

Eastbourne - Low Impact workshop – #1 (3rd Feb 2020)

Commercial fishermen, charter skippers and anglers from the Essex / Thames through to Dorset/ Weymouth attended the meeting in Eastbourne.

Fishermen and anglers from Weymouth, Chichester, Selsey, Shoreham, Newhaven, Eastbourne, Hastings, Bexhill and Southend were represented.

Stakeholder / Attendees – 26.

Breakdown

- Under10s - 10
- Over10s – 8
- Wholesaler – 1
- Anglers – 5
- Charter – 1
- Other – 1

Comments made by attendees when introducing themselves

- “Would like the lads to come together.”
- “Want to have a voice on management.”
- “Keen for a better definition of ‘low impact fishing’”
- “Want to see British produce promoted in the South and across our country, with less exports.”
- “Want to see common sense with positive PR on local sustainability.”
- “A stronger voice for the under 10s.”
- “Anglers want to support under 10s over other sectors.”
- “Let’s co-manage fishing! Defra, all fishing sectors, MMO...”
- “Want to control quota ourselves a bit more.”

After brief introductions, attendees were asked to talk about what they hoped to get out of the workshop:

- A useable definition of low impact fishing
- Something less arbitrary than the over or under 10m split
- An opportunity to start working together
- A way to reward good behaviour
- An opportunity for the future
- Want to understand how low impact definition will affect under 10s
- How is this going to shape the transition to low impact fishing
- Needs to change quota management
- Improve understanding

Defra then introduced their rationale for the project – to be able to manage/ regulate based on environmental impact; to better manage quota, and to move from top-down policy making towards co-management and collaborative working with the fishing industry. The importance of being mindful of unintended consequences and maintaining flexibility were stressed.

Ground rules were set for the discussions – to be respectful, listen and that everyone’s opinion is equally valid.

NOTES FROM TABLES: 1st session IMPACT TYPES

Discuss in table groups:

- *What are the environmental impacts of fishing / angling independent of fishing type?*
- *How do environmental impacts vary across different scales (e.g. local inshore waters, regional, global)?*

Group 1 - CW

Impacts identified:

- Impact on stock / mortality of target species
- Impact on stock of non target species
- Unintended mortality
- Ghost fishing / gear loss
- Impacts on endangered species
- Pollution (fuel / emissions, plastic, bilge water, ..)
- Food chain disruption / impact of discards
- Damage to ecosystem
- Damage to breeding grounds
- Pulse trawling ban a success (so will reduce further ecosystem damage);
- Using actual (local) knowledge important;
- Smaller boats limited by weather;
- Frequency of trips, quantity of activity;
- Damage to seabed;
- Stock removal – species targeting, discarding;
- Bycatch;

Scale of impact – global or local, or both?

- Climate change;
- Other marine developments – marine aggregate dredging, offshore windfarms

Other points:

- Fishing is physics: effort x method x time
- Priorities listed includes stock and pollution
- Cumulative impacts of fishing
- Impact of super trawlers on stock
- Weather = effort limit
- Impacts of climate change
- Impacts of nomadic fleet
- Problems resulting from quota management

Group 2 - EHO

General comments on exercise

- It's interesting that it is just being put down to environmental, rather than including other fishery dimensions.

Impact listing – post-its

Lost gear (ghost gear – including from gear parking)

*Litter and plastic reduction when removed from sea (e.g. fishing for litter)
*Power generation (retrieved nets burned in power stations)
Landfill (as result of landing obligation)
Seabed contact - degradation
*Seabed contact – regenerating (e.g. when trawling improves conditions for nephrops, etc.)
CO2 emissions (from transport of catch)
CO2 + other pollutant emissions (from fuel usage)
CO2 emissions (from enforcement activities; vessels, etc.)
CO2 emissions (from increased land transit due to landings obligation)
CO2 emissions and other impacts associated with vessel construction, new engines, etc.
National policy in territorial waters (i.e. unnecessary damage by foreign vessels)
Removal of natural resource (i.e. fish)
^Damage to food web (altering ecosystems) as result of single species management (e.g. removal of excessive pelagic species that bass rely on as food)
Habitat damage (e.g. from interactions with parked gear)
^Habitat damage - damage to virgin ground (from shifted effort due to regulation)
Loss of food for species that rely on discards for their diet, like gulls (after implementation of landings obligation).
Overfishing (as people buy pots to reach pot limits)

