



SEAFISH INSHORE FISHERIES PROJECT

Evidence Gathering in Support of Sustainable Scottish Inshore Fisheries*

Introduction

The European Fisheries Fund (EFF) is providing £1.4 million of funding through Seafish to support research within Scottish inshore fisheries. This is in direct response to Scotland's Inshore Fisheries Groups (IFGs) recognition that there is a lack of evidence (data) upon which to better manage Scotland's inshore fisheries. The project 'Evidence Gathering In Support of Sustainable Scottish Inshore Fisheries' has been commissioned to take place between June 2014 and July 2015, in support of the future sustainability of the industry and consists of 7 sub-projects or 'Work Packages'. The funding from the EFF therefore aims to benefit the IFGs by addressing key knowledge gaps identified in their management plans. These include, for example, establishing the location and footprint of fishing activities, improving catch data to enable stock assessments, improving local market opportunities for inshore fisheries, and developing an information resource base for inshore fisheries management. This pilot work is part of a 7 year project plan which will include accessing additional funding from the European Maritime and Fisheries Fund (EMFF), thereby contributing to the longer-term development of the industry and sustainable fisheries management. The contractors commissioned to deliver the Work Packages are now seeking engagement with the industry to undertake their research. The results will be used to inform future fisheries policy, therefore ensuring the programme runs in close working partnership with IFGs, is of paramount importance.

Benefits of collecting fisheries data

Data collection and research are central to fisheries management and benefit the fishing industry by providing hard evidence to support management decisions. Scotland's IFG management plans call for fishing activities to be economically viable and environmentally sustainable. In order to achieve this aim it is essential to understand the extent of fishing activities and the state of stocks at a locally relevant scale. Economic data is required to understand fisheries market dynamics (e.g. the value of the landed species versus the costs of harvesting the species), and social data provides information on the degree to which communities are dependent on fisheries. Environmental data (e.g. habitat maps) can help managers and fishers identify sensitive areas, such as nursery habitats.

The marine environment is increasingly busy, and competition for space and resources is growing. Within Scotland this is partially due to the expanding marine renewable and aquaculture industries, and the designation of 30 new Marine Protected Areas (MPAs). Evidence of the location and scale of fishing activities will enable fishermen to be better represented in the marine spatial planning process (e.g. during the siting of aquaculture and renewable energy developments), and can be used to manage fishing activities within and around MPAs. In addition, data collection programs that are integrated with fisheries management plans can also allow fisheries to enter accreditation programs (e.g. MSC), and thereby access markets with improved premiums.

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*Inshore fisheries are defined here as operating between 0 to 6 nautical miles, with vessels mainly <12 meters.

Project Work Package summaries



1. Establishing the location of fishing activities within Scottish inshore areas

This project invites skippers to test the innovative Succorfish SC2 vessel monitoring and communication system on up to 300 inshore fishing vessels. The Succorfish SC2 system uses GPS tracking that is accurate to 2 meters, and reports vessels position, course and speed at 1 to 2 minute intervals over Automatic Identification System (AIS), which operates through a VHF safety channel. The technology will be installed on vessels at no cost to the skipper/owner, and the data will be free to view in the public domain. During and after the project the industry may use the technology to benefit their business as they see fit. This project is available to skippers operating within West coast IFGs, and is seeking voluntary participation across all fishing sectors.

2. Monitoring fishery catch to assist scientific stock assessments in Scottish inshore fisheries

This pilot project aims to identify fisheries that have limited stock assessment information, and provide fishermen with the opportunity to learn how to collect data for stock assessment needs. Data collection by fishermen will initially be undertaken in conjunction with onboard observers. However, this work aims to build capacity for self-reporting by fishermen, as well as trial different methods of self-reporting directly with the industry. Fishermen that successfully complete the training and data collection may be registered as competent to undertake such work in the future, which will be of direct benefit to fisheries management within the IFGs.

3. Identifying catch composition using technology to enable self-reporting

This project will mainly test Electronic Monitoring Systems (EMS) as a method for verifying the accuracy of self-reporting by fishermen. The project contractors wish to fit a number of willing vessels with 2-3 video camera units, GPS, as well as rotation and hydraulic sensors. Other novel technology for collecting fisheries data will also be tested. The cost effectiveness of video cameras versus onboard inspectors

will be assessed. In the long term, video monitoring could allow fishermen to demonstrate 'good practice' and show that they are adhering to management actions (e.g. total catch allowances and discards).

