# Participatory Trade-off Analysis for UK Fisheries Management Plans

## Policy Briefing: Resilience of Coastal Communities (ROCC) Project

**The UK's Fisheries Act 2020 emphasises greater involvement of the fishing industry in decision-making. Approaches and tools are needed that engage the fishing industry in understanding and deliberating the distribution of costs and benefits (trade-offs) of potential management measures in Fisheries Management Plans (FMPs). The Plymouth Fishing and Seafood Association (PFSA) collaborated with SMMR Resilience of Coastal Communities (ROCC) researchers to pilot a participatory trade-off analysis tool: Marine Planning Trade-off Analysis (MaPTA). This policy briefing presents the benefits and limitations of deploying MaPTA in fisheries management planning and the results and recommendations from a case study of the bass FMP.**

### 1. MaPTA approach

MaPTA[1] is a structured discussion on the acceptability of trade-offs arising from management measures:

I. Assess the status of fish stocks, ecosystem features and the wellbeing of stakeholder groups.
II. Assess the distribution of positive and negative effects (trade-offs) of management measures.
III. Deliberate the acceptability of the trade-offs.
IV. Identify response options and alternative measures that mitigate potential ecological and social harms.

### 2. Bass FMP case study

- The Bass FMP is one of the first to be developed under the Fisheries Act (2020).
- At a workshop in October 2024, 16 commercial bass fishers assessed the trade-offs of two hypothetical bass management measures**:** removal of the authorization system and the 5% trawl bycatch limit.
- Participants then proposed and assessed alternative management measures

### Trade-offs of proposed bass management measures

Current status:

- Bass stock and associated ecosystem features perceived to be healthy in contrast to scientific assessments.
- Hook and line fishers particularly vulnerable due to recent pollack ban.
- Fixed netters struggling under current catch limits.
- Trawlers doing well, but technology efficiency could be improved.

Trade-offs: removal of bass authorisation

- Benefit of reduced barriers for new entrants to the fishery and more equitable access opportunities.
- Risk that authorised vessels will be devalued and individual catch limits and market prices reduced due to increased supply.

Trade-offs: Removal of 5% bycatch limit for trawls

- Reduce wasteful discards and improve operational efficiencies of trawls, and lower prices for consumers from increased supply.
- Risk that trawls target bass and out-compete other fishing methods on price of bass, and may require reduced catch limits across all gears to maintain stock sustainability.

[1]Fortnam, T., Chaigneau, T., Evans, L., 2022. Marine Planning Trade-off Analysis (MaPTA): Facilitator Pack. University of Exeter, doi: 10.1016/j.envsci.2022.08.010

### 3. Benefits of MaPTA

- Enhanced understanding of stakeholder perceptions of trade-offs.
- Identification of acceptable compromise solutions.
- Potential for improved transparency and trust- and empathy-building.
- Reveals complex factors influencing perceptions of fairness.
- Develops a shared understanding of difficult choices in FMPs.

### 4. Limitations and risks of MaPTA

- Resource requirements, including skilled facilitation and time (1 day).
- Outputs are determined by who participates in MaPTA. Trawlers were underrepresented and recreational sectors absent at the workshop.
- Making trade-offs explicit potentially exacerbates conflict among stakeholders.
- Scepticism about whether inputs would influence decisions, reflecting wider mistrust in fisheries governance.

### 5. Recommendations

- Use participatory trade-off approaches like MaPTA in broader FMP stakeholder engagement processes.
- Streamline the MaPTA process for practicality in wider implementation.
- Ensure balanced representation across all gear types and sectors.
- Involve scientific experts to answer stock and ecological questions in real-time.
- Establish clear pathways to policy influence, including in-person participation of decision-makers.

## Alternative bass management measures

While agreeing to keep cetain regulations in place to promote bass stock recovery, the following additional measures were discussed.

**1. Multiple gear types with equal catch limits**

- Trawlers and fixed netters permitted to catch more while hook and line fishers catch less.
- Considered a necessary step toward fairness by some.

**2. Species diversification and gear flexibility to offset impacts**

- Increase access to bluefin tuna and pollack.
- Further research on sustainability of bluefin tuna fishery needed.
- Allow multiple gear types to be used, but only for under-8m to mitigate risk of overfishing.

**3. Modified bycatch management**

- Increase bycatch limit for trawls or permit vessels to rollover the 5% across multiple trips.
- Strikes balance between addressing discards and protecting inshore fishers.

**4. Fixed net regulation adjustment**

- Increase bycatch limits and allow fixed netters to intentionally target bass with increased mesh sizes.
- Net replacement unaffordable and increased bycatch could affect other commercial species.

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