Scottish Environment LINK

Improving inshore fisheries data: Consultation on requiring electronic tracking and monitoring technology on under 12 metre commercial fishing vessels

November 2023

Introduction to Scottish Environment LINK

Scottish Environment LINK is the forum for Scotland's voluntary environment community, with over 40 member bodies representing a broad spectrum of environmental interests with the common goal of contributing to a more environmentally sustainable society.

Its member bodies represent a wide community of environmental interest, sharing the common goal of contributing to a more sustainable society. LINK provides a forum for these organizations, enabling informed debate, assisting co-operation within the voluntary sector, and acting as a strong voice for the environment. Acting at local, national and international levels, LINK aims to ensure that the environmental community participates in the development of policy and legislation affecting Scotland.

LINK works mainly through groups of members working together on topics of mutual interest, exploring the issues and developing advocacy to promote sustainable development, respecting environmental limits. This consultation response was written by LINK Marine Group

1. Response

1.What is your opinion on the proposal to require a tracking device on all under 12 metre commercial fishing vessels transiting or fishing within the Scottish zone, and Scottish registered under 12 metre fishing vessels wherever they operate?

Agree
Disagree
Don't know

Please explain your answer

Reforming fisheries for resilience is one of the key recommendations in LINK's Ocean Recovery Plan and therefore LINK members fully support proposals to improve the spatial knowledge of fishing effort to aid marine planning and MPA management. These measures are vital if we are to ensure a just transition to sustainable climate and nature smart fishing practices.

Implementation of VMS is also essential to fulfil the Bute House Agreement commitment to '[extend] the requirement for Vessel Tracking and Monitoring Systems across the whole commercial fishing fleet by the end of the current parliamentary session'. The Agreement also includes a commitment to '[increase] capacity and capability in marine monitoring and protection', meaning the Marine Directorate must, alongside the rollout, ensure there is resource provided to adequately monitor the data and capacity to take appropriate enforcement action as needed.

To fulfil Scotland's ambition to be a “world class fishing nation”, in line with the Fisheries Management Strategy, comprehensive documentation of fisheries is vital. Equipping vessels with VMS is a crucial step in this direction. However, while tracking is a useful tool with which to understand where vessels are geographically, in order to improve understanding of the “when” and “where” vessels are actively fishing and the impact of that fishing practice there will be a need for further use of technology. Again in the Ocean Recovery plan LINK advocated for the use of REM on over 10m vessels and on high risk under ten metre vessels to be in place by the end of this year. Whilst we understand this timescale is not now achievable, we believe that this is a crucial initial step in changing fisheries practice to effectively manage our rich and diverse inshore waters for nature, climate and future fisheries. In time we would then like to see roll-out across the entire inshore fleet.

Enhancing the collection and availability of inshore fisheries data is not only vital in order to address knowledge gaps in fishing activities but will also contribute to efforts to manage fisheries in a more sustainable manner, bolster marine environmental protection, strengthen control and enforcement mechanisms, and offer more informed spatial planning decisions. Therefore while we support this move towards vessel tracking we believe it needs to be supported by other technology, including at the very least gear sensors for non high risk vessels and cameras in the higher risk vessels (in our view this would include vessels using gill nets, longlines - from a bycatch perspective - and trawling from a stock sustainability, species impact perspective).

2.What is your opinion on the proposal that the use of vessel tracking devices on under 12 metre commercial fishing vessels should be complemented by the use of Remote Electronic Monitoring (REM) on a number of vessels?

Agree
Disagree
Don’t know

Please explain your answer

LINK members support that the use of vessel tracking devices on under 12 metre should be complemented by the use of REM. In previous consultation responses, we called for a full scale adoption of REM by the Scottish Government, as a way to demonstrate leadership in modern and sustainable fisheries management.
Additional scientific data would be a clear benefit of having REM for some vessels to improve monitoring and management of stocks, particularly in areas of high fishing intensity. It can also help prevent gear conflict.
The pairing of VMS, gear sensors and REM with cameras provides detailed insights into the geographic scope and effort of fishing activities and will help not only with fisheries management but also support the integrity of MPAs where fisheries activities are either prohibited or limited in some way. This data allows for a more precise assessment of where vessels operate, which is a fundamental component in developing effective fisheries management plans.

