: Robust protection of biodiversity

With a specific aim to have the best managed MPAs in the UK, and to ensure adequate assessment of the impacts of terrestrial activity on coastal and marine areas.

UK SEAS updates – Jenny Oates, Penny Nelson and Toby Roxburgh, WWF

Jenny Oates, UK SEAS Project Manager started by giving an overview of the work that UK SEAS team have achieved so far. Jenny was pleased to be able to report that the Marine Protected Area (MPA) toolkit for writing management plans, which was presented to the Marine Working Group in February, was used by the

joint Nature Conservation Committee to inform their template for offshore MPA management plans. She also showed the Marine Working Group their short film about MPAs and the UK SEAS project[2]

At the last workshop in February 2018 the Marine Working Group participated in two group exercises with the UK SEAS team. The first group exercise provided a picture of what marine governance in North Devon and a short report has been produced from this[3]. The second group looked at different methods of finance for our marine environment. From this, the UK SEAS team have progressed two of their areas of work. Firstly, they have been investigating ways of making governance of the marine environment more effective, with a particular focus on MPAs. Secondly, the UK SEAS team have been looking at how to finance this marine governance.

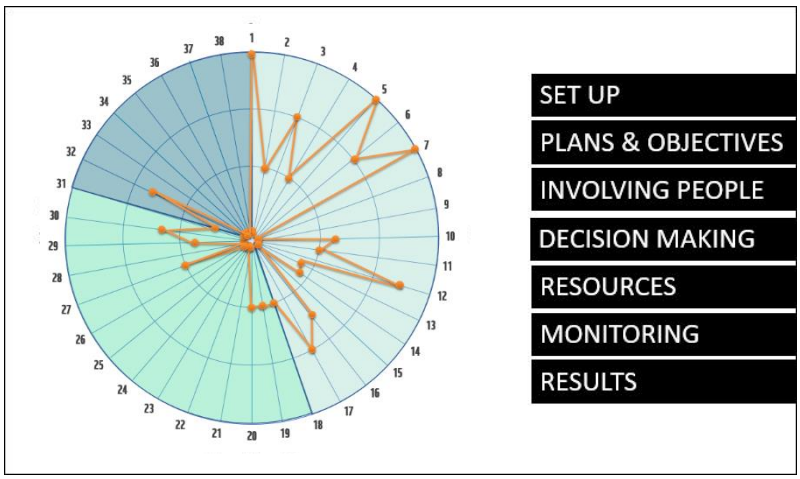


Figure 2. An example of the compass analysis. Each point relates to a question about management and the nearer the point to the outside of the circle the more effective that criteria for management is. The questions are about the 7 different criteria across 3 phases – creation, pioneer and self-sufficiency.

Penny Nelson, Marine Policy Officer WWF, explained that the UK SEAS team have been looking at ways of measuring management success and have used a tool called The Compass (See figure 2 and Appendix B). They are using this tool to measure the effectiveness of MPA management, to see what is working well and where additional resources are needed.

The Compass analysis starts with a survey with a set of questions that cover the different stages in the development of an MPA, from creation to self-sufficiency. As there is no current method being used to determine how effective an MPA is, the UK SEAS team are testing this idea through the Marine Pioneer, to see if it can be used locally and nationally.

Penny updated the Marine Working Group on the interim results of this survey for North Devon and encouraged further participation especially for those that might have a good understanding of the Hartland Point to Tintagel Marine Conservation Zone (MCZ) and the Bristol Channel Approaches Special Area of Conservation (SAC).

Later in the day Toby Roxburgh updated the group on how WWF UK SEAS are looking at encouraging investment for MPAs and wider seas. So far, there have been several workstreams that have been completed, including understanding the key benefits that our marine ecosystems provide to people (with the SWEEP team)[4], identifying where spend on marine management currently happens and investigating sustainable finance mechanisms[5] - looking at where potential investment might be needed to enhance our marine natural environment and where that investment might be sourced.

This work will help prioritise what investment is needed in the marine environment in North Devon, which will result in a pilot scheme for North Devon that will include governance and finance arrangements.

[2] https://ukseasproject.org.uk/#homepage%20video
[3] Who's in charge around here? Perceptions of marine governance in North Devon https://ukseasproject.org.uk/cms-data/reports/Perceptions%20of%20marine%20governance%20in%20North%20Devon.pdf
[4] North Devon: Ecosystem services https://ukseasproject.org.uk/cms-data/reports/North%20Devon%20marine%20benefits%20fact%20sheet%20final.pdf
[5] Sustainable financing mechanisms for Marine Protected Areas in North Devon https://ukseasproject.org.uk/cms-data/reports/WWF%20Sustainable%20Finance%20Mechanisms%20Report%20June%202018.pdf

Goal 3: Increased local decision making

With a high-level aim to ensure effective governance at all levels

North Devon Marine Natural Capital Plan – Chrissie Ingle, North Devon Biosphere

Chrissie talked about a new project idea – a marine natural capital plan for North Devon. Natural Capital Plans are identified in the government's 25 Year Environment Plan as a way of developing area integrated plans, when considering the natural environment, but these are terrestrial plans with no mention of the same for marine. The Marine Pioneer offers an opportunity to deliver a marine natural capital plan, by bringing all the parts of the Marine Pioneer, plus other work that is being done locally, into one useful package (figure 3). The plan should include

- Spatial knowledge of our natural marine assets.
- Economic knowledge of spending, investment and value from the marine environment.
- Social understanding of values - what are the benefits and who are the beneficiaries. Bringing people to the plan and giving them ownership.
- Options and trade-offs locally – this will be the most challenging but must be understood when there are multiple use and potential conflicts in our marine environment
- Spatial and holistic decision making – how can this be made easier – especially given the options and trade-offs.

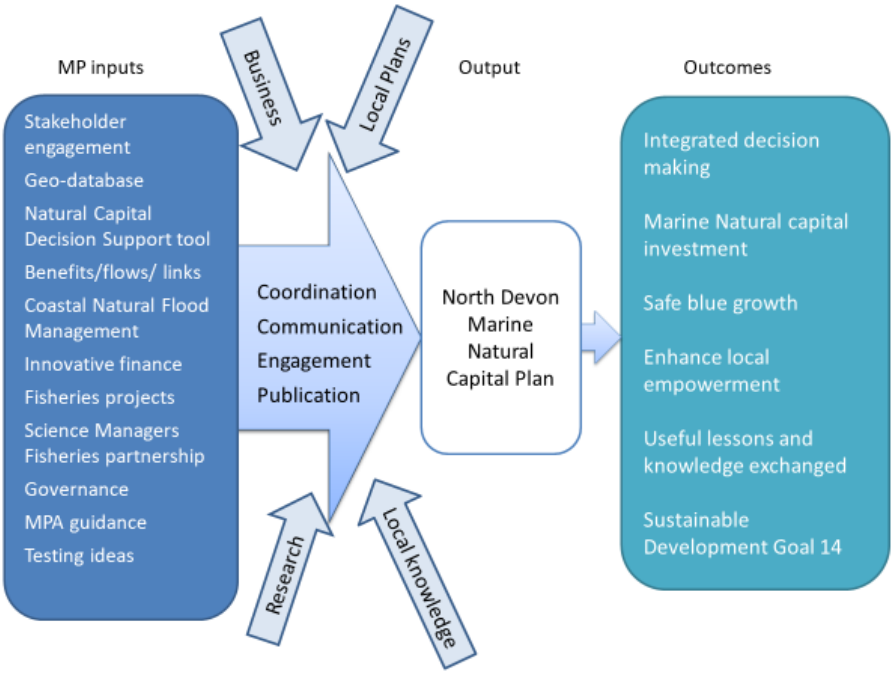


Figure 3. A Marine Natural Capital Plan for North Devon including the Marine Pioneer demonstration projects and workstreams and external activities, plans and people

Goal 4: Define and implement a response to climate change

Natural Flood Management, saltmarsh project – Dr Katrina Davies, University of Exeter

Dr Katrina Davis, a SWEEP impact fellow based in the Land, Environment, Economics and Policy Institute, University of Exeter, gave an update on their work on identifying potential investment opportunities for saltmarsh creation in North Devon. Katrina explained that the focus for their work has been in the Taw Torridge estuary. Starting with mapping the extent of historic saltmarsh against current saltmarsh, and LIDAR data. This produced 57 potential sites for realignment with an average area of 16ha, which were then prioritised using the following criteria:

- An estimate of opportunity costs to agriculture - those costs associated with choosing one option (current agricultural land) over another (saltmarsh grazing)

- An estimate of direct costs (savings and expenditure), such as property damage and the actual cost of realignment
- Estimate other benefits such as carbon sequestration and recreational use.