*Positive impacts listed in green, ^Most severe impacts listed in red

Comments around listing and prioritisation

- At the highest level, impact is removal of species.
- All fishing has an impact, not just one sector/type/etc.
- Loss of gear leads to ghost gear and litter.
- Fuel usage results in air pollution.
- The altering of ecosystems is a major impact, when food web is impacted.
- When you fish for scallops it can act like ploughing the ground, which is a good impact. It makes the ground more productive. You get more scallops.
- You need to consider transportation of fish. Can be global. Air pollution also associated with transport of discards.
- Impact of discards is not always bad. It's 100% dead anyway, so why send to landfill when it can be food for some marine species once discarded. It's not just negative.
- Anytime man-made materials are introduced there is an environmental impact associated with their manufacture.
- Removing pelagic food source of target species has negative impact on target species. Bass feed on pelagics. Bass are regulated, but the pelagics they eat aren't regulated with this in mind. Lack of an ecosystem approach has this impact. A result of single species management. Lack of overview.
- Pot limits are designed to reduce fishing effort, but have often become a target. People have bought more pots to reach the limit, when otherwise they would have made do with less pots.
- Gear parking is an increasing issue. There's no space for the gear on land and it's getting parked at sea where it's getting lost and scouring seabed. Crab pots are the main issue. MCZs have become gear parks, as have wind farms.
- Pot tags are littering the sea.
- There can be a difficult trade-off between impact on stocks and high fuel consumption.
- Some policies move fishing effort to areas that haven't been fished much before, so can lead to more virgin ground being impacted. If an area has been fished for over 50

years, it's likely not too much impact is being had. Hard to see some of these grounds changing to a different state if fishing ceased on them.

- Some gears are more damaging for some demersal species (e.g. for pink sea fans).
- You can have a good fishing area, but use the wrong gear type in it in terms of low impact. A definition of low impact could be built around right gear in right area. For instance, hook and line might still be okay in some virgin areas – would cause no damage to ground.
- The landing obligation is causing a new impact in the form of landfill. The discard also has to be transported.
- There are a number of positive impacts associated with plastic removal. Some plastic is burned for energy, some is made into other products.
- If boats all used geo-fencing, this would make things lower impact. They'd see not to go into protected areas by mistake.
- Quota should be used as efficiently as possible.
- IFCA operations could be improved to support low impact fishing. Not currently great for supporting such moves. The regional differences makes a unified approach and reaching long-term goals for low impact hard.

Group 3 - JU

5 x commercial fishermen – mostly mixed gear including static and towed gear

What are the environmental impacts of fishing and how do they vary across different scales?

- Damage to sea bed – can be caused by all gear types (local/regional scale but likely a global issue)
 - However, need to remember that some disturbance to the sea bed can be beneficial in terms of managing the habitat and sustaining stocks. Thus, not all sea bed disturbance is damaging – they compared it to farming – a certain amount of management/disturbance is needed to maintain a grassland for instance.
- Pollution (at all scales)
 - General rubbish that is thrown overboard
 - Diesel pollution & other pollutants from vessels
 - Ghost gear
 - Discharge from bilges
 - Plastic
- By catch
 - Other fish species
 - Other marine wildlife
- Size of vessels
 - Generally smaller boats will have a smaller environmental footprint

Most fishers present fish either out of Eastbourne or Newhaven. These are both mixed fisheries which use different gear and activity. Eastbourne has more static gear activity than Newhaven. The fleet mostly sells to Belgium.

What are the environmental impacts of fishing and how do they vary across different scales?

