

The Drummond Lecture



A Future for Shellfish

A personal view

Dr Peter Hunt



The UK Industry

- Shellfish often perceived as a 'cottage industry'
- Reality very different:



Value of Seafood Landed into UK (2008)



A Diverse and Small Scale Industry

- Disparate multi-species industry
- Many small businesses
- Little security or political support
- Poor science
- Ravaged by pollution and toxins
- Environmentally challenged
- High dependence on export markets
- No incentive to investment





Industry Strategy

- Strategy for the Control and Development of the Shellfish Industry
- The Shellfish Industry Development Strategy (SIDS)
- Development Opportunities
- Maximising biological and economic yield
 - Raising the profile of shellfish
 - Improving security of tenure
 - Optimising resource management





A Failed Common Fisheries Policy

- Failed to prevent:
 - Overfishing;
 - Fleet overcapacity;
 - Heavy subsidies;
 - Low economic resilience;
 - Breakdown of coastal fishing communities;
 - Decline in fish stocks;
 - Decline in fish caught.
 - Despite huge costs in managing the CFP system.





2020: The Common Fisheries Policy

- Separate management of inshore fisheries within 12 nm Territorial Waters;
- Control and management within 12 nm transferred to the National State
- Integrated fisheries management plans designed to achieve sustainable exploitation
 - Industry participation in management
 - Commitment to regional science based management plans addressing socioeconomic implications, effective compliance and minimising environmental damage.





Inshore Management

- 2012 CFP retained historic access by foreign vessels in 6-12 nm zone
- National technical measures applied to all foreign vessels
- By 2020, consensus towards removing all preferential foreign access to territorial waters, better reflecting equal access
- Beyond 12 nm, offshore common fisheries operated to separate control and management regime :
 - National effort control system within EU pool
 - Minimising by-catch and permitting no discards





Sustainable Management

- Increased yields for some species from sustainable management
- Latent and unregulated effort removed from inshore fisheries
- Detailed reporting for all fishing mortality
- Detailed mapping of fishing effort
- Stock and gear assessments to identify data gaps and best practice
- Management plans and formal accreditation
- Zero tolerance to non-compliance
- Fisherman commitment to best practice management





Regional Management Plans

- By 2016, comprehensive management plans established for most species and fisheries
- Based on independent science including controls on fishing methods, vessel size and technical measures
- Regulating Orders strengthened
- <10m actively and preferentially promoted
- Special licensing and training arrangements for youngsters
- Previous misdirected legislation reversed
- Sustainable production doubled
- New Crown Act redirected revenue to sustainable marine development, emphasising food security



Environmental Impact

- Shellfish industry accepts responsibility to manage impact
- Established activities not challenged and socio-economic consideration integrated into impact assessment
- Industry committed its knowledge of the marine environment to scientific analysis and best practice on established and new activities





Static Gear and Molluscan Culture

- No significant environmental impact of fixed gear fisheries or molluscan culture operating to best practice
- No reason to inhibit activities in any marine protected areas
- 2012 CFP actively encouraged development of shellfish farming
 - Supporting improved security of tenure
 - Promoting role of shellfish in a healthy diet
 - Supporting large scale offshore mussel farming
 - Recommending access to all mussel seed stocks





Mobile Gear

- Initiatives to minimise adverse environmental impact concentrated on mobile gear fisheries (Nephrops/Scallops)
- Environmentally sensitive areas closed to scalloping
- Closed 3nm scallop dredging zone in most areas of the coastline
- Suitable 3 to 12nm areas specifically designated for scallop dredging
- Industry agreements to minimise interaction between potters and scallopers
- Inside 3nm scallop exploitation confined to diving





Nephrops

- Whole industry accepts grids and square mesh panels to minimise by-catch of whitefish
- EU research on gear design, regional distribution of gadoid fry and diurnal variation enhanced best practice
- Emphasis placed on catching at peak season for quality
- Areas set aside for Nephrops fishing with creels





Naturalised Species

- Control efforts focus on pest species rather than commercial species
- Following series of warm summers, greatly expanded pacific oyster distribution with huge production increases
- Pacific oyster redefined as acclimatised and naturalised rather than alien
- SNCAs worked with industry to maximise exploitation and restrict artificial redistribution
- Oyster effort concentrated on restoration of the native oyster
- Operational practice designed to minimise disease





Polluter Pays

- Greatest threat to the marine environment is pollution
- Principle that polluter pays for environmental damage re-established
- Water Framework Directive implemented and include clear criteria for shellfish waters, targeting A grade classification
- Conservation lobby joined industry in recognising pollution as the major environmental threat recognizing the low impact nature of shellfish cultivation





Improved Water Treatment

- Complexity of pollutants and acceptance of treatment under-capacity
- Greater controls on sewage overflows, increased storage and treatment capacity became priorities
- Immediate notification of pollution events legally required
- By 2014, sewage works required to remove common viruses
- Industry installed secondary treatment at depuration