These costs and benefits were modelled using the following 3 scenarios:

- Scenario 1: Ignore property damages
- Scenario 2: Exclude all sites with properties
- Scenario 3: Incorporate property losses

This resulted in four potential sites suitable for realignment across all scenarios, that have a net value that ranges from ~ £152k to £185k per year. The team also found that recreation values and property damage costs had the most impact when prioritising sites.

The next steps for the team is to look at the geomorphology and tidal dynamics of the four sites.

Goal 7: Reduce marine litter

Plastic Free North Devon – Claire Moodie, Surfers Against Sewage

This project is external to the Marine Pioneer but is supported by many of the organisations that sit on the Marine Working Group. Claire Moodie, Plastic Free North Devon[6] coordinator explained that the Plastic Free North Devon group's mission is *"to reduce plastic pollution in North Devon to protect our environment"*

They hope to achieve this by working with local communities, businesses, organisations and government to:

- Raise awareness of how waste plastic affects our environment
- Reduce the use of plastic in North Devon
- Clear plastic waste from our coasts, waterways, countryside and urban areas
- See waste plastic recycled and disposed of in an appropriate way

They have gathered an extensive following through Facebook and as well as supporting the Surfers Against Sewage 'Plastic Free Communities' project and encouraging beach cleans across North Devon they have set up a water bar at local events (providing refills for water bottles) and have undertaken a summer visitor campaign providing beach patrols, and information in the form of films[7] and leaflets. Recently, they have formed a consortium with North Devon Council and other local partners including The National Trust, Devon County Council, Petroc, 2-minute beach clean, North Devon Biosphere and North Devon Coast Areas of Outstanding Natural Beauty which will help keep the momentum for the project going.

Goal 9: Sustainable coastal tourism and leisure

North Devon Surfing Reserve & Watersports Survey – Dominie Dunbrook, NDC

Dominie Dunbrook, Senior Economic Development Officer at North Devon Council, gave an update on two North Devon Council led projects that have had assistance from the SWEEP team; the North Devon Residents Watersports Survey and the application to make North Devon the 11th World Surfing Reserve.

The aim of the watersports survey was to update and understand the location, intensity, preference and impact and benefits of different water-based activities. This was done as an online survey, with 1,194 respondents. Dominie gave an update on the early key findings, which included: most respondents took part in watersports (70%) with surfing the most popular followed by sea kayaking. 81% spend between £1- £20 per day when doing their activity with 38% spending £100 and £500 annually on equipment, of which 54% buy local. 93% said that the quality of their environment is very important, with 63% in support of some form of environmental management, which is higher than expected.

The area has been identified locally as having everything needed to be recognised as a World Surfing Reserve, including excellent surf breaks from Saunton to Lynmouth, a special natural environment that has been recognised with its various designations. A strong surfing economy which brings £53million to the region annually, the England sporting body for surfing is located in Braunton, and local heritage and culture linked to surfing.

[6] Facebook: @plasticfreenorthdevon
[7] Plastic Free North Devon - You Tube films https://www.youtube.com/channel/UCplKnFrODb2BEYGkutfp0aQ

Group workshop 1: The Natural Capital Assets and Risk Register Workshop of the North Devon Marine Pioneer – Dr Siân Rees, SWEEP Impact Fellow, University of Plymouth.

During the working group meeting four groups were formed to consider the following questions linked to the ecosystem service benefits of 1) Food provision 2) Recreation and tourism 3) Healthy climate and clean water and sediments and; 5) Natural hazard protection. A facilitator led each group and a scribe nominated to take detailed notes of the discussion. Groups were provided with an A2 table to fill in to capture the qualitative and qualitative outputs and any key discussion points around the benefit-asset relationship. The key questions were:

- What is the importance of the benefit-asset relationship? (Risk exposure). 3= high importance; 2= medium importance; 1= low importance;
- What is the likelihood that the benefit will change if the quality or quantity of the asset is reduced? (Sensitivity). 3= high; 2= medium, 1= low; and
- What are the warning signals, thresholds, red flags that the benefit –asset relationship is at risk? (Thresholds, community-defined criteria for sustainability). Group were encouraged to quantify their statement (an increase in, a reduction of, more, less, fewer etc.)

The participants of the North Devon Marine Working Group discussed the risk to the asset-benefit relationship within the context of the North Devon Marine Pioneer. Table 1 provides a summary of the results and demonstrates in the first instance that the marine habitat assets function to deliver ecosystem service benefits (Table 1). When the risk scores are summarised saltmarsh, intertidal sediments (mud) and intertidal sediments (mud and sand), and subtidal sediments are the habitat assets subject to the most risk (Table 1). However, it must be noted that all habitats were assigned a degree of risk with the least risk assigned to biogenic *Sabellaria* reefs. This low score was attributed to the small patches of biogenic reef in North Devon and this score does not downgrade their status as an ecologically important habitat. The benefits of clean water and sediments, food provision and recreation and tourism considered by the group to be the most locally important benefits (Table 1).
Across all the benefits a range of pressures were defined linked to localised pressures (e.g. trampling, dredging), upstream pressures (e.g. farming) and pressures associated with predicted global change (e.g. sea level rise, storms).
The next steps to consider are how the current management underpins the asset-benefit relationships, how do the assets perform against policy targets and if any of the ecological, economic or social thresholds can be defined by available indicators. Subsequent analysis may further prioritise action. Overall, it is necessary to consider how a 'net gain' may be achieved when benefits and assets are closely linked. Thought may be directed as to how to support a reduction in risk across the suite of habitat-benefit relationships in order to underpin the resilience of the whole system.

The results of the workshop[8] will be integrated with the information derived from the development of a Natural Capital Asset Register for the North Devon Marine Pioneer. Improved knowledge of risk associated with natural capital assets and benefits will inform the development of a Natural Capital Plan for North Devon.

[8] Natural Capital Asset and Risk Register Workshop MWG Sept 19 https://www.northdevonbiosphere.org.uk/uploads/1/5/4/4/15448192/natural_capital_asset_and_risk_register_workshop_mwg_sept_19.pdf

Table 1. Summary table demonstrating the asset-benefit relationships and the overall risk register scores (local) as determined by the North Devon Biosphere's Marine Working Group. Risk was calculated as risk exposure x sensitivity. Shading indicates risk as red = high, orange = moderate, yellow = low

	Saltmarsh	Intertidal reef	Subtidal reef	Intertidal sediments (Mud)	Intertidal sediments (sand and muddy sand)	Subtidal sediments	Biogenic reef (Sabellaria)	Biogenic reef (Mussels)	The water column	Total risk by benefit (Sum of risk score/number of asset-benefit relationships
Food provision	9	9	9	9	6	6	1	9	3	6.8
Natural hazard protection	6	3	1	9	9	6	1	1		4.5
Healthy climate	9	6	6	4	4		3	3	6	5.1
Clean water and sediments	9			9		9	9	9	1	7.7
Recreation and tourism	6	3	3		9		4		9	5.7
Total risk by habitat asset (Sum of risk score/number of asset-benefit relationships)	7.8	5.25	4.75	7.75	7	7	3.6	5.5	4.75	

Group workshop 2: What next for management of the marine environment? - Jenny Oates, Sarah Young and Penny Nelson, WWF - UK SEAS team.

The UK SEAS team asked workshop participants to review ideas for management interventions, which had emerged during the UK SEAS project so far, from meetings, workshops and discussions. The ideas were separated into themes, and each group worked on a different theme. The groups were asked to discuss and vote, by each person placing ticks against their preferred/less preferred options. This prioritised which ideas to work up into an action plan, as a group. The detailed breakdown of each group's discussion can be found in Appendix D

Communications:

For the communications theme, the idea that was worked up in detail was around reviving the Lundy/Biosphere Reserve accreditation scheme. This would be a straightforward project to take forward and potentially a quick win, but it is not really innovative. The workshop participants were really enthusiastic about all ideas to improve communication about MPAs.

Monitoring:

In general, participants felt that they were not qualified to prioritise the monitoring management interventions – as this is quite a specialist area.

The '*move towards a fully documented fishery'* intervention had the most interest, but it was also discussed and agreed that the UK SEAS project couldn't really influence this area and was already being developed by Devon and Severn IFCA.

The group discussed the *'baseline assessment of what monitoring is currently happening and being planned'.* This is clearly a major issue and to address it properly would require a large project focusing on just this issue and trying to overcome the associated barriers. There are issues associated with this that the UK SEAS would not have the power to resolve e.g. academics reluctance to share unpublished data.

'Monitoring of social and economic activities in MPAs' also scored highly – but the group didn't have time to discuss this option. Potentially there could be greater scope for UK SEAS to be involved in this area and it could link with numerous criteria from the compass card, e.g. socio-economic baseline, what is the impact of the MPA, reporting benefits back to the community, communication.