This technology can meet many management objectives including understanding catch composition and bycatch activities but where cameras are in place it will be pivotal in addressing bycatch issues. Certain gear types are well known to be associated with marine species bycatch such as gillnets and longlines and these fisheries should be considered high risk and therefore high priority for REM with camera application. We note that the latest research from the Scottish Entanglement Alliance estimates that 6 humpback and 30 minke whales are becoming entangled each year in the Scottish creel fishery. For the west coast of Scotland the estimated fatal entanglement rate was 2.3% of a recent abundance estimate, suggesting a risk of localised depletion. The research recommends that a better understanding of the spatio-temporal distribution of fishing effort, would help identify high risk areas and could be used to target mitigation. LINK members believe that tracking vessels can help provide these data.

Moreover, where known mitigation is available it can be used to assess and support bycatch mitigation. REM footage and VMS data can also pinpoint hotspots for some species and mean that areas with significant bycatch concerns can be identified, leading to more targeted mitigation efforts. Additionally, REM facilitates the identification of the species subject to bycatch and can attribute responsibility to specific fisheries. This level of specificity is critical in devising strategies to minimise the impact of bycatch on vulnerable species and ecosystems.

3.What is your opinion on establishing REM fleets of under 12 metre commercial fishing vessels based on the parameters set out in paragraph 16 of the consultation paper (copied below for ease of reference)?

"16. From a compliance perspective, REM fleets could comprise vessels selected on a risk-based approach, for example in relation to fishing location, target species or gear in use. From a scientific evidence perspective, the majority of our inshore commercial fishing vessels target non-quota stocks that are not currently subject to catch or effort limits. Using REM on a number of active inshore vessels would be a good way to improve monitoring and management of these stocks. Vessels could be selected based on catch volume, catch rate; or based on spatial considerations such as areas of high fishing intensity."

Agree
Disagree
Don't know

Please explain your answer

LINK members disagree with the parameters set out in paragraph 16 of the consultation. To achieve fully documented fisheries, it is imperative that REM with camera systems be deployed across all vessels in both inshore and offshore fleets.

LINK Ocean Recovery Plan calls for the whole fleet to be fully documented and accountable. While we want to see the rollout of Remote Electronic Monitoring with cameras (REM) across the whole fleet, we believe it should prioritise over 10m vessels and high-risk under 10m vessels.
We would advocate that REM is taken forward on a risk-based approach in the first instance rather than a reference fleet basis. High-risk fisheries would include those that we know are high risk for bycatch issues - gillnets, longlines, trawls, as well as those that may be high risk for biodiversity impacts such as trawl vessels to better understand true levels of catch composition and treatment of catch. All vessels in these categories should then be required to have cameras in the first instance. Reference fleets, where only a representative sample of certain fleets have the technology, do not represent a level playing field which is important when vessels are fishing alongside one another.

We think that fisheries targeting data-deficient fisheries, depleted stocks should also be included as high-risk and be required to have cameras.

There is also the additional challenge of reference fleets changing behaviour and not indeed being representative of the true nature of the fishery. It will be key to understand how many vessels are present under the different categories in order to understand the scale of application, with a view to phasing in using a risk-based approach.

Stakeholders should be consulted on the 'risk based approach' if that is used- i.e. what areas would be most appropriate to roll REM out in, what gear types should be prioritised, what the cut off limit of catch volume should be.

4.We consider the high resolution data collected from vessel tracking devices and inshore REM systems to be valuable for fishers and the industry as a whole. Which attributes do you see as being valuable?

X See this as most valuable Providing evidence of fishing activity for the purposes of informing decision making in relation to the shared marine environment, such as offshore renewable developments and aquaculture licensing.
X Improving the marketability of produce by providing consumers with accurate information on catch locations, which may improve their confidence when purchasing seafood.
X Helping to prevent and resolve conflicts at sea which can arise as a result of gear positioning, and in doing so avoid or reduce associated business disruption.
X Other effects

Please explain your answer

LINK members notice that none of the attributes above clearly link to the need of tackling the nature and climate crises.