Monitoring Pollution in Shellfisheries

- Mechanisms for monitoring accidental or planned pollution events totally overhauled
- Current discredited methods replaced by automatic monitoring with immediate alerts for shell-fishermen
- Automatic system generated operational cost savings
 - Enabling industry to react and manage businesses during pollution events
 - Significantly improving public health safety
 - Backed by Industry final product testing





Classification of Shellfish Waters

- Improved collaboration with the Food Standards Agency
- Most Probable Number methodology replaced by Standardised Impedance Testing
- Level playing field accepted by all European Countries
- Lower costs and many downgraded waters reverting to Class A
- Access to retail markets





Toxin Management

- Mouse testing abandoned and replaced by LCMS
- New confidence that testing actually relates to human risk
- Together with new controls on norovirus, reestablishment of consumer confidence in molluscan shellfish culture





Crustacean Management

- Delegated management responsibility for territorial waters brought great benefits for crab and lobster management
- Clear distinction between territorial and CFP fisheries
- Inshore diversion of redundant offshore whitefish effort reversed
- Acceptance that crab stocks over-exploited and market unstable
- Regional inshore crab management regimes established

Ken Lynham



Regional Inshore Crab Management

- Regional inshore management regimes:
 - Restrict vessel size to 10 or 12 metres within territorial waters
 - Pot numbers capped to maximum 1500 pots reducing to 1000 over five years, all with individual pot permits
 - Increased minimum landing sizes, ban on the removal of claws and use of crab as bait, and requirement to land
 - Industry initiative to concentrate on quality of landings, maximum value adding and development of premium products
 - Special licences/training for youngsters with under 7m boat





Lobster Management

- Lobster stocks had benefited from earlier increases in MLS to 90mm and localised bans on landing berried animals had resulted in stable LPUE
- Since 2010, emphasis on lobster quality, value adding and market development
- All IFCAs banned the carrying or landing of berried lobsters





Restoration of Rural Fishing Communities

- Thrust of separating inshore fisheries in the 2012 CFP was to restore economically viable rural fishing communities
- All vessels of whatever nationality required to comply with national State fisheries regulations
- Regional management plans towards maximum sustainable yield designed to :
 - Allocate preferential fishing effort allocation to under 10m fleet
 - Regenerate rural fish markets
 - Include recreational fishing in fishing allocation with bag limits, reporting procedures and same conservation aims



Phasing Out Preserved Historic Practices

- Historic practices granted to other EU States in the 6-12 mile zone contrary to the principles of open CFP access
- No adjustment for increased capacity and efficiency over past 40 years
- National restrictions on vessel size and gear, enhanced technical measures, ban on discards and landing requirements constrained this fleet which moved to CFP waters beyond 12m
- 2022 CFP will restrict effort in the 0-12 mile zone to vessels of the individual Member State
 - Easier to manage, less costly to enforce and further promotes rural fishing communities



Maximising the Value of Shellfish

- Shellfish Industry re-geared to :
 - Sustainably managed and accredited fisheries
 - Landing highest quality material
 - Maximising value added in vertically integrated operations
 - Cooperatively developing regional brands and markets
 - Access to retail (Class A waters) and promotion of health benefits into institutional catering market
 - Regional cooperative high pressure treatment improved product integrity, increased yield and shelf life and opened new opportunities for premium value added products (Asia)





Maximising the Value of Shellfish

- Previously under-utilised shrimp, cockle, winkles, razor clam, Manila clam, squid and spider crab species were developed into new innovative products
- The SAGB supplied quality support material for businesses to use in their marketing
- More balanced 50% domestic/50% export markets generated better price and volume protection for most species





How Was All This Paid For?

- Bureaucracy removed and replaced by Science
- Polluters pay for all pollution costs
- All subsidies removed from fishing operations
- Zero tolerance enforcement led to full compliance and low costs
- Industry willing to pay for access to well managed fisheries
- Government and EU grant funds redirected.





Shellfish Funding

- All UK Government and EU fisheries funding diverted to :
 - Support for independent fisheries science
 - Support for small scale rural fishing communities
 - Initial management and enforcement costs
- New Industry Levy distributed direct to trade associations, national seafood bodies and fishermens' organisations.





Independent Fisheries Science

- Fisheries management plans by species and fisheries towards maximum sustainable yield
- Verification of sustainability and formal accreditation
- Design of environmentally sensitive fishing gear and best practice operation
- Impact of global warming on species recruitment and distribution





Support for Small Scale Rural Fishing Communities

- Optimising inshore fleets
- Aquaculture and security of tenure
- Cooperative high pressure processing machinery
- Establishment of rural community fish markets





The 2020 Shellfish Industry

- Shellfish production doubled and its final sales value quadrupled between 2010 and 2020
- Shellfisheries are sustainably managed and exploited, to best practice, yielding highest quality products for profitable businesses and regenerated rural fishing communities.





The 2020 Shellfish Industry

 Production of Shellfish (wild-caught and cultivated) 2008 and 2020





The 2020 Shellfish Industry

 First sale value of Shellfish (wild-caught and cultivated) 2008 and 2020





The 2020 Shellfish Industry

 Final sale value of Shellfish (wild-caught and cultivated) 2008 & 2020





Was it all a dream? Let us hope not!



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