Pressures and threats:

There were a lot of intervention suggestions in this theme. Many of these options received votes and there wasn't a stand out 'winner'. This could be because the interventions are quite discrete and specific to a particular MPA/issue and therefore really reflect individual's interests.

The intervention option which was discussed was '*provision of recycling facilities for the Oldenburg and fishermen at Bideford and Ilfracombe*'. An action plan was drawn up, but the main issue with this may well not be the provision of recycling facilities but the willingness of the local councils to pick up the recycling. It was also discussed how much of an impact this would have on reducing the pressure – and the participants were not convinced this would be significant.

Stakeholder engagement:

The top two ideas developed into outline plans from the participants in this group were:

1) Create fisher-scientist partnerships to monitor the effectiveness of closures of fish stocks and habitats
2) Actively engage with local communities to ensure their local expertise and knowledge is embedded within management.

The goal of the first was to develop trust with everybody benefiting from sustainable fish stocks and improved governance. The goal of the second was to achieve management that ensures local expertise is incorporated and people feel listened to. The first plan is being developed by the North Devon Biosphere, through the North Devon Marine Pioneer. The second intervention idea focused on looking at why different community groups have worked (or not worked), developing a forum, improving communication and having dedicated facilitation /coordination capacity. The challenges included: how to define a 'local community', dealing with stakeholder fatigue and how that information can be used by decision-makers.

Improving MPA governance:

Participants amended one of the pre-prepared ideas to read: "Create an overarching **regional** marine management body with **statutory** staff and stakeholder advisory forum **(s) for each relevant MPA**" and added a suggestion: "Create 'management statements' for each MPA (rather than full plans)". The discussion swung around between issues of scale, what management plans might look like, the need to be mindful of statutory agency's available time, and the role of user groups. Participants seemed keen to move away from a strictly features based management approach and focus on governance that enables local ownership of sites.

Feedback and next steps for the North Devon Marine Pioneer.

The feedback from the participants on the day was that although the workshops were challenging and there was a lot to discuss, the participants felt that they were relevant to them and they had the opportunity to contribute. The steering group for the Marine Pioneer have asked for analysis of workshop participation by the Marine Working Group and, over the early part of 2019, will be assessing the best way to continue to engage with the group to best use their valuable time.

The outputs from the Natural Capital Assets of the North Devon Marine Pioneer workshop will be integrated with the information derived from the development, by the SWEEP team, of a Natural Capital Asset Register for the North Devon Marine Pioneer. This will improve knowledge of risk associated with natural capital assets and benefits.

The WWF team will take away the information from the management of the marine environment workshop, combine it with the other information and research that has been developed during the UK SEAS project so far and will develop a suite of potential projects that will form part of the investment plan for North Devon's marine area, this will be aligned with the work of the SWEEP team and other Marine Pioneer partners, and the Landscape Pioneer.

The outputs from the Marine Pioneer, including the input from the Marine Working Group will contribute to the development of the Marine Natural Capital Plan for North Devon.

Appendix A: Agenda for the workshop

Agenda

17th September 2018
Pavillion Rooms, Landmark Theatre, Promenade, Ilfracombe EX34 9BZ

Overall objectives:

- To update the Marine Working Group on the pioneer's demonstration projects and how they relate to your original goals
- Using all the information collected through the mapping exercise, we will need your help to decide on the next priority actions - where to direct our time, energy and resources.

start time	Activity
09:30	Sign up and Tea and Coffee.
10:00	Welcome and introduction to the day – Chrissie Ingle
10:15	An update on the Marine Pioneer and other projects in North Devon. Short presentations:
- An overview of the Marine Pioneer – Aisling Lannin, MMO - Fisheries Research and Management Plans – Libby West, D&S IFCA - Bristol Channel Herring Project – Adam Rees, Blue Marine Foundation - UK SEAS update – Jenny Oates, WWF - North Devon Marine Natural Capital Plan – Chrissie Ingle, ND Biosphere - Natural Flood Management, saltmarsh project – Katrina Davies, University of Exeter - Plastic Free North Devon – Claire Moodie, Surfers Against Sewage - North Devon Surfing Reserve & Watersports Survey – Dominie Dunbrook, NDC - Marine Pioneer PhD research – Beth Wills, University of Surrey	
11:15	TEA BREAK
11:15	Presentation: North Devon's Natural Capital assets – Sian Rees, University of Plymouth
11:45	Activity: What are the risks to our natural assets and the benefits that they provide us with?
13:00	LUNCH
14:00	Presentation: Preliminary results from the MPA survey – Penny Nelson & Sarah Young, WWF
14:15	Activity: 'What next for management of the marine environment?
15:15	TEA BREAK
15:30	Presentation: Opportunities for investment – Toby Roxburgh, WWF
15:40	Feedback, final thoughts, and thank yous – Chrissie Ingle, BR
16:00	Finish

Appendix B Workshop attendees

First name	Last name	Organisation
Andy	Bell	North Devon Biosphere
Andrew	Bengey	Charter boat/RNLI
Cllr. Rodney	Cann	North Devon Council
Sarah	Clark	Devon & Severn IFCA
Roger	Covey	Natural England
Jon	Davies	Defra
Katrina	Davis	University of Exeter
David	Dooley	Appledore and Tiverton SAC
Dominie	Dunbrook	North Devon Council
Alex	Farris	Exmoor National Park
Brett	Grosvenor	Environment Agency
Cllr. Phillip	Hackett	Torridge District Council
Keith	Hiscock	Marine Biological Association
Tara	Hooper	Plymouth Marine Laboratory
Lou	Hoskins	Devon Maritime Forum
Peter	Howard	ND Biosphere Partnership
Chrissie	Ingle	North Devon Biosphere
Robert	Irving	Seascope
Rebecca	MacDonald	Somerset Wildlife Trust
Helen	Mann	National Trust
Angelo	Massos	Torridge District Council
Claire	Moodie	Plastic Free North Devon
Jenny	Oates	WWF - UK
Adam	Rees	Blue Marine Foundation
Sian	Rees	Marine Institute UoP
Malcolm	Roberts	Coastwise
Toby	Roxburgh	WWF - UK
Felicity	Sylvester	Sustainable Fish Education
Mike	Teare	Way of the Wharves
Libby	West	Devon & Severn IFCA
Nick	White	North Devon Marketing Bureau
Eirene	Williams	North Devon Coast AONB
Betheney	Wills	University of Surrey
Penny	Wilson	WWF - UK
Chris	Wood	Porlock Bay Oysters
Sarah	Young	WWF - UK

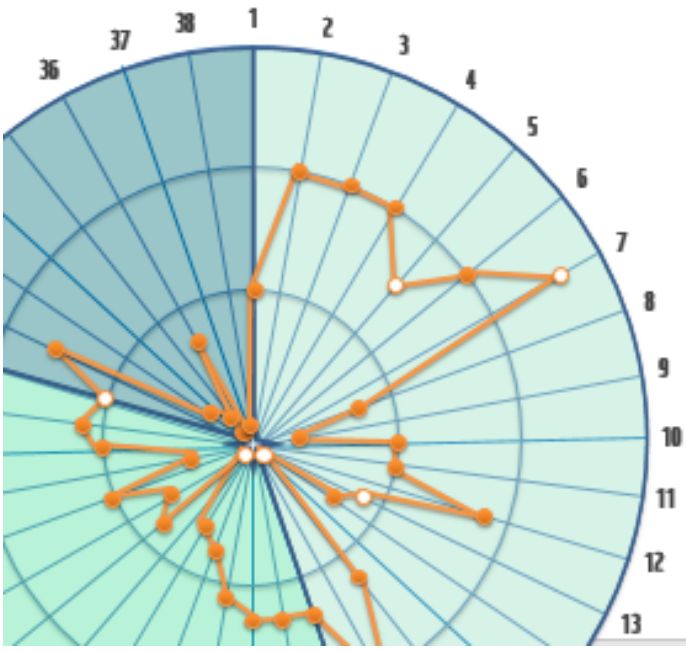
Appendix C: The Compass analysis for effective management