- **Pollution**- fuel, plastic, litter individual fishing vessels, ghost gear, bilge discharge.
- **Seabed damage**- dredging and silt pumping. Silt dumping is the most damaging but isn't a fishing related activity.
- **Spawning**. For certain vessels and methods they can't be selective or avoid bycatch

- **Bycatch.**
- **Displacement and pressure on fisheries.** They want a job for life and are not aiming to empty the sea. They see the need for protection but it has to be done logically and not cause displacement.

Other discussion points:

- Displacement of fishing activity due to close grounds, MCZs (e.g with ban on towed gear), windfarms, silt pumping from harbours etc. put pressures on other grounds and can cause more intensive fishing in those areas. It can also mean changes in gear, e.g. potting to trawling, again putting increased pressure on those fisheries.
- Farmed fishing holds the prices down so it can be difficult for wild caught fish to compete.
- Fishers saw a market benefit to themselves if they could market their fish as low impact.
- Need to improve the speed at which data on fish stocks is incorporated into management decisions – fishers would be keen to engage in this and co-design approaches to do this.
- Issue of how to monitor landing size – it was mentioned that there is often shrinkage between catching and landing.
- Need to improve the public perception of fishing and create a demand for fresh, local fish.

Other points raised

Felt that they couldn't discuss a lot of the contentious topics in that workshop because of the diversity of fishers in the room. They don't want to blame each other and identify specific types of gear as being the cause of problems. These are multi-purpose fisheries.

Wild fishing is more sustainable as the fish that are used to feed farmed fish come out the sea.

Agreement that smaller boats have a smaller carbon footprint. Additionally, the bigger boat, the more expenses there are to pay and more expensive problems to fix. However, super U10s have increased power and fishing capacity but also increased pollution.

Complaints that they are encouraged to diversify and invest in new gear then are restricted from it. They want consistency from management and longer term stability.

Outdated data used for TAC and informing decisions. Leads to a paradox where they can't target a species when it's in abundance or if a stock is in danger the TAC gets lowered when it's already too late. Agreement that fishers should have a role in providing data.

Management and targeting of area was compared to farming. The ground adjusts to the activity if it is at a constant level and needs it for maintaining its use (like grazing).

Perception that IFCA proposals are a done deal before meetings and consultation. E.g. Shoreham closure. Those on the board don't understand different gear types and the ability to be selective. Instead they resort to a blanket ban.

Group 4 - HO [potting focus]

All netters and potters with the exception of one processor. One key point raised was that they are all "*fear reprisals [from regulators etc] due to misconceptions based on snapshots of data*".

Key impacts identified.

Top three:

1. Poor practice leading to low survival rates in bycatch;
2. Fuels use (pollution); and
3. Lost or abandoned fishing gear.

Others impacts:

- Plastic / metal pollution;
- Intended catch;
- Perception of cruelty to animals; and
- Depletion of baitfish;

Misc notes to be taken into account:

- Increase in seals;
- Aggregate dredging making it impossible to fish some areas (displacement); and
- Poor communication/demand resulting in product being transported large distances.

Impacts identified: (Underline = identified as priority)

- Fuel usage
- Lost/abandoned gear
- Littering/waste dropped in sea
- Seabed/habitat interference
- Lack of use of local fish results in more fuel being used for transportation
- Overfishing
- Bycatch (specifically how it is returned)
- Sustainability of artificial bait
- Removing fish from the sea
- Animal cruelty (perception of)

Other points:

- Participants shared **concerns about bringing attention to the environmental impacts of fishing** because they:
 - Don't want to cause division between fishers from different sectors
 - Don't want authorities (government/IFCAs) to 'run away with it' i.e. if attention is brought to environmental impacts, then industry will be blamed and policy will be put in place to restrict fishers.
- Belief that **some poor treatment of fish is unavoidable** (e.g. container size), yet fishers are still accused of animal cruelty by environmentalists, especially online, but also with activists coming down to their boats in attempt to stop them from fishing. Fish will always be killed.
- Participants expressed a **desire to reduce their fuel usage**, however feel that **realistically they are limited in their ability to do this by high fuel prices and a lack of current technology**. Discussion centred on electric boats, which were seen as currently unavailable, and a technology for the future.
- There was a **desire for the fishery to be more flexible**, with frustrations at perceived poor management of IFCAs.
- They agreed that generally accepted principles of low-impact fishing (e.g. less fuel usage, fewer discards, less bycatch etc.) actually often align with the ideas that fishers have about running an efficient business, however external barriers limit them in doing this.