We see the first attribute (Providing evidence of fishing activity for the purposes of informing decision making in relation to the shared marine environment, such as offshore renewable developments and aquaculture licensing) as being the most valuable of the three in terms of feeding into marine recovery targets and marine spatial planning. As highlighted in the consultation, there is a huge lack of data to inform inshore fisheries, which is urgently needed if we are to transform fisheries in this key part of the marine environment. This is crucial to understand the use of our inshore waters, protect MPAs from damaging activities, improve understanding of bycatch and other biodiversity impacts associated with fisheries.

While this information can be used positively to promote sustainable practices used by fishermen and support the marketing of their produce, it is also important for consumers to know where their seafood has come from and to encourage sustainable choices such as local consumption from low impact sustainable inshore fisheries to support local economies. We therefore agree that REM can help improve marketability of produce only if the information is linked to a very simple and verifiable source at point of sale.

The Scottish Government has international obligations to enhance fisheries bycatch monitoring, particularly concerning marine mammals, as stipulated by the Import Provision of the US Marine Mammal Protection Act. This rule seeks to prohibit seafood exports to the USA caught with fishing gear that poses a significant risk to marine mammals, exceeding US standards . Increased transparency and effective monitoring of fishing activities, obtained through REM with cameras, will benefit Scottish fishers by providing greater confidence to UK retailers and global markets to source from these fisheries. Given the wider societal benefits from fishing vessels adopting REM, a collaborative promotional effort in engagement by regulators, buyers, processors and fishers could enable the catching sector to leverage their involvement for commercial advantage. As public interest in food provenance and sustainability grows, "REM" fishing might become a mark of quality potentially commanding premium rates in the retail sector.

In terms of other benefits of REM and VMS, their use would facilitate improved monitoring and compliance with MPA management measures, and support the enforcement of other spatial and effort management measures as appropriate. It will also help improve compliance, allow the Scottish Government to better monitor and prevent bycatch, as well as reduce gear conflict.

The data collected from REM and VMS will play a pivotal role in advancing more sustainable fisheries management strategies, including the identification of crucial fish habitats such as spawning and nursery

grounds, as well as the presence and distribution of rare species. The long-term nature of their activities, when monitored through REM, can not only inform future fisheries management but will also prove indispensable in monitoring the impacts of climate change over both the short and long term.

The data provided from REM will serve as a valuable tool for tracking and quantifying bycatch incidents and allowing for informed management to reduce bycatch in Scottish waters. REM can help, for example, identifying high-risk entanglement areas and contribute to implementing suitable mitigation strategies. LINK members believe the Scottish Government should make data available, by publishing top level stats on their website.
Bycatch monitoring in Scotland is currently poor with the UK Bycatch Monitoring Programme covering less than 1% of the UK fishing fleet. An attempt to use self-reporting was implemented in 2021 when the UK government set a mandatory requirement under fishing vessel licence conditions for fishers to self-report any bycatch of marine mammals to the Marine Management Organisation (MMO). A year after this requirement was implemented, the MMO reported that only 19 reports by fishers had been received; 17 were nil results and two showed injury and mortality to marine mammals, one harbour porpoise and one common dolphin. No reports of bycatch were received from Scotland. In stark contrast, the Bycatch Monitoring Programme (BMP) estimated over 1000 porpoises, dolphins, and whales die in fishing nets in the UK every year. Consequently, self-reporting clearly emerges as an unreliable method for documenting the deaths of endangered, threatened, and protected (ETP) species in fishing nets. It perpetuates underreporting and generates data that cannot be independently verified, exacerbating concerns around the issue of ETP species bycatch.

Furthermore, the current monitoring methods primarily focus on marine mammals, leaving other ETP species such as seabirds, turtles, sharks, and rays which are vulnerable to bycatch, largely unconsidered. REM will allow for all ETP species bycatch incidents to be tracked and recorded, providing valuable information for bycatch monitoring and to inform mitigation.