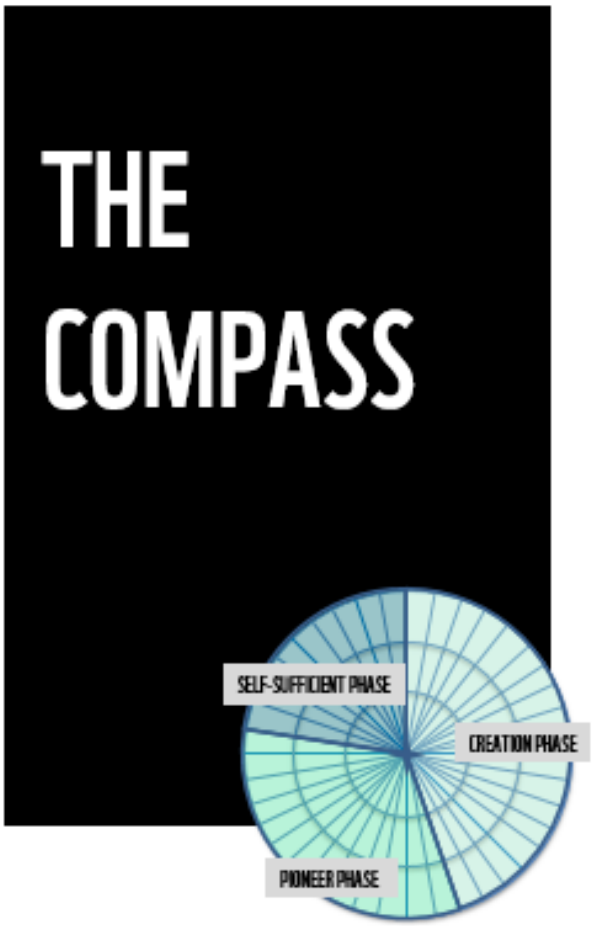
WWF's UK SEAS project is all about trying to improve how marine protected areas (MPAs) in the UK are managed. We hope to do this by testing new approaches to management in our case study areas in North Devon (with the North Devon Marine Pioneer) and in the Outer Hebrides. The first step in that journey is to understand how they are being managed at the moment, to gather baseline information on where we are doing really well, and where we could focus energy on improving. The Compass survey forms part of that baseline assessment.
It's a pretty neat technique.

The Compass divides the process of establishing an MPA into three stages:

1. The "Creation phase": In the UK we would call that the 'designation process'. This involves gathering all the data needed and working with stakeholders to develop management rules.
2. The "Pioneer phase": The pioneer phase is when management becomes operational and the management team starts monitoring and building programmes to support delivery of the objectives.
3. The "Self-sufficiency phase": By this point the MPA is well on the way to technical, organisational and financial self-sufficiency and the environmental and social benefits of the MPA are being felt.

Progress is measured using 38 criteria that cover a range of management issues including things like setting objectives, collecting information, creating plans, involving stakeholders and monitoring etc. Each criteria is scored out of 3, from 0 = it is not being done, to 3 = it is being done really well. The criteria are arranged around the outside of the compass. The stages and criteria may vary somewhat from one MPA to the next, however to achieve ***effective MPA management*** all of them need to be considered at some point. A quick look at the results will tell you what stage the MPA is at (creation, pioneer or self-sufficiency) and what the MPA is doing well on and what it needs to improve. The tool can be used to track the course of MPA development over time and help managers with day-to-day organisation of their MPA by filling in the progress made year after year.





1 Identify important areas for species & habitats
2 Identify stakeholders & their interests
3 Set up stakeholder participation process
4 Assess condition of important areas for species & habitats
5 Create socio-economic baseline
6 Identify pressures impacting species & habitats
7 Set MPA boundary based on areas of ecological importance
8 Establish zoning for activities
9 Establish management rules for zoned areas
10 Create a management body to set and monitor strategy
11 Create a management committee to implement the strategy
12 Establish environmental MPA objectives
13 Established socio-economic MPA objectives
14 Identify benefit sharing rules
15 Develop alternatives for displaced activities
16 Create clear lines of responsibility for governance
17 Ensure the MPA has legal status
18 Publicly communicate about the MPA
19 Support an active & inclusive stakeholder engagement process
20 Develop a management plan
21 Ensure adequate MPA staff
22 Ensure adequate infrastructures and equipment
23 Enforce management rules
24 Create a business plan fund long-term MPA management
25 Capacity build skills needed to run the MPA
26 Create education programme linked to MPA objectives
27 Monitor biological, social and economic factors
28 Monitor management activities against performance
29 Build a sense of responsibility for the MPA by stakeholders
30 Demonstrate the authorities take responsibility for the MPA
31 Effectively implement the management plan
32 Sustain & build on community involvement
33 Demonstrate that MPA is achieving objectives
34 Demonstrate that MPA is improving ecological condition
35 Demonstrate that MPA is providing socio-economic benefits
36 Report progress to the community
37 Update management plan/rules based on monitoring data
38 Create sustainable income stream to cover management costs

Appendix D: What next for management of the marine environment?

Group Discussion: Communication and Information Sharing

Group: Malcolm Roberts (Coastwise), Rebecca MacDonald (Somerset Wildlife Trust), Andy Bell (North Devon Biosphere Reserve), Sian Rees (Plymouth University), Claire Moodie (Plastic Free North Devon)

Facilitator: Jenny Oates Scribe: Sian Rees

Idea		**Votes**
Communicate to the public about MPA aims and objectives		
Create a zoning map of the management measures in the North Devon marine area		
Celebrating the past and current fishing industry		
Education about the natural environment and the benefits it provides		3 ticks
Endorsements/accreditation schemes for commercial organisations who adhere to good practice inside MPAs		5 ticks
Create videos for engaging the public with the marine environment on social media		1 tick
Updating and publicising the code of conduct for Taw Torridge estuary users		
More information onsite about designations and reason for designations		
Creating awareness of *Sabellaria alveolata* (reef formed by the honeycomb worm) on tourist beaches.		
Report the impact and benefits of MPAs		2 ticks
Making use of historical data e.g. the Tavern log book on Lundy Island		
Make minutes and papers from decision making meetings publicly available		
New idea: Revive Lundy Biosphere Reserve accreditation scheme		
New idea: create a video of Sabellaria feeding so that people can understand the impact of trampling damage		
New idea: information boards about MPAs (including links to digital material)		2 ticks
New idea: Use local media (e.g. Voice radio)		1 tick
New idea: Use Blue Planet type examples of UK marine environment on TV (e.g. Countryfile)		1 tick

Discussion

- QR codes for marine comms e.g. Nash Point
- Need more UK Blue Planet examples as 'hook' for marine conservation
- Communication with high school teachers
- Messages get lost when funding fails. Need someone dedicated to sourcing funding and long term plan, marketing.
- Marine wildlife tours accreditation for Lundy ran out of resources but could be revived
- For MPAs, people need to know that the area exists, is important, and what they can do
- We need to engage 'the masses'. How to get Countryfile involved in the Pioneer? What is the hook? Plastic free North Devon were on Countryfile

- Engage local news- bi-weekly feature, BBC spotlight, Voice radio (regular features)

Idea/brainstorm – Endorsements and Accreditation schemes

** Need to be self-policing **

Lundy and Biosphere Reserve Marine Accreditation scheme

- Funding and staff change previously resulted in this scheme fizzling out
- Need to restart the scheme- marketing
- Review
- Talk to the skippers- they loved the leaflets, the badge for their boats and the training
- Create info sheets for species (this was started previously but not completed)
- Create a private group that could report dynamic sightings
- Put money aside for future funding and think about sustainable funding

Seafood

- Seafood UK
- Needs changes in management

SAS plastic free communities

- Plastic Free North Devon

Biocultural heritage

- Businesses had to meet points in the Biosphere Reserve charter
- French Biosphere Eco charters
- Create Biosphere brand??

WISE

- Skippers preferred local scheme as they felt more ownership

IDEA: REINSTATE LUNDY AND BIOSPHERE RESERVE MARINE ACCREDITATION SCHEME (FOR YACHT CLUBS, DIVE CLUBS, TOURIST SKIPPERS ETC, FOR ALL MARINE LIFE SUCH AS MAMMALS, SEABIRDS ETC.)

Results:

- Reduced disturbance
- Increased revenues
- Increased knowledge
- Securing local skippers' livelihoods
- Increased visitor engagement
- Upskilling local people

Steps:

1. Review what we have- existing scheme, talk to skippers, look at effectiveness, look into training (ask the skippers about quality of boat stickers!)
2. Identify steps to revive scheme
3. Explore finance schemes with skippers e.g. add 5p per customer. And ask the skippers how they think the funds would be best used. Potential to create laminated ID cards for sale.
4. Build in marine monitoring projects

Partners:

- Biosphere Reserve
- Lundy
- Skippers
- AONB
- Marine Life (NGO involved in reporting wildlife spottings)
- Local boat clubs
- Dive clubs
- Kayakers/Jetskis/SUPs (These were not part of original scheme but would be good to include)

Ambition:

Skippers take the scheme on and run it themselves (needs to be self-sustaining financially). This should be achievable. Then potentially link to other accreditation schemes e.g. plastic free, seafood accreditation.