- Bycatch was listed as an impact, yet was blamed on restaurants not wanting certain species.
- It was acknowledged that the current u10/o10 system is arbitrary and ineffective.
- Participants argued that fishers need to be more aware of where other fishers are working. For example, if a fisher is known to frequent a certain area and has fished most of the stock, then other fishers need to acknowledge that and avoid that area so the stock is not entirely depleted/overfished.
- Belief that enforcement on high impact behaviour is not strict enough.
- Other environmental impacts were listed, such as seals and climate change causing an increase in water temperature.

Group 5 - RA

Impacts identified:

- Fuel
- Sea bed impacts
- Bait fish removals
- Bycatch (cetaceans, birds)
- Non selective fishing
- Plastic disposal
- Lost fishing gear
- Excessive soak time and tow length

Other points:

- Some issues are common to other sectors, e.g. sea bed impacts
- Displacement of fishing by other sectors can concentrate fishing
- Dealing with unwanted/unintended catches on land rather than discarding may have negative impacts on marine ecosystem

Group 6 TMc [Angling]

Impacts identified:

- Impact on stock / mortality of target species
- Impact on stock of non target species
- Unintended mortality as a result of catch and release
- Impact on localised stocks (wrecks)
- Impact on spawning fish
- Breeding season disturbance
- Tackle / gear loss (pollution)
- Ecosystem impacts (eg high concentration of local activity) eg bait collection
- Changes to habitat are not well understood – but can be damaging eg anchoring
- Impacts on endangered species
- Pollution
 - Water (fuel / emissions, plastic / single use for bait containers,..)
 - Noise pollution

Other points:

- Technical creep and efficiency of angling has grown a lot

NOTES FROM TABLES: 2nd session IMPACT REDUCTION

Discuss in table groups:

- *What impacts could be reduced?*
- *What criteria should be used to define low impact fishing / angling (referring to identified impacts from Discussion 1)?*

Group 1 - CW

- Stock impacts could be reduced through changes to quota management; more efficient; annual (or quarterly) not monthly to account for seasonality
- Managing quota at higher level, non-sectoral and ensuring common rules
- Lost gear – gear parking and gear conflict need to be tackled as these are root causes of ghost gear. Should require reporting. Marking gear should be requirement.
- Pollution – aim to reduce fuel use; focus on clean tech; diesel-electric hybrid engines are used in France; cost implications – how can this be incentivised. Requires nudges to shift behaviour.
- Infrastructure – fishing for litter would be more effective if infrastructure was in place and not a burden on individuals; should be consistent / same for each port; gear is currently recycled in Denmark (no facility in UK); used oil should be collected (needs port authority, fishermen and local authority to work together- a shared group exists in Weymouth that others can learn from).
- Technical measures / gear design – has evolved a lot – covers a wide range: lobster escape hatches, whelk holes, mesh sizes, gear closure (spatial / temporal restrictions); the impacts of the gear vary by habitat type – technology now makes it possible to avoid sensitive features
- Regulations can drive bycatches – wastage at small scale (i.e. 5-6m vessels which should keep everything they catch as only a few Kgs per trip total).
- Restricting nomadic fishing / displacement
- Landing obligation: from the sea to landfill. Moves problem out of food chain. Doesn't feed anything in landfill.
- Education: limits of certain gears in certain weather / darkness; soak times; codes of conduct (eg netting); ban of recreational netting.