5. Do you agree with the assessment of impacts in the partial Business and Regulatory Impact Assessment?

Partial BRIA Improving inshore fisheries data consultation on tracking and monitoring technology on under 12 metre fishing vessels

Yes
No

Please explain your answer and provide evidence to support any statements.

LINK members support option 3 as stated in the BRIA. We agree with the approach in the BRIA to consider simplicity of use and cost effectiveness for both regulator and user.

6.Are there any further vessel tracking matters relating specifically to inshore fishing that should be considered as part of this consultation?

Yes
No

Please explain your answer

We welcome the Scottish Government coming forward with these proposals and the acknowledgement that there is a vital need to understand better the level and impacts of fishing in our inshore waters. We support the

proposals as a vital first step but feel that the tracking should come with the addition of gear sensors in non high risk vessels and with REM with cameras in high risk vessels. In doing so we can minimise the negative impacts of fishing, understand better where fishing is occuring, allow effective protection of the MPA network and support fishers who are operating in the most climate and nature smart way.

We note that the REM consultation analysis showed strong support by stakeholders for REM with cameras to be rolled out across the over 12m fleet and yet this is not being progressed. We hope that this can be considered the direction of travel and that this is made clear to stakeholders while using the opportunity to make VMS and REM on over 12m fleet as comprehensive as possible in the short term. Achieving the vision of Scotland becoming a "world class fishing nation" hinges upon the implementation of REM, offering a spectrum of advantages that align with UK and Scottish ecosystem and bycatch objectives. If executed effectively, Scotland possesses the potential to establish an international standard for best practice in fisheries monitoring by implementing iVMS and REM across both the under 12m and over 12m fleet.

7.Are there any further REM matters relating specifically to inshore fishing that should be considered as part of this consultation?

Yes
No

Please explain your answer

LINK's Ocean Recovery Plan includes recommendations for fully documented fishing delivered through REM, including the use of cameras, to improve data collection and to help end Illegal, Unreported and Unregulated (IUU) fishing.

The plan also calls for a new vessel licensing system "that allocates fishing opportunities according to transparent and objective environmental, social and economic criteria to incentivise the most sustainable fishing practices" which should also be based on conformity with REM technologies to ensure best practice.
To ensure the successful deployment of REM in the under 12m fleet, it is imperative to establish a formalised plan that includes a precise timeline for achieving specific outcomes. This plan will serve as a roadmap for compliance and accountability.

In addition to the plan, it is essential to create clear data objectives for REM implementation. These objectives should outline the intended use of the collected data and help enhance transparency across various stakeholders, including government entities, NGOs, scientific communities, and the fishing industry. The development of these data objectives not only strengthens the effectiveness of REM but also ensures that the information is harnessed in a manner that maximises its utility. This transparency empowers all parties involved to have a better understanding of how the data will be leveraged and fosters trust in the decision-making process, ultimately contributing to more informed and cooperative fisheries management.
It is crucial to carefully consider who will have access to REM data, striking a balance between privacy and the necessity for comprehensive independent (environmental) scrutiny. We urge that the data collected from the implementation of REM is publicly available, even if by request. It is key that these results are divulged and made available in a timely manner to increase transparency on fishing activities and bycatch incidents of ETP species. With respect to ETP bycatch there should be an obligation on the Scottish Government to publish ETP bycatch annually on their website.

The government's plans for data handling remain unclear. A consideration for data collection should be to ensure that those reviewing the data possess the requisite knowledge to capture the relevant information needed for management purposes and to achieve data objectives. Data availability, analysis and reporting should be undertaken in a timely manner according to a reasonable schedule. The exploration of Artificial Intelligence (AI) and machine learning to aid data analysis should be pursued, but should not delay a clear plan and schedule for data handling and reporting.

This response was compiled on behalf of the Marine Group and is supported by: Hebridean Whale and Dolphin Trust , Marine Conservation Society, National Trust Scotland, RSPB Scotland, Scottish Seabird Centre, Scottish Wildlife Trust, Whale and Dolphin Conservation, World Wide Fund for Nature.

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