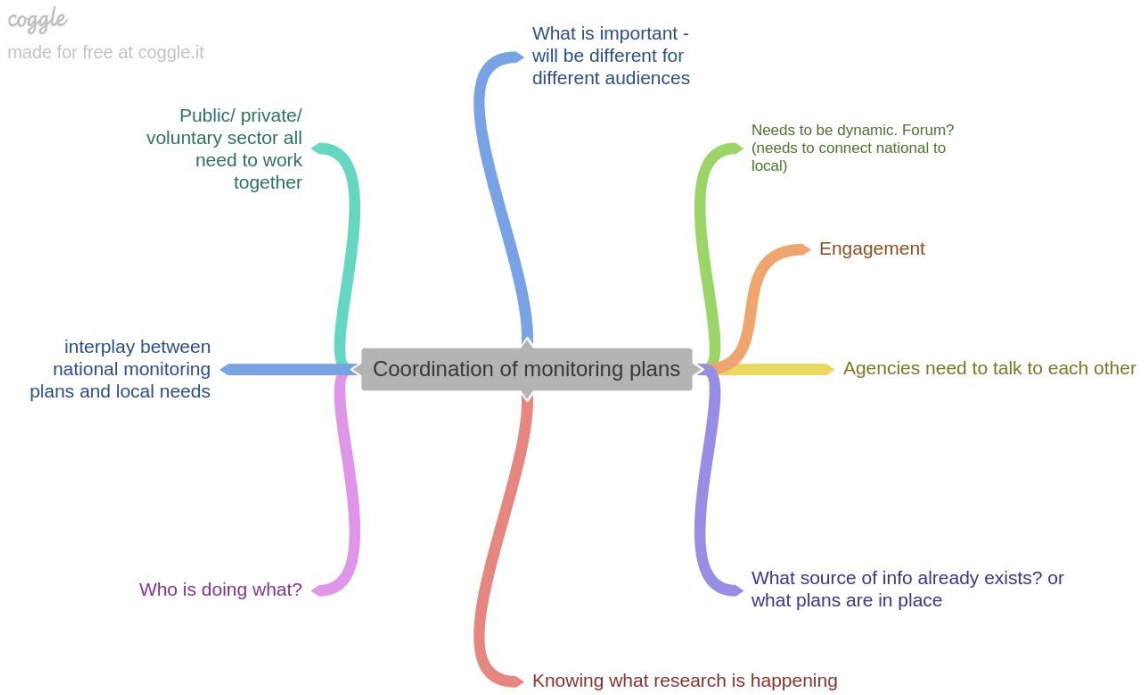
Group Discussion: Monitoring

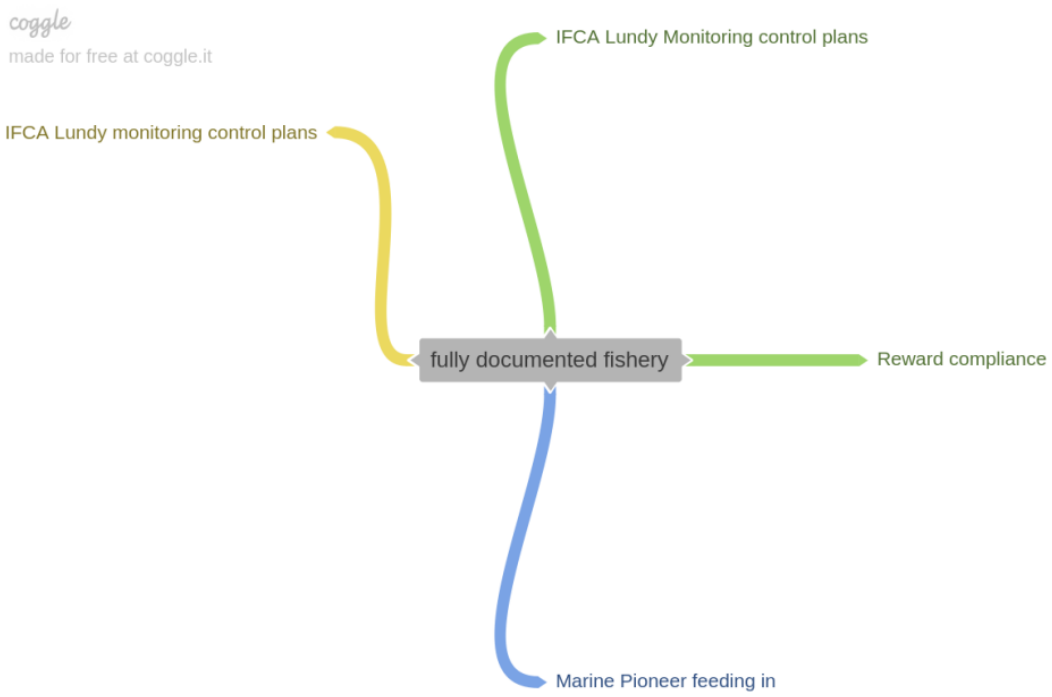
Participants: Penny Nelson, Mike Teare (Way of the Wharves), Libby West (IFCA), Alex Farris, Angelo Massos, Phillip Hackett, Chris Wood (Oysters), Beth Wills

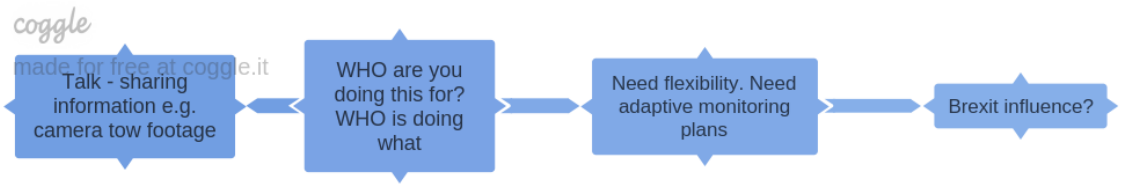
Monitoring and analysis of cup corals around Lundy Island	
Move towards a fully documented fishery e.g. recording discards of bass	7*
Repairing Lundy RIB and providing training to use it	1
Development and implementation of a marine monitoring plan for Lundy which is quick to undertake and report on	
Coordination of monitoring plans – can we monitor one thing for different reasons	1
Better access for IFCA and Natural England staff to survey vessels and equipment to carry out effective monitoring	2
Monitoring plans to include monitoring the condition/quality of features not just presence/absence	1
Baseline assessment of what monitoring is currently happening & being planned	6
Monitoring of social and economic activities in the MPA	4

*Although this option had most ticks – it was decided not to discuss it further as it was felt that the UK SEAS project would have limited influence to implement this and was in fact not the best placed organisation to do this.

Discussion




coggle
made for free at coggle.it
IFCA Lundy Monitoring control plans
IFCA Lundy monitoring control plans
fully documented fishery
Reward compliance
Marine Pioneer feeding in


coggle
made for free at coggle.it
Talk - sharing information e.g. camera tow footage
WHO are you doing this for? WHO is doing what
Need flexibility. Need adaptive monitoring plans
Brexit influence?


coggle
made for free at coggle.it
Expert opinion in
Gap analysis
STEPS
Work out baseline WHO/WHAT
What are the priorities?
(IFCA annual plan)
Are we looking at natural capital ?
SHARE
Stock assessment (lobster & crab)
Citizen science groups need feeding in
Perhaps a coastal partnership or the pioneer WG?
Forum dynamics (in existing group)
Baseline assessment of monitoring needed
Coordination of monitoring plans - additional over statutory
Communication - what? Expectation management
Getting people (Public, private, gov) all working together

Results

Establishing baseline data sources:

Steps:

1. Literature search/ talking to people for monitoring plans (this might already exist -> Sian?)
2. Gap analysis bsed on expert opinion
    a. Pass this onto IFCA, NE, working group
    b. Potentially identifies who to undertake monitoring
3. Prioritisation
    a. What is our priority as a group? This needs to be discussed and decided as a group
4. Present results at a forum
    a. Which forum - Severn Estuary Partnership/ ASERA?