Group 2 – EHO/JB

Impacts that could be reduced:

- Waste (litter, single-use plastics)
- Pollution
- Abandoned gear
- Bycatch (using selective gears to reduce bycatch)
- Damage to habitat/nursery grounds (not using destructive gears e.g. dredges)

Impacts that are harder to reduce:

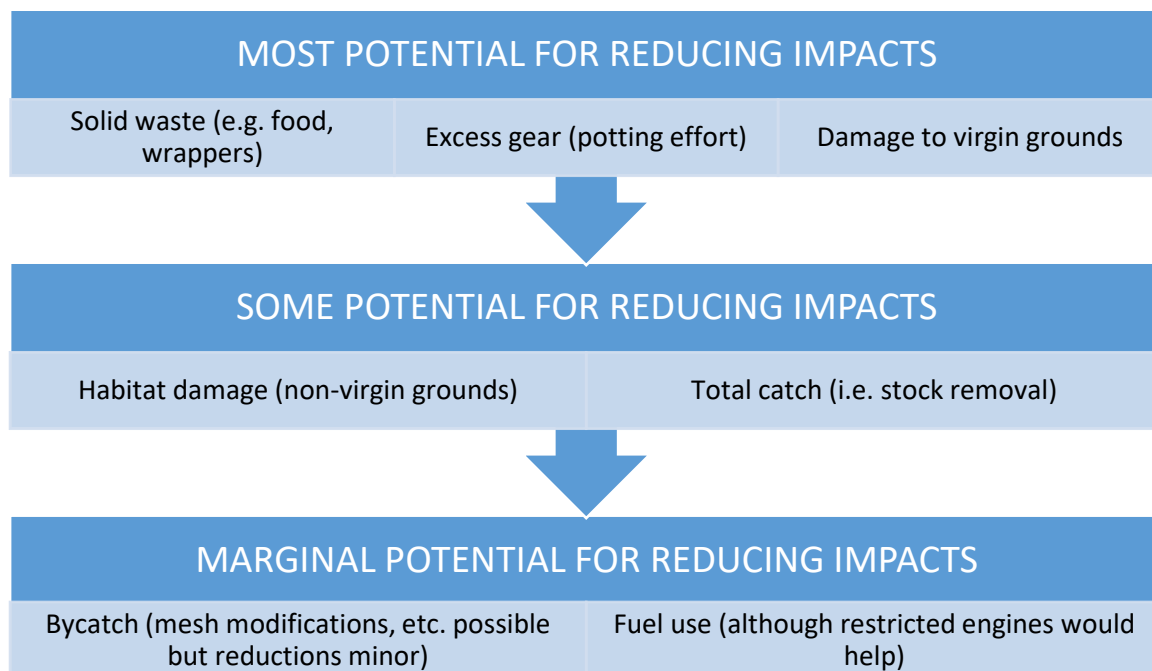
- Fuel usage (engine can be used in an intelligent way, but barriers in some engines)
- Behaviour change is hard to achieve due to perceived 'greedy nature' of fishers – most fishers will try to catch as much fish as possible regardless of deterrents

Criteria for defining/rewarding low-impact fishers:

- Suggested 'points system' where fishers could be scored and provided with points based on whether they have met certain low-impact criteria. These include:
 - Most popular idea was horsepower of boat (lower = more points)
 - Lifespan of engine (not applicable to gear, as other boats can destroy gear etc.)
 - Weight/capacity of boat
 - Proof that waste/litter and old gear is being recycled
- Concerns were raised around the following being used as criteria:
 - Days at sea (concern = restriction of fishing access)
 - Fishing within local grounds (c = how to define 'local', restricting access)
 - Fewer discards (c = oversimplification, and how to enforce this)
- Agreed that the criteria should be defined by what high-impact fishers are NOT doing.
- Whatever criteria decided, it must be realistic and enforceable.

Other:

- Fishers are forced into catching certain species because of their price, so it would be unfair to sanction certain gears that are used for these species.
- If a fishing group has been historically fished by trawlers, it's not being damaged. Fish stocks replenish and the seabed is untouched.
- In winter, the fishery is self-policing because no-one is using their quota anyway.
- Claims that o10m boats are discarding their bycatch in the 6 mile zone, which makes the u10m fleet appear to be high impact.



Participants noted that these impacts could mostly be realised through BEHAVIOUR CHANGE.