Projects 2 and 3 are complimentary, and are available to 10 fishing vessels (<10m) operating on the West coast. The target ports are Stornoway, Ullapool, Mallaig, Portree and Oban, and the project would like to include a Nephrops trawler, a scallop dredger and 8 vessels using static gear (creels/pots). All research will be conducted over 40 days at sea (combined), and skippers will receive financial recompense subject to successful completion of the work.

4. Pilot study to define the footprint and activities of Scottish inshore fisheries by identifying target fisheries, habitats and associated fish

This work will access and evaluate existing data that describes human activities in the marine environment, as well as physical and biological characteristics. Such data may include, for example, fishing activity (location, effort, gear types), location of renewable energy and aquaculture sites, shipping activities, marine habitats (sediment maps) and conservation boundaries. The data will be combined and presented into a user-friendly visual interface that is tailored to fisheries manager's needs. The pilot data visualisation tool will be internet-based, and will be tested by the industry to assess its ability to inform and support fisheries management. South West Scotland (Clyde) and the East Coast (Moray Firth) are proposed as the pilot study areas.

5. Improving market intelligence and co-ordination in Scottish inshore fishery production

This pilot study aims to engage directly with the inshore industry in order to evaluate the potential of opening up market opportunities and subsequent sales through strategic communication to direct, local markets. The project will assess supply requirements and constraints of

both increasing catches and securing commercial sales and will seek to address identified obstacles through improved communication networks, collaboration and cooperation within the industry and with customers. The project aims to assess existing communication supply chain networks and creativities, and develop new initiatives to improve the understanding of both the local market and the potential capacity (volume, composition and seasonality of products) to meet and stimulate local demand. The project is seeking to engage with industry in several target areas around Scotland.

6. Integrating stock management considerations with market opportunities in Scottish inshore fisheries

This project aims to assess the economic and stock benefits of introducing a minimum market landing size (MMLS) for certain shellfish species. The contractors will evaluate how such an intervention could take place at a regional level for Nephrops and velvet crab fisheries. In addition, the project will assess the size distribution of shellfish landed (above MLS) on a seasonal basis, establish costs and returns associated with different sized specimens, establish consequences of increasing MLS through pilot economic assessments, and evaluate the potential for increased MLS as a tool for improved returns and fishery sustainability. The data will be collected via literature reviews, interviews, questionnaires and steering groups meetings. This project is seeking involvement from the fishing industry in several case study areas around Scotland.

7. Establishing a dedicated information resource base for Scottish inshore fisheries

This programme will develop and trial a web-based searchable database that is dedicated to Scottish inshore fisheries, with key input from all IFGs. The database will present fisheries data currently available within each IFG management plan, and will update information streams as and when new data becomes available. The database will also be tailored so that individual IFGs can easily identify

and explore the information available for specific fisheries, and adapt their management plans accordingly. Information uploaded to the database per IFG may include (but is not limited to) vessel characteristics, gear use, fishing locations and landings. The database plans to simplify access to information, and improve knowledge exchange between IFGs for strategic and management planning. The project will be available for all IFGs across Scotland, with local, secure access to all sensitive data.

Project structure

Seafish, working in partnership with Marine Scotland Fisheries Policy, consulted the IFG management plans and formulated project proposals that would support evidence gathering for inshore fisheries management. The resulting European Fisheries Fund inshore fisheries project work package proposals were commissioned by competitive tender and have been awarded to independent contractors. The seven Work Packages will take place on a short-term, 'pilot scale'. The aim is not to supply conclusive data, but rather to test the suitability of technology and methodology that may benefit inshore fisheries management in the future with industry knowledge and experience.

The Work Packages require direct voluntary engagement with the fishing industry, either through commissioning vessels to assist with research, or via knowledge exchange and interviews. In all cases, the industry will be informed of why the data is being collected, how it is being used and how this can benefit fishermen. Participants will be assured of strict confidentiality protocols and will have the opportunity to feed into and benefit from techniques and trials. The research data to be collected is non-statutory information and will not be used for regulatory purposes.

Two regional project facilitators have been appointed to liaise directly with the fishing industry, and the Marine Alliance for Science and Technology Scotland (MASTS) will oversee general project management.



SEAFISH INSHORE FISHERIES PROJECT

Contact details

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