Partners:

- Landowners
- Marine pioneer – IFCA, PML, MMO etc
- Voluntary groups – coastwise, RSPB, Seasearch, Wildlife trust
- Harbour masters
- Natural history society
- TCE
- Local authorities – N. Devon district council, Torridge council, West Somerset
- Exmoore National Park
- CEFAS
- EA
- Pressure groups – angling assoicaitons, fishermen
- Windfarms

Ambition:

Coordinated monitoring plan for all MPAs in N. Devon which is communicated to the widest possible audience

Further ambition: Undertaking monitoring gaps and making sure the data goes to the right place

Group Discussion: Pressures and Threats

Suggested projects	Votes
Solutions to seal entanglements in fishing gear	1
Developing management measure/s for bait digging in the Taw Torridge estuary	0
No take zone around all of Lundy	3
Finding technical solutions to harbour porpoise bycatch in the Bristol Channel cSAC	0
Update code of conduct in Taw Torridge Estuary to include crab tiling and bait digging	1
Management and reestablishment of saltmarsh	3
Addressing the issue of abandoned house boats and vessels in the Taw Torridge Estuary	0
Set up a spiny lobster hatchery	2
Water quality improvement projects with farmers	3
Provision of eco/flexi moorings for boats	0
Planting or managed recovery of seagrass beds	0
Recycling fishing nets e.g. to create 3D printer materials	0
Initiatives to improve spawning and nursery habitat in the Taw Torridge Estuary	4
Provision of recycling facilities for the Oldenburg and fishermen at Bideford and Ilfracombe	4 (scored jointly with *)
Explore opportunities to use technology on fishing boats to support management	0
Schemes to address pollution from different sources e.g. discarded fishing gear	4 (scored jointly with *)

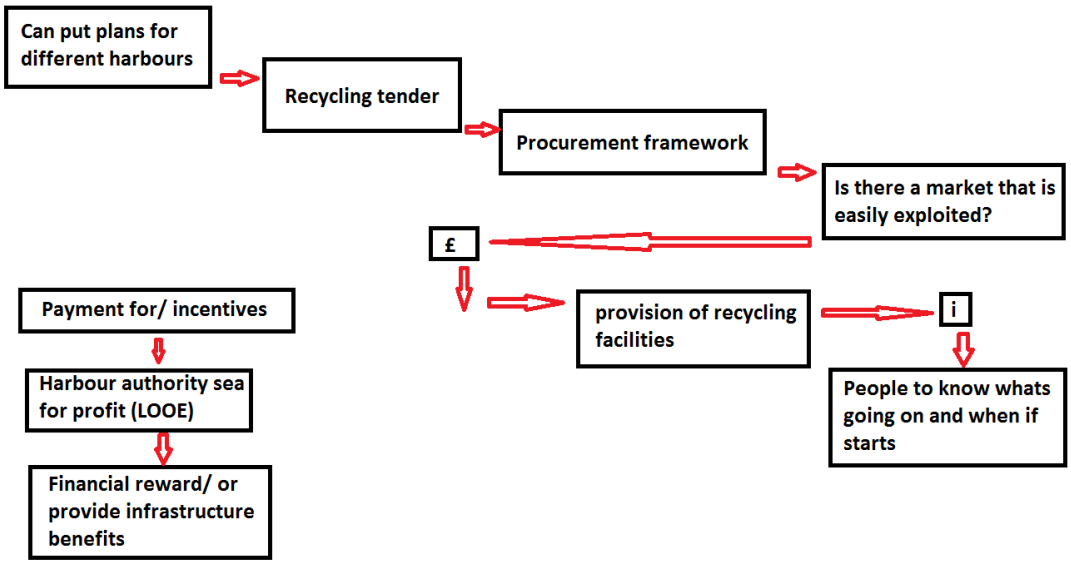
Ideas added on the day:

Further no take zones (to reach 20-30% coverage)
Investment in fisheries infrastructure (e.g. storage, processing) so can maximise local valve from landed fish
Investment to enhance fish stocks, e.g. Clovelly herring.
Investment to improve fisheries management (e.g. fish @ MSY), enhance stock (to cover opportunity cost while stocks recover etc)

Discussion about Recycling facilities for Oldenburg and Fishermen at Bideford and Ilfracombe:

- Communicate to people on the ground – fishers need to be consulted
- Who is the scheme led by?
- Inform local fishermen and tell them where they can find further info
- Take away and local businesses packaging programmes – are we adding to issues?
- Engage with existing waste and recycling contractors
- Are collection facilities in the right place? Review, Study, Test, Optimise
- Review and gather experiences of previous activites
- Challenge: Council spends a lot on recycling from houses already
- Investing in infrastructure
- What to do with litter, bring it back?
- Build awareness schemes – how will it work – incentives?
- Many species are likely to benefit (especially BAP but others too)
- 2 way process to consult and discuss
- Opportunities to respond to management plans: online, in person, opportunities to respond Bodmin, Exeter
- Can find out information from somewhere – Bideford
- It will benefit other recreation and commercial activities
- Expand fishing for litter

Brainstorm:



Action plan:
Results:

- Less plastic waste / recovery of existing waste
- Incentivise but also successfully engage with fishing community
- Less bycatch/ ghost fishing
- Benefit to public perception of fishermen
- 5Tonnes etc of plastic/waste per year

Steps:

- Engage with existing initiatives e.g. fishing for litter
- Data gathering to optimise – where – when – how best- who – what
- Secure investment
- Tendering process/ engage with contractors
- Models – council tendering and consider other method
- Feasibility
- Lessons learnt from Ireland, Newlyn, Looe, Mevagissey

Partners:

- Fishermen
- 2 Local authorities
- Harbour authorities
- Recreational activities
- Oldenburg and other quays
- Viridor / contractors
- Present recycling contractors
- Biosphere and Sky
- Seafish (responsible fishing officer)
- Ellen McArthur Foundation?
- Defra

Ambition:

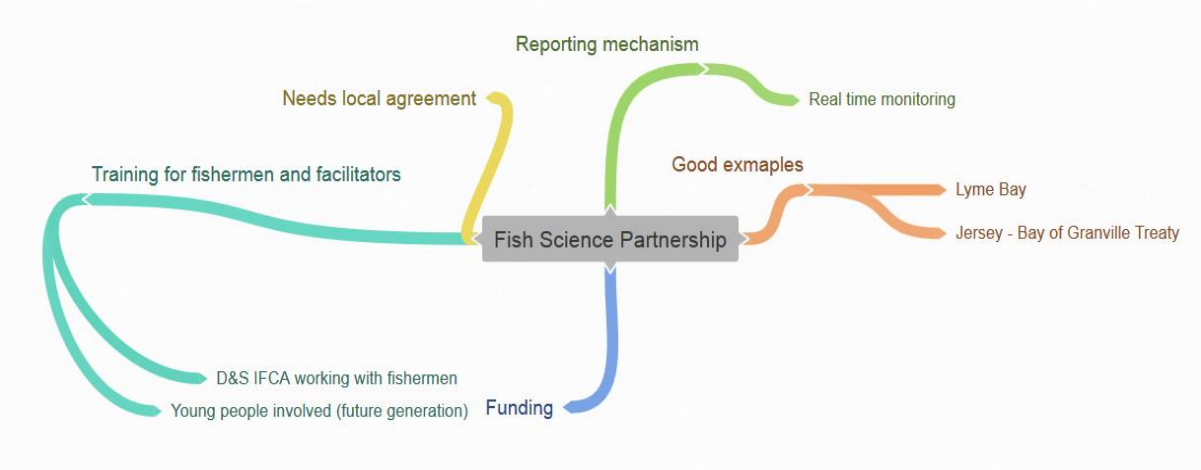
- Compelling – to public and funders – promote in community and extend
- Self-sustainable and expansion
- Beyond pilot at Oldenburg
- Promotion amongst public

Group Discussion: Stakeholder Engagement

Facilitator: Chrissie Ingle Scribe: Adam Rees

Idea	Rating
Create fisher-scientist partnerships to monitor the effectiveness of closures of fish stocks and habitats	+ 5
Actively engage with local communities to ensure their local expertise and knowledge is embedded within management	+ 4
Peer to peer learning about successful management interventions between MPA managers	+ 2
Capacity building to build skills in the community to manage MPAs – boat handling, GIS, communications	+ 3 -1
Stakeholder engagement events to discuss progress of MPAs in North Devon and actions around the implementation cycle (designation, management, monitoring), including input from stakeholders on the best way to manage.	+1
Ground truthing habitat types with stakeholders to build common ground and shared interest in the area	+1 -1
Employ a network of local stewards promoting a sense of collective ownership to act as custodians of natural assets	+1 -1
Create materials to improve stakeholders understanding of species, threats etc. so that they can engage in conversations about protection	+1 -2
Taw Torridge Estuary Who's who – knowledge database for the estuary	None
Improved opportunities for citizen science	None
Do you have a better idea? Add your own….	None added

Discussion: Create fisher-scientist partnerships to monitor the effectiveness of closures of fish stocks and habitats



Discussion

- 1st step – get agreement to talk to each other
- Gather existing knowledge
- No point bringing management in if you don't monitor
- Specific goals need to be defined
- What are the economic benefits to be gained?

What is the problem?

We need a way to communicate and involve fishermen at every stage. Address the different perceptions between fishermen and scientists.

Results:

- Trust between partners
- Specific objectives achieved
- Well monitored fishery
- Fishermen involved at every stage
- Excellent, efficient and regular communication
- Marketable sustainable product benefits to fishermen - new markets identified

Steps:

- Set up a working group in North Devon
- Training facilitators and fishermen and educate buyers
- Include regulators
- Facilities and funding and agreed targets/outcomes
- End result identified – delivery
- Learning and feedback

Who?