Criteria for measuring impacts

- An overarching points system/index could be used to measure what is low impact.
- Points could potentially be attached to (1) weight of boat, (2) *restricted horsepower, (3) **days at sea measured in hours, (4) lifespan of engine, (5) returned waste (could weigh waste being brought back to shore and not dumped in sea).

* It's better on fuel efficiency (and CO2 emissions) to have a larger engine that is restricted, than a smaller engine running at full power. As long as spot checks were made of engines, this would be progress on EU policy that only looked at total horsepower of engines.

** If measured in days, people could fish up to 24 hours, or do multiples of tows. Not measurable.

- Whatever the criteria they are they need to be enforceable.
- Discards too complicated to include as a simple measure.

Group 3 - JU [potting]

What impacts should be reduced and what criteria could be used to assess low impact?

- Stock – target
 - Technical measures such as size limits, e.g. have a standard, agreed size and design for whelk riddles
- Stock – non-target
 - Returning alive
 - Finding other uses for discards
 - Makes sense to look after non-target species as they may become target species in the future
- Pollution
 - Picking up litter
 - Recyclable plastic and availability of recycling facilities for plastic
 - Don't pump out bilge water
 - Improved boat design to reduce pollutant leakage & more efficient
 - Would like to see a scheme to help upgrade gear & engines
- Spawning
 - Would like to see subsidies for closed seasons, and recognition that fishers are providing a public good
- Seabed damage
 - Difficult to quantify for potters as they try to minimise the impact of pots hitting seabed as this damages the pots and therefore costs them
- Animal welfare
 - Best practice in looking after product after catch to ensure it is in the best condition – better quality catch = higher prices
 - Returning by catch undamaged

4 x commercial fishermen (all potters) and one merchant

What impacts should be reduced and what criteria could be used to assess low impact?

- **Seabed damage.** Potters feel this is difficult to quantify because they don't think they cause much of an impact and they actively try to avoid causing damage.

- **Target species.** Technical measures are in place but IFCA's can't/ won't enforce them. Should have an agreed size and design of gear e.g. riddle for whelks, no current limits.
- **Stocks.** When pressure on a stock is alleviated there is an initial bounce back then it plateaus. Data is needed to allow and validate their fishing activity. Citizen science. There is definitely a role for fishers in data collection. Scientists need to design what they want then approach fishers with a list of goals/ requests.
- **Pollution.** Boat design can keep fuel leaks on board. Could incentivise/ promote certain boat designs.
- **Spawning-** moved away from MLS since the Landing Obligation. Potters have high viability of being able to return undersized catch to the sea. Demand for compensation from Government (not current policy). Need to subsidise a closed season for providing public good (similar to agriculture).
- **Bycatch.** They strive to return bycatch to the sea undamaged or find other uses for it e.g. bait.
- **Non-target species.** Recognise the need to protect non-target stocks as well which includes returning to the sea with viability. They don't want to unintentionally kill anything, upset eco-system or do anything that could affect the target species.

Other discussion points:

- Recognise that enforcement is an issue – perhaps have a system of peer policing
- Should be about changing bad practice, rather than punishment
- Role for fishers in citizen science – on board data collection & design of approaches that would work practically on a fishing vessel
- Need to create a market for 'low impact fishing' products – would need to include education and awareness raising of the sustainability (low impact, less food miles etc) of fresh, locally caught products which is of high quality. Recognition that MSC is a bit of a 'club', with many small fishermen not being able to afford the cost of accreditation – there needs to be another means of recognising sustainable, local fish that all fishers could sign up to.
- Role for buyers/merchants as a way of enforcement – if they demand quality, traceability and sustainable products. This needs better links between merchants and fishers.
- As well as criteria for assessing low impact fishing, also need to encourage best practice.
- Need to improve communication between different fishers/gear & work better together.

Other discussion points

Current management is not fit for purpose. Management measures come down to best practice. In theory, you shouldn't have bad practice with good management measures. Good management is about education and enforcement/ policing. Punishment doesn't work, they need a reward or incentive for fishing sustainably/ with best practice.