- Clovelly Fishermen
- Ilfracombe
- IFCA
- NCFA
- Bideford
- Merchants and wholesalers
- Industry organisations – SEAFISH, IFCA, MMO
- Retired fishermen – historic information is valuable
- Plymouth University and other scientists
- Social and environmental scientists to aid collaboration
- Economists
- Buyers (restaurants, local retail)

Challenges

?

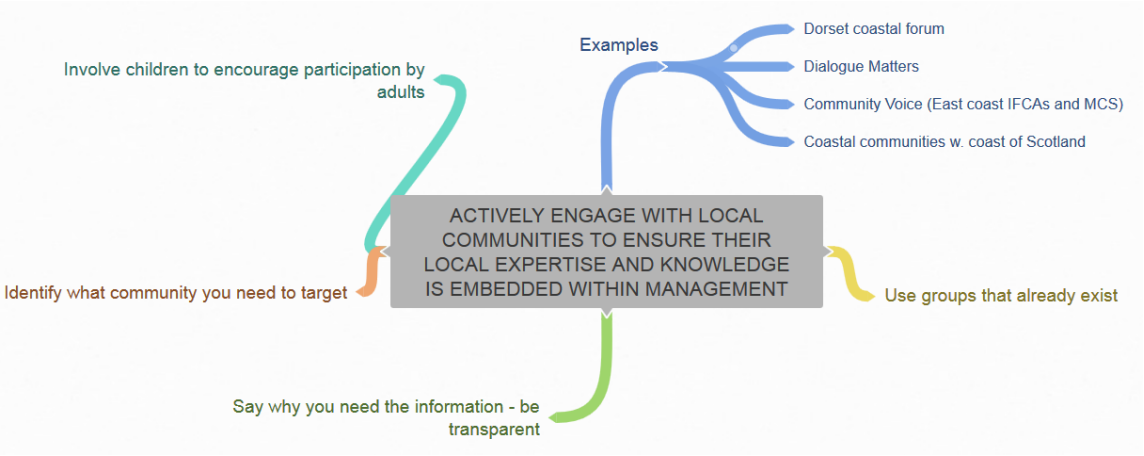
Ambition:

Happy fishermen!

Everyone is benefitting from sustainable fish stocks and an improved environment.

Discussion: Actively engage with local communities to ensure their local expertise and knowledge is embedded within management

Brainstorm:



Discussion:

- Definition of ‘local’ and ‘community’
- Compliance should increase
- Could be difficulties getting this information – local communities can be closed
- Why?
- This research can be cheap
- Lots of people moving in – can be a barrier
- Key to this is a great facilitator
- Fishermen are often key – they don’t talk to people they don’t like!
- Can be an important step to not duplicating research

Challenges:

- Reluctance to share ‘family secrets’
- Increased pressure on stakeholders

Results:
To achieve the ambition using knowledge that is already out there. No duplication. More people engaged in marine environmental management.
Steps:

- Identify community groups that can be used and those that haven’t worked and why?
- Develop a forum
- Identify other initiatives including research to find what worked
- Define goals
- Excellent communication resource
- Need facilitation/coordination

Partners:
None added
Ambition:
Management that ensures local expertise is incorporated and people feel listened to.

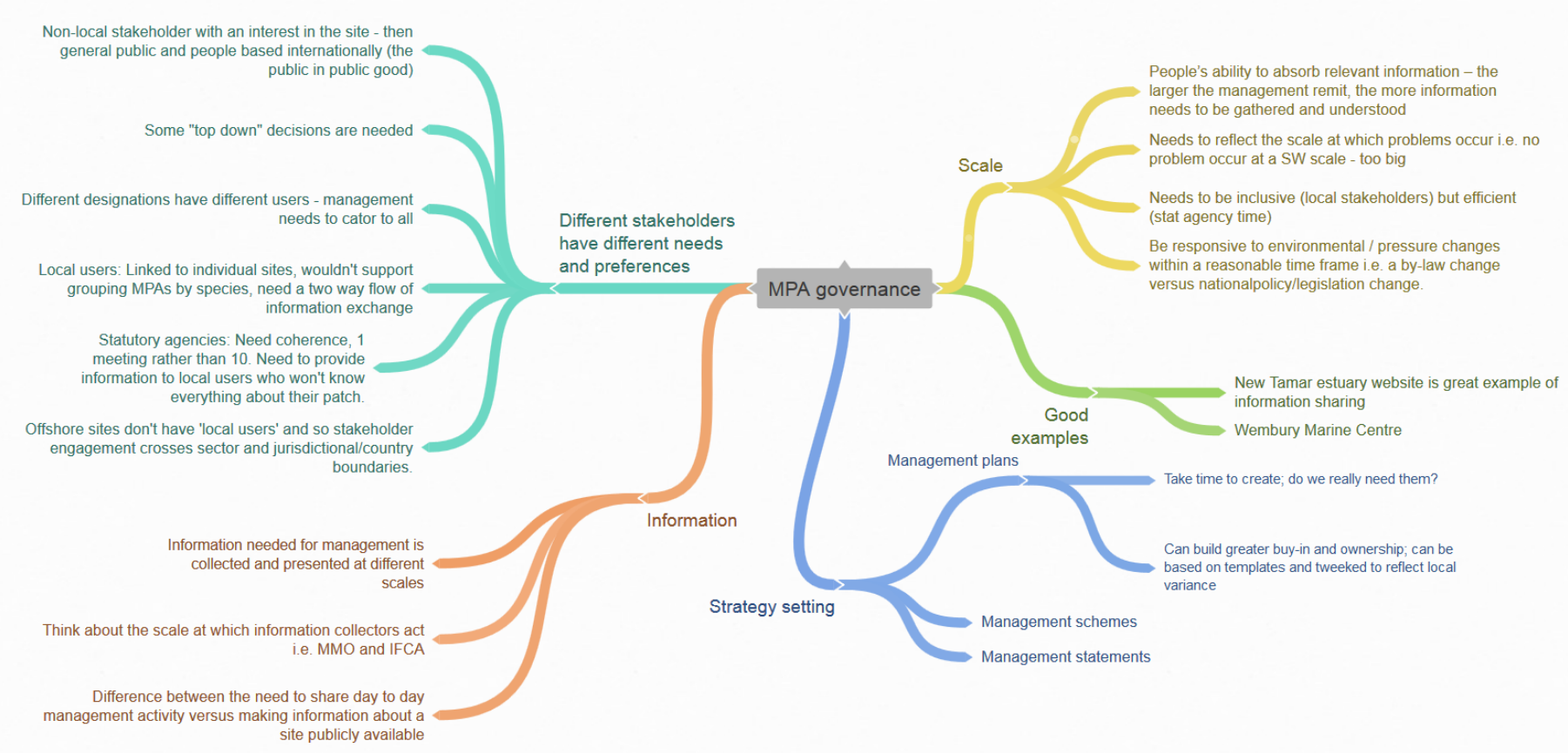
Group Discussion: Improving MPA Governance:

Facilitator: Sarah Young, Scribe: Katrina Davis

The presented 'ideas' list wasn't formally scored during the exercise and we jumped straight into a discussion, so the scores indicated below don't reflect the perceptions of all participants present.

Idea	Rating	Comment
• Create an over-arching local marine management body with paid staff and a stakeholder advisory forum Amended to: " Create an overarching **regional** marine management body with **statutory** staff and stakeholder advisory forum **(s) for each relevant MPA** (i.e. not offshore cetacean MPAs with few users)"	+ 2	
• Create good management plans for MPAs that are easily accessible to all (through a co-production approach?)	+ 2	
• Better coordination of marine management, as well as better access to decisions and higher public awareness	+ 2	
• Investigate better ways to coordinate the management of sites and issues	+1	This assumes there is a well-structured management plan and monitoring that informs adaptive management
• Community led inshore fisheries policy	+1	
• One authority per site	+1 -1	Have to have multiple representations but with elected or chosen leaders (who should be funded)
• Coordination of sites – looking across a network, not managing site by site	+1 -2	"No. A hierarchical approach is required (see Lundy)." "Bearing in mind what is going on obscene! Can't management for a non-existent 'network'"
• Cross channel England/Wales marine management group/committee with public engagement/outreach agenda	None	
• Establish a better definition of the roles and responsibilities of decision makers and supporting organisations for the North Devon marine environment	None	
• Taw Torridge Estuary officer to manage activities	None	
• Establish a single entity for decision making	None	
• Do you have a better idea? Add your own…. **Create "management statements" for each MPA (rather than full plans)**	None added	

How to better structure MPA governance



Discussion
The discussion swung around between issues of scale, what management plans might look like and the role of users groups. There are also some general discussion points bulleted at the bottom.