The only reward/ incentive can be monetary as this is tangible and efficient. They are businesses in a market driven sector.

Communication between boats has got better but maybe they need a forum/ communal area to flag gear positions however they recognise there could be drawbacks to that. They actually operate better with foreign boats. They have a WhatsApp group with French fishers which have over 50+ members. However, signal when out at sea is unachievable for small boats so the communication isn't real time.

Transport destroys the quality of products and adds to the carbon footprint. Brexit is an opportunity for promoting British fish. MSC is not practical as it is an expensive, closed club. We should just be promoting local produce/ locally sourced products. We need to look at the supply chain and create a better link between fishers and merchants.

Need to focus on marketing. The 25-45 year age group care about welfare and source of food- local fish should be in their focus.

Traceability- creates a story of the food. Increases demand and value e.g. French specifically seek out British caught shellfish because they know the source. There should be greater demand from merchant/ buyer for traceability. This could also provide a tool for monitoring/ enforcement.

Fishers would make the best inspectors. Idea of peer policing (wouldn't be very popular but may be effective).

Group 4 - PM

- Fisher-science partnerships to understand mortality and seabed / ecosystem impacts
- Science vs politics
- Local management that is regionally tailored as reality is different – impacts are often local and they vary hugely.
- What is 'good' or 'sustainable' – views are different but needs common understanding
- Infrastructure – need to work with local authorities and costs money.
- Stock management must be based on science, not politics - need fishers input, must be more accurate for better sense of mortality/removal;
- More time to consider science/impacts – less knee-jerk responding;
- More localised management – is not in inshore interests to not look after environment (impacts on opportunities, incomes etc.) so regional management (rather than a blanket approach) more sustainable;
- Design gear that better targets specific species – best catch for least effort;
- IFCA's focused on conservation – do people have same view of 'good', 'sustainable'?
- Share best practice;
- Incentivise litter/gear removal – better infrastructure, different materials in gear
- Control seal population.

Group 5 - HO [angling]

All anglers on this table.

Impacts that cannot be reduced:

- Bycatch – does this exist in angling as they are happy to catch any fish;
- Seabed impacts – the impact is negligible except weights and anchors, which will not change without technological improvement.
 - Later they decided bait digging might be an impact that could be reduced.
- GHG pollution was thought not possible to reduce without improvements in engine technology.

All others could be reduced through a combination of:

- Management measures (codes of conduct);
- Bag and size limits (mentioned slot limits – i.e., min and max size);

- Education on fish welfare (handling to reduce post release mortality);
- Better use of appropriate tackle (barbless hooks, circle hooks, thicker line, stone weights etc);
- Reduction in Bait digging – habitat damage;
- Single use plastic reduction (e.g., line recycling, clearing litter, etc);
- Technological developments (e.g., release weights, electronics, fuel efficiency, etc); and
- Contributing to science and research (e.g., tagging etc).

Additional notes

- Stock – codes of conduct; bag limits and size limits could all be effective.
- Bycatch is very difficult as its unpredictable and often too late by the time its hooked
- Education – for fish welfare & handling, to reduce other impacts; to use correct tackle, hookds and follow best practise eg circle hooks requires outreach work
- Habitat impacts – mainly through bait digging
- Pollution – offer places to dispose of single use plastic; but prevention is also needed
- Fuel use – hard to do but tech change possible
- Research on release weights

Group 6 – RA – impact priorities

Reducing plastic pollution and lost fishing gear

- Providing facilities for the recycling and removal of waste landed and old equipment would help reduce this impact

Bycatch

- Quite a lot done and some bycatch may be unavoidable
- What happens with it after is important
- Also regulations help create the problem with strict rules about what can be caught when and what gears can be carried on board.
- Increased flexibility and responsiveness in regulations would help – working with fishers

Target stocks

- Change in economic conditions and demand can add pressure to certain stocks, e.g. increase in whelk fishing

Other issues:

- Absence of markets for some species can cause problems. Lack of market for small spider crabs means no incentive to target them but they are around in large number and cause problems for many fishers as bycatch.