Scale
Needs to reflect:

- **Inclusivity** (having a voice) versus **efficiency** (stat agency time)
- Scale of problems occurring and ability of management team to make decisions (south west scale too large).
- **Issues that occur** at a UK scale could/should be managed centrally. Issues that occur at a local or regional scale should/could be managed locally.
- **Ability to be responsive** – whelks being overfished in the channel needs a quick local reaction rather than a national position and regulation.
- **People's ability to absorb relevant information** – the larger the management remit, the more information needs to be gathered and understood.
- **Cost versus money available**. Coordinating, leading and building groups takes time and money, so the more groups the higher the cost to maintain.

Management plans

- Site-based management plans lead to greater buy-in and ownership. They connect people and sectors and show better detail.
- Are management plans useful / necessary? Statutory agencies have a role regardless of whether there is a plan in place.
- Plans take time to create – but this can be speeded up if they are based on templates/blue prints.
- Individual management plans reflect the fact that one size doesn't fit all.
- All sites need management statements but not all sites need full management plans. Jon Davis talked about the review conducted to apply a triage approach, where more complex sites have plans, and simpler sites have statements. What is the difference between a "plan" and a "statement"? Objectives, users and who regulates in non-jargon language.
- Management statements could be made more easily publicly available than dense management plans. Could standardise and use on a website(s) at scale
- The Objectives of an MPA are generally to restrict pressures on the system. Managers of pressures need to negotiate with 'makers' of pressure.
- Where is the demand for plans coming from? Do we need to evidence that plans are necessary and help, or that not having a plan leads to decline or that there is 'local demand' for information, that would be provided by a plan? Plans help gather people.
- Participants seemed happy to more away from a strictly features based management approach.

User forums

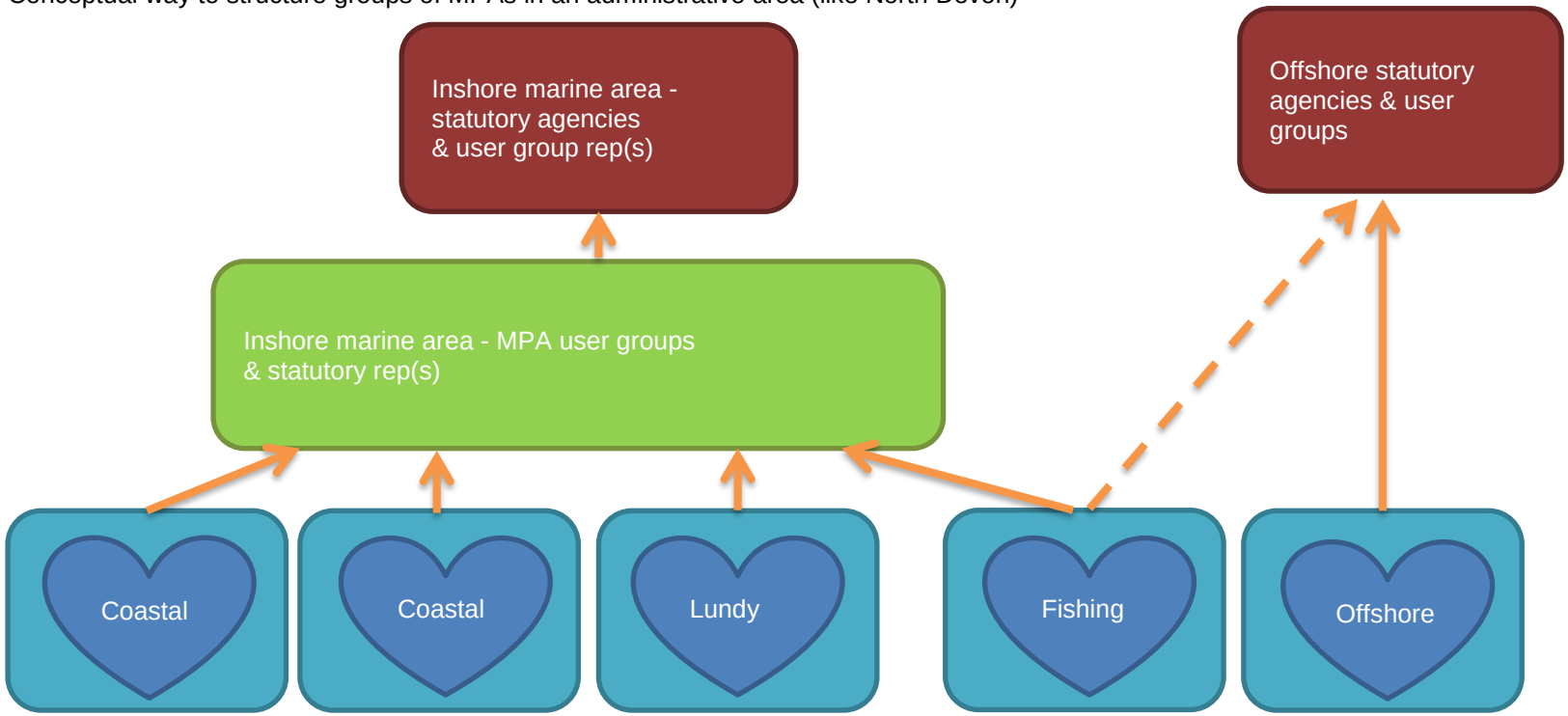
- Local users are important – User engagement is essential – local users need to be able to express views – **need geographic "ownership**".
- Local users don't know everything about their patch. Information provision is crucial
- Information forums which include status updates (how are we doing?) and offer ways to be active/contribute.
- User Group (Advisory group) should be a group that is kept up to date with interesting news and presentations as well as discussing issues and ideas.
- Need to generate interest first.
- If there are decisions or compromises to be made across more than one interest group or sector then local forums are a good place to understand different needs and perspectives.
- These groups need to have a public aspect, so anyone with an interest can join (not exclusive).
- Groups tend to be more productive around specific 'asks' which tend to come sporadically.

- A user group needs a chair and a secretary. The chair shouldn't be from a statutory agency.

General discussion points

- MPA involve multiple, overlapping designations (SSI, no take etc.) – different designations have different users and management needs to cater to all.
- Requires a tiered approach
- Lundy as a successful model but it's quite a unique case. Severn Estuary also has unique needs. Every site has its peculiarities.
- Newer MCZs initial increase in users group input. Older MCZ's less user group input.
- Some "top down" decisions are needed e.g. mobile gear on reefs. No one wants to volunteer restrictions on other people's fisheries patches.
- Offshore sites don't have 'local users' and so stakeholder engagement crosses sector and jurisdictional/country boundaries. They tend to fit in with stat agency forms of engagement.
- Information needed for management is collected and presented at different scales making it necessary to aggregate or disaggregate depending on management scale.
- MPA managers are often not from statutory agencies and the time and energy needed to run and coordinate a user group is high. There is a specific leadership and facilitation skillset involved that is undervalued. Could this be done by consultants (not really) or part-time depending on the site? It's this kind of social capital that is necessary to protect natural capital.
- Local decisions and information needs to be respected at management levels.
- Different funding models exist. Evidencing impact of local engagement would help attract funding.
- North Devon has the Biosphere Reserve which could act as a central 'agency' but this couldn't be scaled-up across the UK.
- With the model the regulator is acting as the mediator (which isn't necessarily their skill set) – would/could this be contracted out (perhaps to a central reserve of conflict mediators?)
- Ways to group MPAs: Local versus offshore; Feature of interest i.e. mearl; Pressure of interest e.g. fishing; Dominant activities; Geographic location; Complexity of the site; User groups

Conceptual way to structure groups of MPAs in an administrative area (like North Devon)



Blue hearts = MPA
Light blue boxes = the local stakeholders and users interested in that particular site. Some of these light blue boxes representing a collection of people might be more structured than others e.g. Lundy advisory group. Although it could be argued that each MPA wouldn't necessary need a formal group that meets regularly and could be convened to tackle ad hoc, site relevant issues. E.g. Taw Torridge Estuary or Lundy Advisory Group.
Orange arrows = a representative or representatives that connect the stakeholder groups and the statutory agency (or legally responsible managers) groups. Both ways, as in a stakeholder rep who reports to the stat agency group and a statutory agency rep who reports to the Stakeholder group.
Bright green box = a stakeholder forum that covers a wider marine area incorporating several MPAs and perhaps wider seas, who have a funded secretariat and obligation to collect and communicate relevant information/training/hold events/promote/discuss etc. inshore marine area. Could be a variation on regional Devon Maritime Forum or beefed up LCP.

Red boxes = predominantly statutory authority decision making space which guides strategic direction, monitors against progress, pulls in funding and coordinates effort to progress MPA plans or Management Statements. E.g. Lundy Management Group, IFCA committee.